WAR, EPIDEMICS AND MEDICINE IN THE OTTOMAN EMPIRE FROM THE BALKAN WARS THROUGH THE GREAT WAR (1912-1918)

by

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Submitted to the Atatürk Institute for Modern Turkish History in partial fulfillment of the requirements for the degree of doctor of philosophy.

Bogaziçi University

2004

An abstract of the dissertation of Oya Daglar for the degree of doctor of philosophy at the Atatürk Institute for Modern Turkish History to be taken June 2004.

Title: "War, Epidemics and Medicine in the Ottoman Empire From the Balkan Wars Through Great War (1912-1918)"

This thesis focuses on the period of Balkan Wars and the First World War, which affected the political history of the 20th century deeply and caused the collapse of the Ottoman Empire, and examines the concerned period in terms of the epidemic diseases. Taking into account that wars are important contributors in the emergence of epidemic diseases, I have attempted to evaluate the destruction caused by the epidemic diseases during the war years and effects of these diseases on the results of the wars in a historical framework.

The Ottoman Empire spent its last century with wars coming one after another and as a consequence had to suffer many physical as well as demographic casualties. With a significant decrease in the population, one of the main factors that had kept the Empire up disappeared and therefore the 600 year-old Empire collapsed at the end of the First World War. This particular study argues that, despite the popular belief, the decrease in the population was mainly caused by the epidemic diseases and health problems, which emerged as a result of the wars, not by the direct armed conflict at the front. Epidemic diseases seen as a consequence of lack of hygiene during the war, congestion caused by mass movements like migration and inadequacy of the health services resulted in death of many servicemen and civilians.

Since the loss of human force during the war as a result of the epidemic diseases directly affected the war making capability of the Empire, the Ottoman government obligatorily placed an importance on the health services, however, despite all efforts, none of the precautions taken brought the desired level of success due to lack of proper health personnel. Nonetheless, precautions taken against the diseases and the struggle made during the war introduced the modern medicine methods into the Empire and as a result important steps were taken for the preservation of both military and public health. Furthermore, it is beyond doubt that the experiences gained in this period, in the long run, constituted the infrastructure of the developments seen in the area of health in the Republic of Turkey.

In short, this thesis examines the epidemic diseases that were caused by the war, the methods pursued by the state in its struggle against the same and the effects of the diseases on the social transformation and on the result of the wars.

Atatürk Ilkeleri ve Inkilâp Tarihi Enstitüsü'nde doktora derecesi için Oya Daglar tarafindan Haziran 2004'te teslim edilen tezin kisa özeti.

Baslik: "Balkan Savaslari'ndan Birinci Dünya Savasi'na Kadar Osmanli Imparatorlugu'nda Savas, Salgin Hastaliklar ve Tip"

Bu tez 20. yüzyil siyasi tarihini derinden etkileyen ve Osmanli Imparatorlugu'nun yikilisina sebep olan Balkan Savaslari ve I. Dünya Savasi dönemini, bulasici hastaliklar konusu çerçevesinde ele alan bir çalismadir. Savaslarin salgin hastaliklarin ortaya çikmasinda son derece önemli bir faktör oldugu dikkate alinarak, bu iki savas döneminde salgin hastaliklarin sebep oldugu yikimlar ve bunlarin savasin sonucuna olan etkileri tarihsel bir çerçevede ele alinmaya çalisilmistir.

Osmanli Imparatorlugu son yüzyilini arka arkaya gelen savaslarla geçirmek zorunda kalmis ve bu savaslar sonucunda fiziki olarak büyük kayba ugradigi gibi beseri sermayesinin de son derece büyük bir bölümünü kaybetmistir. Nüfusun büyük ölçüde azalmasi ile devleti ayakta tutan en önemli faktörlerden biri daha ortadan kalkmis , bu yüzden I. Dünya Savasi'nin sonunda 600 yillik Imparatorluk yikilarak, tarihe karismistir. Bu tezde Imparatorlugun yikilisina neden olan bu nüfus kaybinin, genel kabulün tersine, dogrudan cephedeki silahli mücadeleden çok, savasa bagli olarak ortaya çikan salgin hastaliklar ve bazi saglik sorunlarindan meydana geldigi gerçegi açiklanmaya çalisilmistir. Savas içinde hijyenik olmayan kosullar, göç gibi büyük kitle hareketlerinin yarattigi izdiham ve saglik hizmetlerindeki yetersizlikler dolayisiyla görülen salgin hastaliklar, çok sayida asker ve sivilin ölümüne yol açmistir. Savas sirasinda hastaliklara bagli olarak meydana gelen insan kaybi

Imparatorlugun savas gücünü de dogrudan etkilediginden, devlet saglik islerine zorunlu olarak öncelik vermis, fakat yeterli bir saglik teskilatinin olmamasi dolayisiyla alinan tüm tedbirler istenilen basariyi saglayamamistir. Fakat savas sirasinda hastaliklara karsi alinan tedbirler ve yürütülen mücadele, modern tip yöntemlerinin Osmanli'ya girmesinde etkili olmus ve hem askeri hem de toplumsal sagligin korunmasinda önemli asamalar kaydedilmistir. Ayrica bu savaslarda yasanan tecrübelerin, uzun vadede, Türkiye'de saglik alanindaki gelismelerin alt yapisini olusturduguna ve devletin saglik politikalarinin belirlenmesinde etkili olduguna süphe yoktur.

Özetle, bu tezde savasin sebep oldugu salgin hastaliklarin neler oldugu, devletin hastaliklarla mücadelede izledigi yöntemler, hastaliklarin toplumsal dönüsüme ve savasin sonucuna olan etkisi tarihsel bir süreçte incelenmeye çalisilmistir.

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ACKNOWLEDGEMENTS

This thesis has been a long-lived study, which has helped me to gain a totally new point of view on the historical aspect. The biggest advantage I have attained, however, was that I had the chance to work with many academicians during both researching and writing stages of the same. Therefore, I would like to express my gratitude to all who has contributed into this study. First of all, I would like to thank to my advisor Prof. Dr. Zafer Toprak, who offered me this topic and encouraged me by opening both a research area and a new horizon and who never withheld his invaluable support, to Prof. Dr. Nuran Yildirim who read this thesis line by line, made constructive criticism and guided me correctly with her helpful attitude to the correct sources and references and provided me with invaluable information with her working discipline on this particular area by reviewing my Ottoman transcriptions very carefully, to Prof. Dr. Aykut Kazancigil, who has an in depth information on the medical terminology and guided me in using the same and allowed me to benefit from his extensive library and who never retained his moral support, to Prof. Dr. Toktamis Ates who granted me with the time and moral support I needed during the preparation of this thesis and, by reading my submissions, made me review this thesis in line of his positive criticism, to Chief Colonel Dr. Cemil Senalp who made me benefit from his in depth expertise in the military area and showed his tolerance in replying my queries on military terminology and war discipline with utmost patience, to Prof. Dr. Ayten Altintas, who helped me using the library in Faculty of Medicine of Cerrahpasa, Department of Deontology and who never withdrew her invaluable support. This thesis is the result of the researches made in mostly Prime Ministry Ottoman Archive in Istanbul and Presidency of Military History and Strategic Studies (ATASE). Hence, I would like to thank to the employees of both of

these institutions for their support. Furthermore, I would like to thank to Kathryn Kanzler who edited this thesis.

Once and for all, I would like to express my thanks to my family who has always been by my side spiritually and materially and to my dearest Can, who has showed me patience and understanding and never retained his moral support.

To my family

CONTENTS

CHAPTER II

PUBLIC HEALTH AND EPIDEMIC DISEASES DURING THE FIRST WORLD WAR

INTRODUCTION

> "Triumphant parties of the olds wars were not always the armies with the best commanders or weapons, but most of the time those who were carrying the nastiest microbes to disseminate to their enemies."

Jared Diamond
(from his book Guns, Germs and Steel)

The economic, political and cultural results of big pandemics[1] that have appeared during the historical development process oblige us to evaluate them on the historical level. Epidemics in various periods throughout the history have caused the deaths of millions of people and thus have become indelibly marked in the human psyche. For instance, leprosy marked the Middle Ages, the bubonic plague spread in the fourteenth century from Central Asia to the south and west at an incredible speed and devastated populations around the globe, killing an estimated sixty million people. This epidemic, which started from Central Asia between the years of 1338-1339 and was called by the Europeans as the "Black Death," moved to India and China on one side and to Crimea and Caucasia by going around the Caspian Sea both from the north and the south on the other side, arriving in Istanbul and Anatolia in 1347. Within a year it reached Egypt, Syria, Sicily, North Africa and continental Europe.[2] Black Death, especially during the period it reigned in Europe, 1346-1350,

[1] Pandemic: Epidemic over a wide geographical area.

[2] Michael W. Dols, *The Black Death in the Middle East* (Princeton: Princeton University Press, 1977), pp. 42-43.

destroyed one third of its population and left indelible marks. On the other hand, Michael Dols, who examined the destruction of the plague in the Middle East, reports that approximately 1,000-1,200 people were recorded as dead every day in Cairo in 1348.[3] The plague not only caused demographic trauma but also gave rise to social and economic maladies in both Europe and the Middle East.

In the sixteenth century, syphilis replaced plague, spreading throughout the world by European travelers. This disease, which was recorded to cause the body to be covered with spots from the head to knees, the face to shed flesh in pieces and to result in death within a couple of months, was far more virulent than it is today and therefore the worst natural disaster of the century.

Cholera, which appeared in India in 1768, spread throughout the world along the trade routes in the eighteenth century. However, it made its biggest impact with four big pandemics in the nineteenth century. This disease, seen in India between 1811-1817, turned into an epidemic in 1826 and spread to Russia in 1829 and China in 1831 and then on to Germany, Britain, Ottoman Empire and Africa in west. After the disease was seen in the U.S. in New York and Canada in 1832, it became prevalent throughout the continent. It is estimated that twenty-five million people lost their lives during this first pandemic. The second cholera pandemic, which also originated in India, took place in the years of 1840-1862 and resulted in the deaths of at least one million people. Cholera caused two more big pandemics in the second half of the nineteenth century, between 1863-1875 and 1883-1894, with devastating results. In addition to these pandemics, typhus, typhoid fever, pneumonia, smallpox

[3] Dols, pp. 208-209.

and tuberculosis marked their names on the history of the human race with the mass deaths to which they gave rise.[4]

Lack of knowledge on the causes of the diseases as well as their treatment played major roles in their destructive capabilities. Before discovery of the microorganisms that are the agents causing these diseases, people considered diseases, the reasons for which were mysterious to them, as penalties inflicted by God. Traditional treatment methods depended on witchcraft and mixtures of curing herbs. The common points of these approaches, which showed many differences in accordance with the belief systems, were that the diseases possessed supernatural characteristics and that they were unavoidable. Besides the traditional medicine, a theory called "miasma," dating back to Hippocrates, was prevalent in both Europe and the Eastern World in the sixteenth century. According to this theory, toxic agents created by the decay of the corpses and other materials underground caused the epidemic diseases.

Besides the religious and traditional beliefs, the experience gained due to the repeating epidemics resulted in application of some new methods with the help of reasoning from analogies. The fact that the epidemics proved themselves to be intercontinental threats as of commerce between the Far East and Europe became regular especially deserved attention. Therefore it was decided that international movements should be taken under control and the method of "quarantine" which enabled isolation of persons who contracted the disease and their commodities and supervision of the epidemics. The fact that these precautions limited the spread of the epidemics if they were not stopping them helped the acceptance of their application in Mediterranean and European countries as 14th century. It was seen that as of the

[4] LaVerne Kuhnke, *Lives at Risk, Public Health in Nineteenth Century Egypt* (Egypt: The American University in Cairo Press, 1992), p. 1.

end of 16th century, quarantine methods gained more weight in spite of the reactions given with commercial concerns. The 1720 Marseilles plague played a major role in the acceptance of quarantine applications throughout Europe. The disease that spread from the port cities to inland France and the Netherlands made these arrangements obligatory. With the help of the aforementioned precautions, plague abandoned Western Europe at the end of the seventeenth century and was not seen in North or Middle Europe in 1718, either. Nevertheless, a century more had to pass before it left the Ottoman Empire.[5]

In quarantine, strict control of passengers, pack animals and commodities that were known to have arrived from an area where an epidemic had been seen or those arousing the suspicion of a disease was in question. Generally, passengers were kept waiting at the quarantine stations established at the land boundaries or ports and allowed to continue their voyages after a while if no disease was observed. After the discovery of the microorganisms, whilst the passengers were waiting for the end of their quarantine period, they were having bath and being disinfected. Furthermore, their clothes and animals, all kinds of personal and commercial commodity were disinfected by being washed up, fumigated or treated with high pressure vapor, as per their characteristics.

The main developments in modern medicine both biologically and institutionally took place in the nineteenth century. In this century, the "miasma theory" left its place to "germ theory", which claimed that microorganisms that settled in the body caused certain diseases. Pasteur's demonstration that each sort of fermentation is linked to the existence of a specific microorganism and that each fermentation takes place from unique yeast was followed by his discovery of

[5] Daniel Panzac, *Osmanli Imparatorlugu'nda Veba (1700-1850)*, trans. Serap Yilmaz (Istanbul: Tarih Vakfi Yurt Yayinlari, 1997), p.2.

anaerobiosis, microorganisms that do not need air to survive. Pasteur, who put forth that the microorganisms do not duplicate by themselves (1862), thought that epidemic diseases resulted from microorganisms, as in the case of fermentation. Joseph Lister used phenol against the microbes in the air in order to prevent stinking and rotting in the bone fractures and made a considerable contribution to surgery (1867). Robert Koch discovered that a particular bacteria cause anthrax (1876). Later on, Pasteur proved for certain that the agent of anthrax seen in sheep is the anthrax bacillus (1877). He also discovered that the bacteria known as streptococcus today cause puerperal fever. He dedicated himself to prove that microorganisms cause epidemic diseases and spread of infections in surgery. Robert Koch defined the microorganisms that function as the agents of tuberculosis and cholera in 1880's. These were followed by the identification of the bacillus of diphtheria in 1883 and of typhoid fever in 1896. World of science, upon accepting the existence of microorganisms after severe discussions, initiated the studies in order to destroy the microorganisms and to prevent the damages they give rise to.[6]

The science of epidemiology, which was born with the efforts of the Pasteur Institute in the twentieth century, revolutionized the branch of epidemic diseases, making it possible to stop these diseases, which were once the worst nightmares of all.[7]

In the Ottoman Empire, as in the rest of the world, epidemic diseases were at the top of the list of disasters. These diseases, striking periodically, shook the

[6] Nuran Yildirim: "Tersane-i Âmire Fabrikalarinda Tebhir Makinasi/ Etüv Üretimi ve Kullanimi", in *Dünü ve Bugünü ile Haliç. Sempozyum Bildirileri. May 22-23 2003* (Ed. Süleyman F. Göncüoglu). (Istanbul: Kadir Has Universitesi Yayinlari, 2004) pp. 421-431.

[7] Daniel Panzac, *Osmanli Imparatorlugu'nda Veba (1700-1850)*, trans. Serap Yilmaz, (Istanbul: Tarih Vakfi Yurt Yayinlari, 1997), p.2

Empire, considerably decreasing its population, leaving towns and cities deserted, and causing recessions in agriculture and trade and deaths by famine. Epidemic diseases also affected the diplomatic and commercial affairs of the Empire with the Western world directly. Since the traditional medical theories and religious attitudes were dominant in society up until the nineteenth century, it was not possible to put an end to the outbreaks. Since the diseases were usually accepted as the wrath of God and taking precautions against the same was regarded as rebellion against the Almighty, no action was taken against diseases until the beginning of the nineteenth century. In the plague epidemic of 1820, the officers on duty outside the walls of Istanbul only counted the coffins being carried out and the "*Sûre-i Ahkaf*" (prayer) was read aloud from the minarets of the mosques after the last call for prayers.[8] Desperation in the face of disease either caused a total devotion to religion or large revolts against all values and beliefs, sometimes leading directly to mutinies among the population.

In the nineteenth and twentieth centuries, many epidemic diseases, especially cholera, plague and typhus, were seen in the Ottoman Empire. Ironically, these diseases brought both many disasters and obligatorily modern medicine into the Empire.

The School of Medicine *(Tiphane-i Âmire)* founded in 1827 in order to meet the needs of the newly-established armed forces organization during the reign of Mahmut II is regarded to have been the pioneer of modern medicine and liberal thinking in the Empire. It should be noted that in the attempts to establish a school of modern medicine and in modernization of the medicine, like in many other areas,

[8] Nuran Yildirim, "Tanzimat'tan Cumhuriyet'e Koruyucu Saglik Uygulamalari," in *Tanzimat'tan Cumhuriyet'e Türkiye Ansiklopedisi*, vol. 5 (Istanbul: Iletisim Yayinlari, 1985), p. 1320.

military concerns were kept in the foreground. It is in fact possible to follow these endeavors of reform in the military area, which led to a stronger and more modern army, to the reign of Ahmet III. The opening of schools like the School of Engineering *(Hendesehâne)*, which offered curricula of modern western knowledge, took place in this era. These schools, which were opened out of the organization of *medrese* yet different from them, introduced Western science to the Empire. These attempts at reform in the Tulip Period continued during the reigns of Mahmut I and Mustafa III and efforts were made to reorganize some units of the army with information and technology brought from Europe. However, since these attempts of reform were short-lived and unstable, they failed to bring the desired results.

It can be said that the reign of Mahmut II is the era when the efforts at modernization really succeeded and gained continuity. The most remarkable feature of the period was the endeavor to create "a centralist bureaucracy under the absolute sovereignty of the sultan". The cooperation of religion, the bureaucracy and the armed forces was needed in order to establish this political order of "absolute monarchy of the intelligentsia," as Niyazi Berkes calls it, and therefore the attempts at reform were focused thereon. It is seen that in order to realize this aim, three assemblies representing the power of the sultan were established in the place of the Assembly of Council *(Mesveret Meclisi)*. In these assemblies, the Governmental Council *(Dar-i Sura-yi Bab-i Ali)*, the Supreme Board of Justice *(Meclis-i Ahkam-i Adliye)* and the Military Council *(Dar-i Sura-yi Askeri)*, the Sultan received the strong support of the bureaucracy-intelligentsia and the army. The aim of these three assemblies was to prepare the New Order *(Nizam-i Esasiye)* that Mahmut II had in mind.[9]

[9] Niyazi Berkes, *Türkiye'de Çagdaslasma* (Istanbul: Dogu-Bati Yayinlari, 1978), p. 168.

Another reform attempt of the Mahmut II era in order to establish the approach of the intelligentsia-absolute state was in the military area. For this purpose, the traditional organization of the Janissaries, which defied the central power, was abolished in 1826 and a modern army, which was commanded by the central power, was established in its place. Since the strengthening of this army was deemed as a necessity for the continuation of the political dominance of the Sultan and of the Empire, the efforts of modernization were directed at the armed forces.

It was known that a healthy human force was needed above all in order to reorganize the armed forces in a planned way. As it was not possible to have this healthy human force without accurate vital statistics, it was decided to determine the exact number of Muslims who could serve in the army. The issue was attended to by the Governmental Council *(Dar-i Sura-yi Bab-i Ali)* and the first modern census of the population of the Ottoman Empire was taken in the years of 1828-1829. Mahmut II, aware of the fact that this was the only way of determining those suitable for military service and for taxpaying, emphasized that the census taking should be undertaken with "care and due diligence," especially in Rumelia and Anatolia. This was the thought underlying the establishment of the Ministry of Vital Statistics *(Ceride-i Nüfus Nezareti)* within the body of Ministry of the Interior *(Dahiliye Nezareti)*, where birth and death certificates were kept regularly in the 1830's.[10] Another arrangement made for the reorganization of the armed forces was the establishment of a modern school of medicine.

As indicated above, one of the reasons for the establishment of the School of Medicine *(Tiphane-i Âmire)* was to meet the demands for physicians in the new army. With the establishment of this school, both an important step was taken

[10] Kemal Karpat, *Osmanli Nüfusu (1830-1914) Demografik ve Sosyal Özellikleri* (Istanbul: Tarih Vakfi Yurt Yayinlari, 2003), p. 70.

towards the sanitary organization of the army and an institution that would assume the leading role in the westernization movements arose. As early as 1730, Claude Alexandre Comte de Bonneval, (1645-1747) who was invited from abroad for the modernization of the army, recommended that sanitary companies be established in a modern army.[11] A hospital was established in Üsküdar for the regiments stationed in the era of the New Order *(Nizam-i Cedit)* in 1800.[12] Furthermore, during the reign of Selim III, a modern school of medicine and a teaching hospital was opened in the state shipyard *(Tersane-i Âmire)* by the physician-in-chief Mustafa Behçet Efendi in 1805 and this school remained active until a fire in 1822.[13] However, despite these developments, one cannot say that a modern awareness in the area of medicine towards the preservation of the overall health of the army was prevalent in the Empire. The reforms were mostly oriented to military discipline and techniques.

Upon the establishment of the School of Medicine, *(Tiphane-i Âmire)* modern medical education started in the Empire. Subsequently, a School for Surgeons *(Cerrahhane-i Mamure)* was opened in 1828 in order to train specialized surgeons for the army. Afterwards, these two schools were combined as one in 1838 and reorganized in 1839 and continued education under the name of Imperial School of Medicine of Mahmut, II *(Mekteb-i Tibbiye-i Adliye-i Sahane)* when a young professor of medicine named Karl Ambroso Bernard (1808-1844) was invited from Vienna.[14]

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[11] Ibid., p. 67.

[12] ibid., p. 94.

[13] Adnan Ataç, "Askeri Tip Tarihi," in *Osmanli Ansiklopedisi*, vol. 8 (Istanbul: 1994), p. 567.

[14] The expression "Adliye" in the name of the school is the psuedonym of Mahmut, II he used in his poems, which is an indicator of the fact that the school was opened during his reign. This name became obsolete in time. Nuran Yildirim, "Tiphane-i Âmire", in *Istanbul Ansiklopedisi*, vol. 7, (Istanbul: Kültür Bakanligi ve Tarih Vakfi, 1994), p. 264-265

Mustafa Behçet Efendi, appointed as the physician-in-chief for the third time, made major contributions to the establishment of the School of Medicine *(Tiphane-i Âmire)*. Aware of the importance of military medicine, Mustafa Behçet Efendi srongly defended the modern medicine applications against the epidemic diseases that threatened the overall health of the soldiers. In a letter presented to the Sultan for the inauguration of the State School of Medicine *(Tibhane-i Âmire)* on December 23, 1826, he strongly emphasized that "soldiers of the Restored form of Janissary *(Asakir-i Mansure-i Muhammediye)*[15] and of other military units, the wounded and the sick should be treated and cured based on medical methods both in war and in peace."[16]

Before the modern medicine education, which was initiated solely with military concerns, reached the age of four, the Empire was struck by the cholera pandemic of 1826, which first reached the Eastern Mediterranean coasts and densely populated areas like Alexandria, Cyprus and Syria in 1831 and then arrived in Istanbul and caused many deaths.[17] Against this serious threat, the first quarantine arrangements were made in the Empire upon the admonition of Physician-in-Chief Mustafa Behçet Efendi[18]; ships arriving from the Black Sea underwent quarantine in Istinye, whereas those arriving from the Mediterranean underwent the same

[15] The name of the new army founded by Mahmut II after he abolished the Janissary in 1826.

[16] Ataç, p. 567.

[17] Cholera caused epidemics of different aggravation levels in the Ottoman Empire between 1847-1848, 1865-1867, 1871-1872, 1893, and 1907-1915. For more detailed information, see Yildirim, pp. 1320-1338.

[18] Mustafa Behçet Efendi (1774-1834). Physician-in-chief of the Ottoman Empire three times between 1803-1807, 1816-1821 and 1823-1834. He assumed a leading role in the initiation of modern medicine applications in the Ottoman Empire and he became the founder, first director and professor of the School of Medicine and School for Surgeons. He was one of the pioneers of the establishment of the Quarantine Department. He received the title of professor in the year of 1791 and was promoted to the Ministry of Justice of Rumelia *(Rumeli Kazaskeri)*. Bedi N. Sehsuvaroglu, *Türkiye Karantina Tarihine Giris* 2 (Istanbul: Ismail Akgün Matbaasi, 1958), pp.601-602. For more detailed information,

procedure in Büyükliman.[19] The plague spread in Istanbul in the year of 1836 compounded the already existent danger. During this spread, in which 20.000 – 30.000 died, Kizkulesi in Üsküdar was turned into a plague hospital and was allocated for the treatment of privates. The petition written by the French physician Antuvan Logo, who was commissioned in this hospital to take part in the application of quarantine in 1838, on the quarantine applications was effective in the establishment of the Quarantine Assembly/ High Quarantine Assembly *(Meclis-i Tahaffuz/Meclis-i Umur-i Sihhiye).* This organization was important in that it constituted the beginning of the developments in the preservation of the overall health of society, for quarantine, one of the protective health applications, included precautions for the preservation of the health of both the armed forces and the public. However, the establishment of this organization was not easy for the Sultan or the government. Since it was thought that such an innovation might provoke the opposition and intervention of the religious fundamentalists and lead to serious problems, the Sultan tried to base the quarantine on the rules of Islam. For this purpose, a religious justice assembly was established in the palace and after lengthy discussions, plague was accepted as an epidemic disease and an order based on the rules of Islam was issued for the establishment of the institution. Subsequent to this approval, the Governmental Council *(Dar-i Sura-yi Bab-i Ali)* and the Supreme Board of Justice *(Meclis-i Ahkam-i Adliye)* were united and the efforts for the establishment of the institution were initiated. This incident marked a major step in the collapse of the traditional way of thinking about epidemic diseases in the

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see Feridun Nafiz Uzluk, *Hekimbasi Mustafa Behçet* (Ankara: Ankara Üniversitesi Tip Fakültesi Yayinlari, 1988).

[19] Yildirim, p. 1326

Empire.[20] As such, the developments in modern medicine were closely followed-up until the collapse of the Empire and all new innovations in the areas of bacteriology and virology were started to be applied within the borders of the Sublime Porte almost simultaneously with the rest of the world. For instance, in 1886, some of the professors of the Imperial Medical Society (*Mekteb-i Tibbiye-i Sahane*) were sent to Paris in order to learn about Pasteur's rabies vaccine, which had been administered to humans for the first time in 1885. The sultan of the era, Abdülhamit II, awarded Pasteur with the order of *mecidiye* first class (an order granted within the era of Abdülhamit) due to his successful studies and donated 10,000 French francs to the establishment of the Pasteur Institute in Paris. After these physicians returned after an education of six months, the first Rabies Treatment Center *(Da-ül-kelp Ameliyathanesi)* was established in 1887. Afterwards, the Imperial Vaccine Laboratory *(Telkihhane-i Sahane)* where the smallpox vaccine was produced and administered was put into service in Istanbul in 1892. This was followed by the Imperial Bacteriology Laboratory *(Bakteriyolojihane-i Sahane)* in 1894.[21]

The most important benefit of these innovations in the area of medicine to the Sublime Porte during the nineteenth century was the success in the struggle against epidemic diseases and the subsequent decrease in the death rates. The population of Istanbul, which was 375,000 in 1830, increased to 900,000 in 1890 and then to 1,125,000 in 1912.[22] However, wars, coming one after another, and mass migrations seen as a result of the same in the nineteenth and early twentieth centuries resulted in

[20] The public attitude towards epidemic diseases was of a religious nature in the Empire. The diseases were accepted as the wisdom of God and therefore preservation against them was regarded as a big sin. Osman Sevki Uludag, "Son Kapitülasyonlardan Biri Karantina", *Belleten* 5-6, vol. 2 (April 1938), p. 445.

[21] Ekrem Kadri Unat, *Osmanli Imparatorlugu'nda Bakteriyoloji ve Viroloji* (Istanbul: Istanbul Üniversitesi Yayinlari, 1970), pp. 17-49.

[22] Charles Issawi, *The Economic History of Turkey 1800-1914* (Chicago: University of Chicago Press, 1980), p. 34.

the emergence of epidemic diseases as a serious threat and a major decrease in the population of the Empire.

Wars and Epidemic Diseases

When the history of the world is evaluated generally, it is easily acknowledged that mass movements like war, migrations and trade have played major roles in the emergence of epidemic diseases. The inability to ensure the conditions of hygiene and the inadequacy of health services due to war have always facilitated the preparation of the necessary bases for the diseases. For instance, since sterile wound dressing were not available during the Russo-Japanese War and the Balkan Wars, the wounds became infected and many soldiers lost their lives. A similar situation arose during the 1859 Italian-Austrian War. During this war, in the Army of Sardinia, whereas those who died from war wounds numbered sixteen, the total number of men who died from diseases was 2,182. Napoleon in the letter he wrote to Eugene on March 14, 1809, indicated that the diseases were far more compelling and intimidating than the Austrians.[23] Nevertheless, it would be wrong to think this as a condition unique to the nineteenth century, for the highest number of deaths due to epidemic diseases was seen during the First World War and soon afterwards. During this war, which lasted for four years, the military forces lost eleven million men, eight million due to war wounds and the remainder to diseases.[24]

[23] Samuel Dumas, "Various Influences upon The Loss of Life," in *Losses Of Life Caused by War*, ed. Harald Westergaard (Oxford: At the Clarendon Press, 1923), p. 99.

[24] Fielding H. Garrison, *Notes on the History of Military Medicine* (Washington: Association of Military Surgeons, 1922), p. 200.

Diseases were also a total calamity for the civilians of the combatant countries. Notwithstanding the fact that the exact numbers are not known, more than 600,000 in Italy and approximately 250 million in Britain and France lost their lives due to various epidemic diseases. The number of civilian deaths in Germany was more than 700,000. Furthermore, the Spanish influenza of 1918, which emerged as a natural result of the war, increased the number of casualties considerably. Even when the war ended at the front, the horror created by the diseases continued. According to the official records, approximately 100,000 lost their lives in Britain and Wales due to influenza, and almost the same number of people lost their lives in France from the same cause. The number of casualties due to influenza in Italy was 300,000. Even, despite the geographical distance, the rate of death in New Zealand was ten per thousand in 1917 and to fifteen per thousand in 1918.[25]

Likewise in the Ottoman Empire, wars triggered factors of epidemic diseases and more soldiers lost their lives due to epidemic diseases than those who died while fighting. For example, even though there are no exact figures due to lack of proper statistics taken during the Crimean War of 1854-1855, it is estimated that the losses of the Ottoman Empire due to diseases were more than 85,000.[26] This figure is a clear indication that most of the soldiers lost their lives due to diseases and lack of proper medical help, not during combat. The same picture emerged during the Ottoman-Russo War of 1877-1878. The number of Ottoman soldiers who died from typhus is estimated to have been almost 40,000.[27] The 1897 Ottoman-Greek War was another disaster experienced due to lack of medical aid. According to the official

[25] K.O. Vedel Petersen, "The World War," pp.133-134.

[26] Kemal Özbay, *Türk Asker Hekimligi Tarihi ve Asker Hastaneleri*, vol. 1 (Istanbul: Yörük Basimevi, 1976), p. 41.

[27] Yildirim, p. 1327.

figures of the Ministry of War *(Harbiye Nezareti)* in contrast to 2,000 deaths due to bullet wounds within forty-five days, 38,000 Turkish soldiers lost their lives from various diseases.[28] Apart from the soldiers, many civilians also lost their lives when they were forced to leave their homes and migrate to far away lands. The absence of modern medicine and military sanitary organization played a great part in these results; inevitably, all eyes were turned to the Military School of Medicine.

The Military School of Medicine, *(Mekteb-i Tibbiye-i Adliye-i Sahane)* which had been established entirely on the western style and provided education on modern medicine methods, graduated its first students with an examination that took place in the presence of the Sultan on September 20, 1843. However, it is not possible to say that courses given on military medicine or military education were sufficient until the Second Constitutional Period *(Mesrutiyet).* Although the students began to be trained in Military Hospital of Haydarpasa as of 1870, it was evident that the training given was not in harmony with the conditions of the modern medicine. The students who graduated from the school were appointed with the rank of captain, but their knowledge of army procedures was not sufficient. Wars, coming one after another, clearly revealed the inefficiency of the Ottoman army on medical services. The evaluations made after the Crimean, Ottoman-Russo and Ottoman-Greek Wars underlined the fact that the Military School of Medicine was far from providing an education fit to its purpose of establishment. Therefore, Gülhane Training School and Clinic Hospital *(Gülhane Tatbikat Mektebi ve Seririyat Hastanesi)* (today Gülhane Medical Military Academy) curriculum of which was prepared by Prof. Dr. Robert Rieder and Dr. Georg Deycke, who had been invited from Germany, by taking the military health into consideration, was established in 1898 in order to enable the

[28] Presidency of Military History and Strategic Studies (ATASE), Class no. 2213, D no. 48, F. (1-20)

students who graduated from the Military School of Medicine to gain more information on military medicine. From this date on, it was deemed obligatory that those who graduated from the Military School of Medicine should work as practitioners in this hospital for a period of two years. As of the declaration of the Constitutional Period, the training of the students of the Military School of Medicine on both the military system and military medicine began to be discussed again. With modifications made in the curriculum and the efforts of Dr. Wieting Pasha, Director of Gülhane, courses on sanitary services in the army in peace and wartime and military surgery started to be given. [29]

It was stipulated that the aforementioned arrangements of the authorities of the Constitutional Period would be executed in cooperation with the innovations initiated in the army. When the damages inflicted on the soldiers by diseases were taken into account, it could be seen clearly how the war-making capability of the army was weakened. Therefore, while efforts were made to structure the sanitary units of the army in an attempt to develop the logistic services within the army, some arrangements were introduced in the School of Medicine for the training of the personnel that would provide the said services. However, this projected structure of the army could not be realized due to financial difficulties. The Empire entered into both Balkan Wars and the First World War with these major medical deficiencies. The result was a serious population and workforce loss in both military and civil terms and an economic, political and social disaster created by the same.

[29] For more information on Gülhane, see Tevfik Saglam, *Gülhane* (Istanbul: n.p., 1925); Irfan Titiz: *Gülhane Iç Hastaliklari Klinikleri Tarihi (1898-1953)* (Ankara: n.p.,1960)., Tevfik Saglam, "Gülhane Tarihçesinden Bir Kisim", *Tip Tarihi Arastirmalari 3* (1898), pp. 74-91., Adnan Ataç: *Gülhane Askeri Tip Akademisinin Kurulusu*. (Ankara: GATA Yayinevi, 1996).

Studies in the History of Epidemic Diseases

When the efforts that have been made in writing the history of the epidemic diseases are taken into consideration, we encounter four different approaches. One of them depends on the idea that epidemic diseases have played a major role in the destruction of civilizations and the collapse of empires throughout the history of mankind. One of the most important studies made in this regard is *Plagues and Peoples*[30] by William McNeill. McNeill puts forth that epidemic diseases should not be regarded narrowly as mere biological facts, but as important factors that have marked the eras of humanity and emphasized the importance of smallpox during the discovery of America. He focuses on the idea that in the colonization of America, smallpox played an important part besides the physical pressure and violence used by the Spanish and that the Inca and Aztec civilizations underwent enormous demographic collapses due to this disease. Since members of these societies had not developed immunity to this disease, they lost ninety percent of their populations and therefore collapsed.

This approach can also be seen in *The Black Death in the Middle East* by Michael Dols. Dols puts forth that the plague epidemic in the Middle East in 1347 caused serious casualties. Between one-fourth and one-third of the population of Egypt died which threw the Memluks, the dominant power of the region into a crisis and recession and enabled the Ottoman conquest in the 1510. Furthermore, historians of the European Middle Ages discuss the plague, its historical results and its influence on demography and traditional powers in *The Black Death: A Turning*

[30] William H. McNeill, *Plagues and Peoples* (New York: Anchor Press, 1977).

Point in History?[31]edited by W. Bowsky in detail. In short, this attitude emphasizes epidemic diseases as a strong determining factor in historical development and collapse.

The second basic attitude in the assessment of epidemic diseases as a historical factor relies on the opinion that epidemic diseases are the biggest reflectors of change in the social balance of power, of the emergence of class conflicts, and of deep social changes. Charles Rosenberg, in his book *Cholera Years*, focuses on the collapse of religious fundamentalism in America and its replacement with positivist thinking during the cholera epidemics of 1831, 1849 and 1866. Carlo Cippola, in *Cristofano and the Plague* and *Faith Reason and the Plague in the Seventeenth-Century Tuscana*, examines the feelings, attitudes and behaviors towards plague of the different sections of society in seventeenth century Italy.[32] In this attitude, how the inner dynamics of societies differently reacted to epidemic diseases and how the affairs between the Muslim and European countries developed with the changes in the political and economic balances of power are evaluated.

The third attitude focuses on the fact that epidemic diseases have emerged in different periods of time and the social experience gained from them changed the accepted medical theories and practices. For example, the plague epidemic of the fourteenth century caused the establishment of quarantine organization, which meant the protection of the overall health of society in a systematic way. Similarly, during the big cholera epidemic in London in 1848, it was seen that the health activities of Britain gained a regular structure. Roderick McGrew, one of the historians who is in favor of this approach, in *Russia and Cholera*, argues that the incidents that occurred

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[31] W. Bowsky, ed., *The Black Death: A Turning Point in History?* (New York: n.p.,1971)

[32] Nancy Elizabeth Gallgher, *Medicine and Power in Tunisia 1780-1900* (Cambridge: Cambridge University Press, 1983).

during the cholera epidemic of 1823-1832 changed the traditional facts that had been widely accepted in Russian medicine, caused the development of unique publications on medicine and even contributed to modern Russian literature. On the other hand, Margaret Pelling, in her book *In Cholera, Fever and British Medicine, 1825-1865*, emphasizes the fact that the development of epidemiological theories in Britain caused a medical dilemma and describes its reflections.

Another attitude about the diseases, however, depends on the idea that diseases and the medical methods that may destroy the diseases are effective tools of political power and colonization. Especially in the European political colonialism that grew stronger in the nineteenth century, modern medicine became one of the modern ruling tools of the European powers. Michel Foucault is the strongest defender of the thesis on the effect of modern power forms or, in his own terms, of the methods of discipline that originate from the penetration, rearrangement and colonization capabilities.[33] Since the issue of health provided all of the conditions necessary for these activities, Europe took advantage of this in its colonization plans with great care and diligence.

Nancy Elisabeth Gallagher, in her book *Medicine and Power in Tunisia 1780-1900*, examines the methods of European-style medicine reform in the North Africa colonial system and how the plague, cholera and typhus epidemics seen in Tunisia in these centuries affected the social relationships between Muslims and Europe and the economic and political balance. It is possible to see the same approach in *Colonising Egypt*[34] by Timothy Mitchell. Mitchell examines how the military reforms started by

[33] Thomas Osborne, "Medicine and Epistemology: Michel Foucault and the Liberality of Clinical Reason," *Michel Foucault II, Critical Assessment*, vol. 4, ed. Barry Smart (London: Routledge, 2000), p. 252.

[34] Timothy Mitchell, *Colonising Egypt* (Cambridge: Cambridge University Press, 1988).

Mehmet Ali Pasha under the name of new order *(nizam-i cedit)* in order to strengthen his government were turned into arrangements that expanded throughout all layers of society. In the book, the reconstruction of the cities and villages, the arrangements in education, agricultural reforms, new inspections on the production-consumption cycle and regulations on hygiene and public health are presented as efforts of the government to turn individuals into political subjects who served the existence of the dominant political power. It is alleged that via these arrangements, the discipline and order established in society facilitated the control and surveillance of the overall situation in the country.

It is possible to see the opinion that modern medicine has been used as a tool to strengthen the political power in *Public Health in British India: Anglo-Indian Preventive Medicine 1859-1914*[35] by Mark Harrison. Harrison puts forth that medicine assumed a consolidating role of the colonial order and that Britain strengthened its colonial activities and control via imperialist medical policies in India.

A study on the efforts of the European powers to take the Ottoman Empire under their political influence and economic interests via the use of epidemic diseases in the nineteenth century is Gülden Sariyildiz's *Hicaz Karantina Teskilati (1865-1914)*.[36] The quarantine organization, established in cooperation with the westerners for the sanitary protection of the Ottoman coasts and ports, caused the placement of those ports and coasts and all maritime activities within Ottoman waters under the control of foreign states within a short span of time. This system,

[35] Mark Harrison, *Public Health in British India: Anglo-Indian Preventive Medicine 1859-1914*, eds. Charles Webster and Charles Rosenberg (Cambridge: Cambridge University Press, 1994).

[36] Gülden Sariyildiz, *Hicaz Karantina Teskilati (1865-1914)* (Ankara: Türk Tarih Kurumu, 1996).

which turned out to be sanitary capitulations in time, helped the foreigners to enter even the most sacred places of the Muslims, Mecca and Medina, the entrance to which was forbidden to all non-Muslims. Sariyildiz examines in detail the efforts of the European States to continue to exist in the region as economic and political powers with the help of the quarantine department by bringing the matter of the cholera outbreak in Hedjaz onto the international platform.

LaVerne Kuhnke in *Lives at Risk, Public Health in Nineteenth Century Egypt*, adopts this attitude and explains in detail how the Ottoman governor of Egypt, Mehmet Ali Pasha, tried to strengthen his government by using European medicine in the nineteenth century. Cholera, which emerged in 1831, and plague, which showed its face in 1835, caused a mass population loss in Egypt and Mehmet Ali Pasha, within the scope of the struggle against the disease, started a long-term health reform and thus tried to expand his influence to the most remote places of the country and aimed to establish a central control system. It is possible to see Mehmet Ali Pashas' manipulation of modern medicine as a political tool and the reaction of the public to these arrangements in detail in the book. In a book written by Nancy Elizabeth Gallagher, *Egypt's Other Wars, Epidemics and the Politics of the Public Health*[37], how the malaria epidemic of 1942-1944, the relapsing fever epidemic of 1946 and the cholera epidemic of 1947 played major roles in the initiation of the public health efforts and the influence of British authorities therein are examined.

Two of the aforementioned attitudes have been used in preparation of this thesis. The first is what the destruction of the epidemic diseases has caused in the population and its influence on the weakening or collapse of the dominant political power. The second is the attitude that these epidemics and the social experience

[37] Elizabeth Gallagher, *Egypt's Other Wars, Epidemics and the Politics of Public Health* (New York: Syracuse University Press, 1990).

gained by them changed the widely accepted medical theories and practices of the time. These two attitudes have been examined by evaluating the epidemic diseases that emerged in major wars in the twentieth century in which the Sublime Porte participated, the Balkan Wars and the First World War. The Ottoman Empire went through five wars between the years 1911 and 1923, the Tripoli War (1911), the 1st and 2nd Balkan Wars (1912-1913), the First World War (1914-1918), and the National Independence War (1919-1923). In this time span the Ottoman Empire experienced only twenty-two months of peace. The Balkan Wars, one of the topics of this thesis, was one of the biggest devastations in terms of territory and population, whereas the First World War brought a final end to the Empire.

In the first part of this thesis, the major incidents of the Balkan Wars are described in brief and the epidemic diseases that emerged with the mass migration of refugees during the war are explained in the chronological order. It, however, should be noted here that in spite of the fact that many diseases appeared under the extraordinary conditions of the war, this thesis focuses only on the most catastrophic diseases like cholera, dysentery, smallpox and syphilis, which spread from the battle field to Istanbul and Anatolia. One of the most important points emphasized in this section is the attitude of the state towards these developments, and the military and civil precautions taken against these epidemic diseases. When a general evaluation is made at the end of the war, it is seen that the Sublime Porte was as ineffective and ill-equipped in the area of medicine, as it was in the military area, if not more. This caused great numbers of casualties, not only from artillery or rifles, but from the epidemic diseases, thus weakening the war-making capabilities of the state and influencing the result of the war directly. Having lost one-fourth of its population by the end of the Balkan Wars, the Empire took one step closer to the end. The First

World War was the one that brought the end of the Sublime Porte. The total population of the Ottoman Empire was stated as 26,000,000 at the end of the Balkan Wars (1913). It is seen that the increase of population totally stopped in 1914, the reason of which was the destruction of the First World War. McCarthy indicates that the worst demographic devastation was experienced in Anatolia during this period and that calamities like migration, epidemic diseases and famine returned together with the war.[38] Epidemic diseases constituted one of the main causes of this demographic devastation.

In the second part of this thesis, the public health and epidemic diseases in the First World War are examined comprehensively. The focal points are limited to the fronts opened in Anatolia; which include the Caucasian and Çanakkale. The scope of the diseases is determined in accordance with the format pursued in the Balkan Wars and epidemic diseases like typhus, *humma-yi racia*, cholera, dysentery and malaria that were seen at these fronts and the destruction they caused are examined in detail.

The second attitude appropriated in the thesis is the idea that the epidemic diseases and the social experiences gained as a result of the struggle against these diseases changed the medical theory and practices widely accepted up to that time. Modern protective medical methods, like vaccines, disinfection, cordon and quarantine, were used against the epidemic diseases that emerged with the war; foreign medical specialists were invited from abroad; and the modern health precautions that were applied during both the Balkan Wars and the First World War were enlarged in order to cover the civilians; and efforts were made to abandon the traditional medical methods. The success attained in these applications facilitated the acceptance of these innovations.

[38] Justin McCarthy, *Muslims and Minorities, The Population of Ottoman Anatolia and the End of the Empire* (New York: New York University Press, 1983), p.162.

This thesis has been planned as a detailed examination of wars and health with respect to epidemic diseases, which focuses on both of the war periods. The history of health is an issue rarely dealt with by historians in Turkey, but mostly has been continued with the efforts and attention of the Deontology and Medical History departments of the Faculties of Medicine. Works that deal with the health services within wars are very few since the historians do not usually keep this topic warm. Books that can be treated as the main sources in this topic are mostly those written by the soldiers. For instance, Tevfik Saglam's book, entitled *3. Ordu'da Sihhî Hizmet* (Sanitation Services on the Third Army) is an important source which entirely depends on war records. Tevfik Saglam, who acted as the Chief of Medical Office of the Third Army as of 1915 during the First World War, recorded the health services provided at the Caucasian Front in military health reports, statistics and records in detail. Another work in this area is the book of Dr. Abdülkadir Lütfi (Noyan), who worked on various fronts during the Balkan Wars and the First World War, entitled *Son Harplerde Salgin Hastaliklarla Savasim* (My Battle against Epidemic Diseases in the Last Wars). Noyan wrote about the state of health on the fronts where he worked, the struggle against the epidemic diseases and his experience in the form of a memoir. A similar work is *Bir Doktorun Harb ve Memleket Hatiralari* (A Doctor's War and Country Memoirs) by Dr. M. Dervis Kuntman. Kuntman recorded daily the events he observed and his experiences on the front, to which he was stationed. The only and the most comprehensive work on the issue of wars and health services in the Ottoman Empire in their historical entirety is *Türk Asker Hekimligi Tarihi ve Asker Hastaneleri* (The History of Turkish Military Medicine and Medical Hospitals), which consists four 4 volumes, by Kemal Özbay. In this book, the transformation of the Sublime Porte from its foundation to 1935 is examined together

with the factor of war. The most obstructive part of this book, which contains invaluable information for the researcher, is that it does not include any reference information on the books, articles or archives used. No other works on war and health in the Ottoman Empire, other than some articles, were available. Therefore, the greatest part of the sources used during the preparation of this dissertation is the archive documents. Almost all of them have been used for the first time. In this regard, first of all, the Prime Ministry Ottoman Archives in Istanbul and the Presidency of Military History and Strategic Studies (ATASE) were reviewed. In the Prime Ministry Ottoman Archive in Istanbul, the Administration Office of the Ministry of the Interior *(Dahiliye Nezareti Idare Kalemi)* (DH.ID), Cabinet Minutes *(Meclis-i Vükelâ Mazbatalari)* (MV), the Document Archive of the Sublime Porte *(Bab-i Âli Evrak Odasi Defterleri)* (BEO) (incoming and outgoing documents), the Official Documents Office of the National Security Department of the Ministry of the Interior *(Dahiliye Nezareti Emniyet-i Umumiye Tahrirat Kalemi)* (DH.EUM.THR.) were used. The use of these documents was out of necessity. Since there was no Ministry of Health *(Sihhiye Nezareti)* in the Ottoman Empire, the health services were from time to time executed either by the Ministry of War *(Harbiye Nezareti)* or by the Ministry of the Interior *(Dahililiye Nezareti).* Thus, without disregarding the necessity to review the archives of both of these ministries, research was conducted accordingly. On the other hand, the main difficulty was experienced on the historical period that this thesis covers, since the classification of the ledgers that pertain to the period of 1912-1918 of the Prime Ministry Ottoman Archive in Istanbul has not been completed yet, the sanitary sections of those of which classification has been completed was attempted to be reviewed with utmost care. During the preparation of the first part, which is on the Balkan Wars, the

aforementioned ledgers were mostly used. Furthermore, it should be noted that the minutes of the High Quarantine Assembly *(Meclis-i Umur-i Sihhiye Mazbatalari)*, magazines of the Red Crescent Society *(Hilal-i Ahmer Cemiyeti Mecmualari)*, and issues of *Ikdam* that pertained to this era within the Prime Ministry Ottoman Archive in Istanbul were used on a large scale.

For the part that focuses on the period of the First World War, however, information on a highly limited scale was found in the Prime Ministry Ottoman Archive in Istanbul, whereas no access could be attained to the documents included in the Document Archive of Sublime Porte *(Bab-i Âli Evrak Odasi Defterleri)* since the ledgers of this era are under restoration. Therefore, this part was prepared mainly from the archives of the Presidency of Military History and Strategic Studies (ATASE). ATASE archives include documents and records that are rich in the area of health. It cannot be said that all of the files were examined, due to the limited time; however, it is worth noting that most of the files deemed significant with regards to the scope of the thesis were reviewed. Another significant first hand source used was the Year Books *(Salname)* and reports issued by the Red Crescent Society. Especially *Hilal-i Ahmer Salnamesi* (the Red Crescent Yearbook) and *Hilal-i Ahmer Hanimlar Heyet-i Merkeziyesi* (Headquarters of Women's Auxiliary of the Red Crescent Society) pertaining to the years 1329-1331 (1913-1916) are very important sources that include rich narration and illustrations of the activities of society during these wars. Reports of the headquarters of this society of the years 1330-1334 (1914-1918) provided invaluable information.

Military and civil health magazines of the era, especially *Askeri Tibbiye Mecmuasi* (Journal of Military Medicine), *Ceride-i Tibbiye-i Askeriye*, *Sihhiye Mecmuasi* and *Istanbul Seriyati*, were used on a large scale. It should be noted that

most of the articles published in these magazines were used for the first time. Furthermore, the "guidelines" within the archives of the Istanbul Atatürk Library, the Library Faculty of Medicine of Cerrahpasa and National Library made great contributions in explaining some of the precautions taken during the war. Other than these first hand sources, the books published by General Staff under the title of *Türk Silahli Kuvvetler Tarihi* (History of the Turkish Armed Forces), other Turkish and English books and articles were used in this work.

It is not alleged that this thesis is a complete work on entirely all dimensions of the issue of health for the time period examined, albeit, it is evident that such a broad topic cannot be fully explained in a single dissertation. However, this work can be accepted as the beginning of an historical account of the epidemic diseases and health services developed accordingly during the two wars that contributed most to the collapse of the Ottoman Empire. Without doubt, it will be possible to evaluate other dimensions of this topic in light of the Ottoman archive documents, which will be available to researchers once their classification is finished, newspapers of the era and foreign archives and books and articles that are published on this issue.

ABBREVIATIONS

ATASE	: Presidency of Military History and Strategic Studies (*Askeri Tarih ve Stratejik Etüt Baskanligi)*
ANZAC	: Australian and New Zealand Army Corps
BEO	: the Document Archive of the Sublime Porte (*Bâb-i Âli Evrak Odasi Defterleri*) (incoming and outgoing documents)
BOA.	: the Prime Ministry Ottoman Archives in Istanbul (*Basbakanlik Osmanli Arsivi)*
CUP	: The Committee of Union and Progress
DH.ID	: The Administration Office of the Ministry of the Interior (*Dahiliye Nezareti Idare Kalemi*)
DH. EUM. THR.	: The Official Documents Office of the National Security Department of the Ministry of the Interior (*Dahiliye Nezareti Emniyet-i Umumiye Tahrirat Kalemi)*
MU. SIH.	: The Minutes of the High Quarantine Assembly (*Meclis-i Umur-i Sihhiye Mazbatalari)*
MV.	: Cabinet Minutes (*Meclis-i Vükelâ Mazbatalari*)
OHAM	: Magazine of the Red Crescent Society (*Osmanli Hilal-i Ahmer Mecmuasi)*
TSK	:History of the Turkish Armed Forces (*Türk Silahli Kuvvetler Tarihi*)

CHAPTER I

PUBLIC HEALTH AND EPIDEMIC DISEASES DURING THE BALKAN WARS

The Balkan Wars were one of the biggest defeats seen in the history of the Ottoman Empire. The decline and territorial losses of the Sublime Porte, which had begun with the Karlovitchi Truce in 1699, resulted in the loss of almost the entire region at the end of the Balkan Wars. The reason for such a result cannot possibly be explained solely by recounting military or political mistakes. To acknowledge the reasons of such a disaster, social problems like migration, famine and diseases experienced after the war, the attitude of the state towards them all and the influence of these facts on the consequences of the war must be evaluated.

The Pre-War Period: General Situation

From the time of the declaration of the Constitutional Regime (*Mesrutiyet*) to the Balkan Wars, no powerful government, which could successfully steer the domestic and international politics, came to power in the Ottoman Empire. Eight governments within this period failed to create permanent solutions to the problems or to successfully intervene in the ongoing incidents since they remained in power for short spans of time. In this period, the Ottoman Empire faced huge problems in both domestic and international politics. The commotion in Syria, Hedjaz and Albania, the rebellion of Yemen, the war that began with Italy's attack on Tripoli on September 29, 1911 in an attempt to take advantage of the corruption in the government and the inner turmoil dragged the Empire to a large impasse.

One of the major problems that the Ottoman Empire faced was the nationalist movements that arose in the Balkans. The nationalist trend that came onto the scene with the French Revolution influenced the world as a whole, mainly Europe, within a short time. The rise of the nationalism not only resulted in the appearance of two significant powers (Italy and Germany) and a major change in the balance of powers in Europe, but also made the Balkans the centre of the European diplomacy after 1870 by raising nationalist feelings.[39] Therefore, the Ottoman Empire had to deal with the problem of nationalist movements not only in domestic politics but also in the international arena. Beginning from the Second Constitutional Period, the current of "nationalism" strengthened among the non-Turkish nations. Balkan nations like Bulgarians, Serbs, Montenegrin, Greeks and Albanians, subjects of the Empire, demanded administrative autonomy or independence within their territories. They started movements with societies and armed resistance organisations.[40] These uprisings, the rise of the Balkan comitadjis and assassinations were the main issues that concerned the Ottoman officials at that time. Foreign support given to each nation drove the issue into an international deadlock, while these first appeared as a domestic problem.

However, the solution seeking of the Sublime Porte was focused on an entirely different area. The administrative officials of the government emphasised "union of the nations" (*ittihad-i anasir*) policy, trying to use the Muslim-Christian or the union of the folks formulas as a political tool. The aim was to ensure the continuance of the Empire and to prevent its dissolution. This centralist approach failed to bring a solution to the problem. For the Balkan nations, the supra-identity

[39] Fahir Armaoglu, *20. Yüzyil Siyasi Tarihi* vol I (Istanbul: Türkiye Is Bankasi Yayinlari, 1991), p. 99.

[40] Andre Gerolymatos, *The Balkan Wars* (USA, n.p., 2002), p. 132.

creating project of a politically weak and powerless state which was economically under foreign control, suffering due to a heavy burden of debt, crushed under the capitulations and culturally aloof was not promising. Hence, these expectations, which were widely different from one another, were among the most evident indicators of the diffusion of the Empire over time. Finally, the Balkan nations obtained their independence with the support of the European countries. The problem was now to enlarge their territories in line with their historical backgrounds, thus meaning that their struggle against the Sublime Porte had not ended yet.

The newly-independent Balkan States could not be expected to enter into a war against the Empire by themselves. Animosities between them hindered a common action. The main problem was Macedonia. Since all of the Balkan States claimed Manastir, Kosovo and Selanik, they fought amongst themselves than against the Turks for years[41]. There were disagreements also on other Balkan territories. Serbs, Bulgarians, and Montenegrins, who all belonged to the same ethnic group, were enemies for that reason.[42] Besides the division of the territories, there was an ongoing struggle between the churches in Macedonia after 1870 when the Bulgarian and Serbian churches became autocephalus. It was not certain which churches and schools belonged to whom, which suited the Sublime Porte.[43] Nevertheless, a mistake made by the Committee of Union and Progress (*Ittihat ve Terakki Partisi*) provided a final solution to the problem of the Balkan States, and thus facilitated

[41] Jacop Gould Schurman, *The Balkan Wars 1912-1913* (London: Oxford University Press, 1914), pp. 30-31.

[42] Ibrahim Artuç, *Balkan Savaslari* (Istanbul: Kastas Yayinlari, 1988), p. 66.

[43] Artuç, p. 71.

their alliance. The Law on Churches and Schools enacted by the government on July 3, 1910 sorted out the religious problem between Bulgaria and Greece.[44]

Subsequent to the enactment of the law on churches, Russia and Bulgaria launched a new political idea, according to which a new Balkan union was planned to be established under the political dominance and pressure of Russia. The main underlying aim of this idea was to create a power that could be directed against both Austria and the Ottoman Empire. Bulgaria, aiming to realise this plan, attempted to conclude a pact with Serbia and the pact of alliance of Serbia-Bulgaria was signed through the Russian Tsar on March 13, 1912. At the same time, Bulgaria, in the midst of all, entered into negotiations with Greece and concluded a mutual assistance pact on May 29, 1912 and a military agreement on September 22. No territorial sharing was incorporated in order not to drive the pact into a deadlock.[45] Montenegro, who did not want to be excluded from the sharing of the territories of the Sublime Porte, joined the alliance of the Balkan States on August 1912.[46]

The Ottoman Empire did not become aware of the alliance between the Balkan States until it was too late. The main reason for that was the growing struggle for power in the domestic sphere. The opposition, who blamed the Committee of Union and Progress (CUP) for the incidents that had occurred after the declaration of Second Constitutional Regime, caused the government to be focused on the conflict within the party. At last, the CUP, fearing that the discord might lead to a coup d'etat, withdrew from the government on July 16, 1912, leaving its position to the

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[44] *Türk Silahli Kuvvetleri Tarihi (TSK), Balkan Harbi'nde Yanya Savunmasi ve Esat Pasa* (Ankara: Genelkurmay Basimevi, 1983), p.14.

[45] *TSK, 1912-1913* vol. 1 (Ankara: Genelkurmay Yayinlari, 1970), p.48; Also see, L.S. Stavrianos, *The Balkans 1815-1914* (USA, n.p., 1963), p.113; also Schurman, p.35.

[46] For the complete texts of the pacts of alliance among the Balkan States, see, I.E., Gueshoff, *The Balkan League*, translated by Constantin C. Mincoff (London, J. Muray, 1915), p.112-141.

opposition. The new cabinet was comprised of highly experienced but very old statesmen like Gazi Ahmet Muhtar Pasha, Kamil Pasha, Hüseyin Hilmi Pasha, the chief religious official in Ottoman Empire (*Seyhülislam*) Cemalettin Efendi, and is therefore known as the "Grand Cabinet." (*Büyük Kabine*) The Grand Cabinet, defined by Aydemir as "the shortest, the most unproductive and the most exhausted cabinet of our near past" had to enter the Balkan War eighty seven days after it came to power.[47]

Preparations for Mobilisation

The Ottoman Empire entered the Balkan Wars with a military staff which was suffering from serious deficiencies and with an incomplete war plan. Comprehensive reform efforts had been initiated within the body of the armed forces with the Constitutional Regime. The structure of the military staff had been rearranged and a legislation called the "Regulation for Military Organisation" (*Teskilat-i Esasiye Nizamnamesi*) was adopted on July 9, 1910 in order to ensure technical and military development.[48] Furthermore, a group of foreign experts arrived at the Sublime Porte to reform the army and some military officials were sent abroad for educational purposes. Nevertheless, the military reforms commenced on September 1910 were not completed since soon after the Tripoli and Balkan Wars started.

After the declaration of mobilisation during the Balkan Wars, the Sublime Porte attempted to make up the deficiencies and to prepare the war plans at a great speed.

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[47] Sevket Süreyya Aydemir, *Makedonya'dan Orta Asya'ya Enver Pasa (1908-1914)* vol 2 (Istanbul: Remzi Kitabevi, 1995), p.284.

[48] *TSK, Balkan Savasi* vol. 3, part 6 (Ankara: Genelkurmay Yayinlari, 1996), p.95.

Nevertheless, since the state entered into war sixteen days after the mobilisation had been declared, neither war plans nor logistic preparations were made nor could staff deficiencies be made up.

One of the most serious troubles undergone during the mobilisation was the fact that the military staff was below strength, in which the wrong policies pursued in the army in the pre war period played a major role. Soon after the Grand Cabinet came to power, 75,000 trained servicemen (120 battalions) were demobilised from the Ottoman Army.[49] However, the Ottoman armies should have gathered together without losing any time since the Balkan States declared mobilisation in secret on September 30, 1912. It was impossible to make up the deficiencies in a short time since the vacancies created by demobilisations constituted almost half of the armed forces. The armed forces were further weakened due to the fact that 35,000 servicemen, most of whom belonged to the Istanbul Army, had been sent to Yemen with the Chief of General Staff two months earlier and some units in Selanik and Istanbul had been redeployed to Izmir after the Italians occupied Dodecanese.[50] Therefore, a crucial deficiency in the military staff was seen in the armed forces of Sublime Porte when the mobilisation was declared on October 1.

The Ottoman Empire was considerably weak in administration of the army and in activities such as logistics. A logistic provisioning troop, established in non-activity supply service behind the front, was to be engaged in some arrangements like the establishment of food and supply posts and necessary support facilities, but somehow these plans were not executed, although provisioning troops at the front was crucial for winning a war.

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[49] Ali Fuat Türkgeldi, *Görüp Isittiklerim* (Ankara: TTK Yayinlari, 1984), p.57.

[50] Artuç, p.109.

With regards to health services, creating a clean environment free from epidemic diseases, taking precautions to prevent the spread of the such diseases from the inland and the area behind the front to the front, and engaging in sanitary services for preserving both human and animal health are among the fundamental duties of a logistic provisioning troop. Troubles seen in this organisation directly affect the performance of servicemen at the front. Therefore, execution of projects of war operations and logistic system plans together during war is an issue that should be focused on attentively.

It should be noted here that the Sublime Porte was most of the time extremely inefficient in logistics. This fact played a considerable role in losing most of the wars. Sanitary services, one of the main branches of the logistic activities, were always on the agenda of the Ministry of War (*Harbiye Nezareti)*; nevertheless, the desired level could not be attained in this area despite the efforts. Due to lack of knowledge and organisational deficiencies, it cannot be said that the arrangements made before the Balkan Wars were a success.[51]

Upon acknowledging the logistic system as a supplementary of the projects of war operations and becoming aware of its influence on the result of the war, the General Staff introduced a regulation entitled “Regulation for Services of Logistic Provisioning Troops” (*Menzil Hidemat-i Nizamnamesi*) in 1911.[52] In accordance with this regulation, each and every location from the front to the inner parts of the country were divided into three as “army operation,” "logistic provisioning area", and "inland area," and a detailed project of war operations was drawn. It was explained in detail how each kind of logistic facility and staff would be deployed in

[51] Tevfik Saglam, *Büyük Harpte Üçüncü Orduda Sihhi Hizmet* (Istanbul: Askeri Matbaa, 1941), p.2.

[52] *TSK (1908-1920)* vol. 3, part 6 (Ankara: Genelkurmay Yayinlari, 1971), p.456.

each area determined and how these would be operated. *Menzil Hidemat-i Nizamnamesi* was publicly announced and enacted on the same date with other regulations ruling services like health, veterinary and transportation. Based on this regulation, the health plan for the Balkan Wars was prepared as follows:

During the war, "base hospitals" and "logistic provisioning and war hospitals" were to be founded for sick and wounded servicemen in predetermined places. Base hospitals with capacities of 15,000 beds in Hadimköy and Çatalca; 3,000 beds in Tekirdag, Gallipoli and Çanakkale; 1,000 beds in Dimetoka; 2,000 beds in Dedeagaç, Gümülcine, and Iskeçe; and 2,000 beds in Izmir, with a capacity of 23,000 beds in total, would be founded. Logistic provisioning and war hospitals with capacities of 10,000 beds would operate behind the zones of conflict and sixty railway cars for the sick and two ships for the sick and for transportation purposes would be made available.[53]

This regulation, prepared entirely in accordance with German management principles, was applied during the Balkan Wars, the First World War and the Independence War. However, one cannot say that the application of the regulation during Balkan Wars was successful. The modern principles determined were not in harmony with the organisational structure of the Ottoman army. The calculations made for the logistic support in the plan were not in line with the needs of the country based on statistics. The guides and statutes, which were not in harmony with the conditions of the country, were translated from German into Turkish without making any changes. Many preparations that should have been initiated during peace time were not made until after the mobilisation and many other regulations remained

[53] ibid., p.454.

only on paper.[54] The Ministry of War was unable to provide the contributions necessary for especially health services or the provision of logistic support. As a matter of fact, the campaign preparation facilities foreseen in the plan (medical companies of the divisions, field hospital teams of the corps, veterinary depots) could not be established and some facilities attempted to be founded by the commanders had huge deficiencies of tools and equipment or did not have them at all.[55] Moreover, serious confusion was experienced during the management of the same since no personnel had been trained in using the newly-introduced organisation or equipment. Together with the declaration of mobilisation, all of these deficiencies arose as of the first day and troubles began. With the coming of the sudden defeat, the non-activity supply service behind the front, the preparations for which had not been completed, was overwhelmed.

During the War

Having completed their mobilisation preparations after the pacts of alliance, the Balkan States were convinced that they were in a position to fight the Sublime Porte by themselves. First of all, Montenegro declared war against the Ottomans on October 8, 1912 and took the first and expected step. Successes attained by Montenegro after the declaration of war continued until its siege of Iskodra. These developments encouraged the other Balkan States, who delivered a diplomatic note to the Ottoman Empire on October 13, 1912, demanding that reforms should be made in Rumelia under their control together with the great powers. The Ottoman Empire,

[54] *TSK, Osmanli Devleti – Balkan Harbi (1912-1913)* vol. 3, part.2 (Ankara: Genelkurmay Yayinlari, 1981), p.722.

[55] ibid., p.707.

deeming this note as a challenge and an intervention in its internal affairs, broke off all diplomatic relations with the Balkan States and declared war against Serbia and Bulgaria on October 16, 1912. This was followed by a declaration of war against Greece. In response the members of the Balkan alliance declared war against the Sublime Porte.[56]

It was claimed that public pressure played an important role in Ottoman Empire's entrance into war without completing the necessary preparations. Together with Montenegro's declaration of war against the Empire, due to the influence of the supporters of the CUP, a strong attitude towards war arose both in the media and throughout the society. Pro-war public rallies were held in Istanbul and throughout Anatolia and news of many volunteers willing to enlist in the armed forces began to spread.[57] Masses gathering in the Bâb-i Ali Street awaited the decision of the government. All incoming news was written on blackboards positioned outside of the gates of newspaper offices. However, most of these newspapers were far from spreading the truth. Throughout the war, most of them, with the exception of *Tanin*, which was a supporter of the CUP, continued to disseminate imaginary news, thus abiding by the requests of the government.[58]

Despite the expectations of the public, at first, the government remained cool because the officials of the army reported that the army was not ready for the war. Abdullah Pasha, high commander of the Eastern Army indicated before the declaration of the war that the army was not in a position to fight and therefore war should be prevented by means of diplomacy. Furthermore, in a speech delivered in

[56] Schurman, p.34.

[57] Aram Andonyan, *Balkan Savasi*, trans. Zaven Biberyan (Istanbul: Aras yayinlari, 2002), p.197; Türkgeldi, p.58.

[58] ibid., pp.211-212.

Cabinet, he said that "we cannot even fight against the Bulgarians alone. It should be regarded as a success if we can possibly stop them in Çatalca." Cemil Topuzlu Bey, the *Sehremini* (Mayor) of Istanbul, agreed with him. During a visit to the Palace, he told Ali Fuat Türkgeldi, Chief Clerk of the Chamberlain, that the army was not capable of fighting and therefore the incoming war should somehow be prevented.[59] Nevertheless, despite these opinions and many similar other ones, the government affected by the public pressure in this regard, decided to enter the war.

During the Balkan Wars, the Ottoman Army was divided into two units, known as the Eastern Army and the Western Army. The Eastern Army was to fight against the Bulgarians in Thrace and the Western Army was to fight in Macedonia and Albania, and the lands of the Sublime Porte in Rumelia against the Serbs, Greeks and Montenegrin. It was stated that the Ottoman Army had a force of 450,000 while the overall force of the Balkan States was approximately 510,000.[60] Nevertheless, the effects of the military units at the fronts were different. It was claimed that Turkish forces of 115,000 soldiers had to confront the Bulgarian Army of 200,000 soldiers while the Turkish Army of 175,000 came up against the Balkan Alliance forces of 273,000 in Macedonia.[61] The operational area of Thrace, where the Eastern Army was deployed, was the most significant area during the war due to its proximity to Istanbul and since it was a part of Anatolia; therefore winning or losing this war highly depended on the battles to be fought there.

The Balkan War started with Bulgarian moves toward Kirkkilise (Kirklareli) on October 22, 1912. The Eastern Army's defeat against the Bulgarian army in

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[59] Türkgeldi, p.58.

[60] Ahmet Halaçoglu, *Balkan Harbi Sirasinda Rumeli'den Türk Göçleri (1912-1913)* (Ankara: TTK, 1995), p.15.

[61] Gerolymatos, p.211.

Kirklareli was quick, and caused the army to retreat to the lines of Lüleburgaz. The soldiers withdrew in a disorderly fashion, leaving everything they had to the enemy. Weapons, military supplies and a considerable amount of provisions were left at the front. 200 railway cars, two railway engines and supplies captured after the debacle came in very useful to the Bulgarians. They provided most of the supply of their units in the Lüleburgaz and Çatalca battles they fought in the later stages of the war. Furthermore, they secured both the military and food supplies of their armies to the front easily using the railway cars and engines and transferred the sick and wounded to the hospitals. As alleged by Aram Andonyan, more than half of the sick and wounded who got well owed their lives to the railway trains left by the Turks and to the fact that the roads and routes were not destroyed.[62] This withdrawal by the Turkish army, which was unable to complete its preparations within the short mobilisation period, drove the order, formed as a nucleus, into a state of chaos the Chain of command did not function and the logistic services collapsed. It is not possible to talk about health services in such a state of confusion.

A similar situation arose in Lüleburgaz. The Pinarhisar-Lüleburgaz Battle, which began on October 27, 1912, ended with the defeat of the Ottoman army on November 2, 1912. The army scattered in panic, just as it had in the Kirklareli Battle. One of the difficulties that the soldiers faced was starvation. Tons of food left to the enemy in Kirklareli made the situation even worse. No aid that might be supplied to the army could be received from the inland area, since the cold and rainy October and November weather made the road and routes, which were already broken and ruined, increasingly impassable .The implementation of logistic and health services was impossible. It was devastating for the soldiers, who were deprived of proper clothes or weapons, to stand while struggling against starvation.

[62] Andonyan, p.470.

The withdrawal of Ottoman troops began on October 21. The retreat order was given to the Eastern Army, which took a pounding from the Bulgarian Army on November 5. It was decided that the army would gather behind the Çatalca line. Some of the units were first deployed on the line of Lazariköy-Kestanelik. Some of the servicemen retreated to Hadimköy in an irregular way whereas others withdrew to “Çatalca Post,"the line between Terkos and Büyük Çekmece, which was 35-40 kilometres west of Istanbul.

Epidemic diseases began to be seen among the soldiers who came to Çatalca Post, escaping from Kirklareli and Lüleburgaz. Cholera[63] was at the top of the list. Physical conditions played a major role in cholera's showing its face. Soldiers, exhausted and scattered, retreated in rainy weather, with no regular meals or clean water and under chaotic accommodation conditions. The infected soldiers defecated in the least appropriate places, which in return polluted the water accumulated by heavy rains. Cholera broke out as an epidemic disease when the scattered soldiers crowded in, drank and used the infected waters, in turn spreading the disease to the places they passed on their way.[64]

It was claimed that the privates called at arms were the other reason for the cholera. According to Dr. Abdülkadir Noyan, this epidemic disease was precipitated by some of the soldiers of the detachment from Anatolia and Syria who were cholera carriers. It should be noted that cholera had not been present in provinces like Edirne, Kirklareli or Çatalca before the war. Similarly, no cholera cases had been seen on the coasts of the Black Sea or in Istanbul. Cholera had come to the Ottoman provinces

[63] Cholera: A small intestine infection causing extreme loss of liquid and salt, and heavy diarrhoea. The bacteria usually enters the body via contaminated water and foodstuff. The disease results in recovery or death in 2-7 days. *The New Encyclopaedia Britannica*, vol. 3 (Chicago: The University of Chicago),pp. 258-259.

[64] Abdülkadir Lütfi, “Harp Salginlari,” *Askeri Tip Mecmuasi* 1, vol. 25, (Kanunusani 1339), p.5.

with carriers who had travelled through Iran, Iraq and Syria before.[65] Muhtar Pasha, the High Commander of the Third Army, was of the opinion that cholera had been brought by infected reserve battalions from Anatolia (especially Adana).[66] According to another allegation, there were soldiers who had diseases diagnosed as cholera among the reinforcements coming from Trabzon, Erzurum and Izmir for the new battle.[67] Thus, it was probable that the epidemic spread among the staff of the army through the units transferred from Anatolia. All requisites for the epidemic were present in the army made up of tired soldiers with weak body constitutions in poor hygienic conditions. Furthermore, the outbreak of the disease was accelerated due to the fact that cholera vaccinations was not being carried out in the period.

According to the information provided by the General Staff, cholera was first seen among the units of the armed forces located on the east of the Lazariköy-Kestanelik line on November 2, 1912. Since the precautions taken could not be applied in an efficient manner, the disease spread rapidly. The field hospital of the corps, directed by Tevfik Bey, overspilled, 4,000 patients were transferred to Hadimköy Hospital, the capacity of which was a mere 300.[68] Cholera broke out among the units of the Third Army on November 6, 1912 and the zone of influence of the disease enlarged. Based on figures provided by the General Staff, 496 soldiers of the Third Army caught cholera and twenty-one of them died in a single day.[69]

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[65] Abdülkadir Noyan, *Son Harplerde Salgin Hastaliklarla Savaslarim* (Ankara: Son Havadis Matbaasi, 1956), pp.8-9.

[66] Mahmoud Moukhtar Pacha, *Mon Commandement au cours de la Campacne Des Balkans de 1912* (Paris: Berger-Levrault, 1913), pp.151-152.

[67] Ekrem Kadri Unat, "Osmanli Imparatorlgu'nda 1910-1913 Yillarindaki Kolera Salginlari ve Bunlarla Ilgili Olaylar", *Yeni Tip Tarihi Arastirmalari* vol. I, (Istanbul: 1995), p.62.

[68] Kemal Özbay, *Türk Asker Hekimligi Tarihi ve Asker Hastaneleri* vol. I (Istanbul: Yörük Basimevi 1976), pp.95-96.

[69] *TSK. Balkan Harbi* vol. 2, book 1 (Ankara: Genelkurmay Yayinlari, 1970), p.53.

Transfer of the Servicemen

Since the sick increased among the units of the army retreating on the west of the Çatalca line from the zone of conflict at a great speed, the Medical Office of the Army (*Ordu Sihhiye Dairesi*), fearing that the sick soldiers would spread cholera and other epidemic diseases to the healthy units of the army, decided that the sick should be transferred to Istanbul. New arrangements needed to be introduced in order to prevent the disease turning into contagion during the transfer. It was imperative that the soldiers be medically examined and controlled both before and after the transfer and that the necessary support be given for nutrition and accommodation. The transfer preparations were initiated taking these needs into account.

The Ministry of War received a considerable amount of support from some institutions and organisations with regards to the transfer of the servicemen. The Ottoman Red Crescent Society (*Hilal-i Ahmer Cemiyeti*)[70]was at the top of the list.

[70] Red Crescent Society: Swiss Henry Dunant (1828-1910), who saw the tragic conditions that 40,000 wounded soldiers were under during the war between France, Italy and Austria and who helped them on June 24, 1859, included his experiences in his book entitled *A Memory of Solferino (Un Souvenir de Solferino)*. Dunant, in his book, was asking whether it was possible to establish societies the aim of which was to treat the wounded of war during peacetime. The call of Dunant was not left unanswered. The Red Cross Convention was signed in Geneva on August 22, 1864. The Sublime Porte signed this convention one year later. Dr. Abdullah Bey, one of the professors of the School of Medicine (*Mekteb-i Tibbiye*), in 1867, started to work for the founding of the Society for Aiding the Wounded Ottoman Servicemen (*Mecruhin-i Asakir-i Osmaniye'ye Muavenet Cemiyeti*), which would be called the Ottoman Red Crescent Society (*Osmanli Hilal-i Ahmer Cemiyeti*) later. The legislation of the society, which had 66 founding members, was prepared. Nevertheless, the society could not be founded since the government did not approve the legislation. The Ottoman Red Crescent Society was officially founded on April 14, 1877 with the efforts of the Grand Vizier Mehmet Rüstü Pasha. The society provided some assistance to the ongoing Russo-Ottoman War and was dissolved after the war ended. The society, which was reestablished during the Turco-Greek War of 1897, was dissolved again after the war. The society was founded again on April 20, 1911 for the last time and with no intention to dissolve again, with the efforts of the former Minister of Foreign Affairs (Minister of Foreign Affairs), Rifat Pasha and the attempts of Dr. Besim Ömer Pasha. Nil Sari - Zuhal Özaydin, "Türk Hemsireligine Osmanli Hanimefendilerinin ve Hilal-i Ahmer (Kizilay)'in Destegi", *Sendrom*, Year 4, no.3 (March 1992), p.75. For more detailed information on the Red Crescent Society, see *Osmanli Hilal-i Ahmer Cemiyeti Salnamesi 1329-1331* (Istanbul: Ahmet Ihsan ve Sürekasi Matbaacilik Sirketi, 1329-1913); *1335: 1919 Senesinde Münkad Hilal-i Ahmer Meclis-i Umumisi Heyet-i Muhteremesine Takdim Edilen 1330-1334 Senelerine Ait Merkez-i Umumi Raporu*

The society, as indicated in its charter, considered itself as an equivalent of the sanitary organisation of the army in civilian life.[71] Like the other Red Cross Societies, with which it had an international affiliation, the Red Crescent Society also determined its most important aim as to help the soldiers and citizens who get injured or fall sick during the war.[72] The Society tried to establish its organisation throughout the country in accordance with this aim and even though its organisation was quite young during the Balkan Wars, it became the most significant social aid office of the government.

Encouraging the public to help the servicemen at the front by means of propaganda, the Red Crescent Society found the support it was looking for in all layers of the society in a short time. Since the propaganda was strengthened with the themes of "nationalisation" and "patriotism", besides resulting in a social mobilisation, it turned the war into a national case rather than a concern of the soldiers fighting at the front.[73] It is without doubt that women played a major role in the success of the Society. It is possible to claim that the activities pursued by the Society became effective in all layers of the society together with the establishment of Headquarters of the Women's Auxiliary of Red Crescent Society[74]. Due to this

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(Istanbul: Matbaa-i Orhaniye, 1335); *Osmanli Hilal-i Ahmer Cemiyeti Icraat Raporu, 23 Nisan 1336-23 Eylül 1337* (Istanbul: Matbaa-i Ahmet Ihsan ve Sürekasi, 1338) ; Seçil Karal Akgün - Murat Ulugtekin, *Hilal-i Ahmer'den Kizilay'a* (Kizilay 2000), Zuhal Özaydin, *Osmanli Hilal-i Ahmer Cemiyeti Salnamesi*, Post Graduate Thesis, Istanbul University, 1987 ; Mesut Çapa, *Kizilay (Hilal-i Ahmer) Cemiyeti*, Ph.D. diss., Ankara University 1989; Hülya Alphan, *Hilal-i Ahmer Cemiyeti: Kurulusundan Balkan Savaslari'nin Sonuna Kadar*, Post Graduate Thesis, Ankara University 1987.

[71] Osman Nuri Ergin, *Mecelle-i Umûr-i Belediyye*, vol 6 (Istanbul: Istanbul Büyüksehir Belediyesi yayinlari, 1995), p. 3557.

[72] John F. Hutchinson, *Champions of Charity, War and the Rise of the Red Cross* (Colorado: Westview Press, 1996), pp. 147-149

[73] For the activities of Red Cross Societies for the militarisation and nationalisation of the societies see Hutchinson, ibid.

[74] for the activities of the Society during the Balkan Wars, see *Osmanli Hilal-i Ahmer Cemiyeti Hanimlar Heyet-i Merkeziyesi*, (Istanbul: Ahmet Ihsan ve Sürekasi Matbaasi, 1330).

fact, it can be said that the Red Crescent Society assumed the role of a conciliator between the military and civil institutions during the Balkan Wars in removal of the boundaries between the two.[75] Work carried out to transfer the soldiers was an extension of this. The Commission for Aid of Wounded Soldiers (*Mecruhin-i Askeriyeye Muavenet Komisyonu)* was founded in the Sirkeci Railway Station by the Municipality of Istanbul (*Sehremaneti)* in order to meet the needs of the men transferred to Istanbul. The Red Crescent Society donated 7,500 Ottoman liras to the commission in order to help the procedure.[76] Furthermore, the society made some arrangements in the Sirkeci Railway Station and cars were allocated in order to carry the sick and wounded soldiers to the hospitals. The society made disbursements exceeding 4,000 gold liras solely for transportation. The society also hired a ship to carry sick and wounded soldiers to Istanbul and attempted to meet the aliment needs of the soldiers by providing tea, bread and sugar, both on board the ship and at the Sirkeci Railway Station.[77] Also, the Coastal Sanity Directorate (*Sahil Sihhiye Müdürlügü)*, the general manager of which was Cenap Sehabettin,[78] donated 20,000 gold liras in an attempt to assist the treatment and transfer of the soldiers.[79]

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[75] For detailed information, see Nadir Özbek, *Osmanli Imparatorlugu'nda Sosyal Devlet, Siyaset, iktidar ve Mesrutiyet 1876-1914* (Istanbul: Iletisim Yayinlari, 2002), pp. 318-320

[76] *Osmanli Hilal-i Ahmer Cemiyeti 1329-1331 Year Book* (Istanbul: Ahmet Ihsan ve Sürekasi Osmanli Sirketi, 1331), pp.205-206.

[77] "Ordu Sihhiye Dairesine Muavenet" *Osmanli Hilal-i Ahmer Mecmuasi (OHAM)*, no. 1 (15 Tesrinievvel 1337 / October 15, 1921), p. 36.

[78] Cenap Sehabettin (1870-1943), who graduated from the School of Medicine, lived as a famous author despite he took his honour's degree on skin diseases in Paris and he did not work as a physician other than his duties in the Quarantine Department (*Karantina Idaresi*). He gave lectures on European literature for a while at Istanbul *Darülfünun* (University), the Faculty of Literature, although he was against the national independence movement in the years of armistice. Understanding his fault, he wrote articles supporting the Republic after the victory. Riza Tahsin, *Tip Fakültesi Tarihçesi (Mirat-i Mekteb-i Tibbiye)*, ed. Prof. Dr. Aykut Kazancigil vol. 1-2 (Istanbul: Özel Yayinlar, 1991), p. 38.

[79] Prime Ministry Ottoman Archive in Istanbul (BOA), Meclis-i Vükela Mazbatasi (M.V), D 171, G 13, (1330.Z.6 - November 16, 1912).

The first decision of transfer was issued on November 7. In the wording of the order, it was stipulated that a "sanitary panel" of military physicians should be formed in order to ensure that the transfer would be made in an appropriate order and that the transfer operations should be realised under the medical surveillance and control of this sanitary panel.[80] Subsequent to the decision, sick and wounded soldiers were sent to Istanbul via sea or land routes. Thus Istanbul became both a transfer centre and a front-city. Soon, Istanbul swarmed with thousands of sick and wounded soldiers. The incoming soldiers were tried to be accommodated in tents pitched up in Sarayburnu and Gülhane Park. Thousands of soldiers suffering from cholera lay in Gülhane Park, which was a yard in those days. This constant stream of men caused the city to come up against a serious cholera epidemic. Thus, the Municipality of Istanbul, in a letter to the Ministry of War, indicated that the soldiers suffering from cholera posed a great threat to the capital city and demanded that the transfer of the sick to Istanbul be stopped and the sick be treated in their original place in tents to be erected.[81]

Satisfying this demand indicated herein above took time due to the conditions in which the army acted. The military authorities could not apply the decisions they took for the transfer of sick soldiers properly. The transfer operations turned into a chaos. Thousands of soldiers, accumulated in the railway stations in Thrace, were sent to Istanbul via railway in a disorderly and crowded fashion, without undergoing any medical examination due to the lack of sanitation personnel. Since the healthy and the sick travelled in the same railway cars, it was easy for cholera to spread,

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[80] Prime Ministry Ottoman Archive in Istanbul (BOA), Dahiliye Nezareti Idare Kalemi (DH. ID) 164-2/1, (1331.B.16- June 21, 1913)

[81] M.V, D 170, G 104 (1330.Za.29- November 9, 1912).

which also constituted a great danger to the sanitary security of the railways. In a letter forwarded by the Ministry of Public Works (*Nafia Nezareti*), it was stated that soldiers suffering from cholera entered all stations and trains from Hadimköy to Istanbul, that it was not possible to have them leave these places, and since the corpses of those who passed away could not be taken away, both the railway services began to fail and the health of the employees of the railway company was under a threat. It was demanded that soldiers suffering from cholera be removed from the stations located in neighbourhoods where cholera had been detected and these areas be taken under military control and the soldiers suffering from cholera should, under no circumstances whatsoever, be allowed enter those areas.[82]

The disorder that occurred during the transfer and the danger posed by cholera caused the complaints directed to the army to increase day by day. Since no satisfying action was taken about the situation in some subsequent letters, proposals for solutions were also included. One example in this regard is a letter sent to the Ministry of War by the Municipality of Istanbul on November 9, 1912 (27 Tesrinievvel 1328) marked "urgent" since the transfer of soldiers suffering from cholera under extremely poor conditions constituted a great danger for the capital city. In this letter, it was restated that the transfer should be stopped immediately in order to ensure the application of the precautions taken in Istanbul to fight cholera. The proposal made by the Mayor Cemil (Topuzlu)[83] Bey in this regard was that

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[82] Prime Ministry Ottoman Archive in Istanbul, Bâb-i Âli Evrak Odasi (BOA., BEO), no. 308444.

[83] Cemil Topuzlu (1866-1958) A well-known surgeon and one of the Mayors of Istanbul. Cemil Topuzlu, who graduated from the School of Medicine in 1886, went abroad and became the assistant of the famous French surgeon Peon. He managed to improve the standards of the Military School of Medicine (*Mekteb-i Tibbiye-i Askeriye*) where he began to work soon after he returned from abroad, to reach the European standards. Cemil Bey married the daughter of *Seyhülislam* Cemalettin Efendi, Aliye Hanim, became a professor and a pasha within a short time due to the techniques he developed and the successful operations he made. He founded the first civil school of medicine in

immigrants who were suffering from cholera should be kept and treated in Hadimköy and the surrounding neighbourhoods and should not be sent to Istanbul.[84] For that, it was insistently demanded from the Ministry of War that tents in sufficient number be sent to the relevant area and the patients be kept or treated in the areas in which they were located.[85]

The Medical Office of the Army worked to make new arrangements in response to these warnings and to the gravity of the situation. Nevertheless, since the decisions adopted were deprived of the necessary infrastructure and introduced only temporary solutions, they caused other problems. As such, the precaution was to send the sick and wounded from the operational area to Istanbul in separate groups; as a result of the medical examinations carried out at the ports and in the railway stations, those carrying the epidemic disease were sent to isolation units whereas the others were transferred to quarantine units in Selviburnu,[86]Tuzla and Kavak.[87] However, soon after it was seen that the transfer and settlement of large numbers of sick and weak soldiers in isolation and the quarantine unit was problematic as the places available were not large enough to accommodate all off the soldiers transferred in masses. Furthermore, soldiers who were not sick but carried the disease spread it in

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1908 as the founding dean, which was followed by schools of dentistry and pharmacy. Cemil Topuzlu, who acted as the Mayor of Istanbul twice in 1912 and 1919 for three years in total, pioneered many municipal works which helped Istanbul to become a modern city. Cemil Topuzlu, *80 Yillik Hatiralarim*, ed. Hüsrev Hatemi- Aykut Kazancigil (Istanbul: Arma Yayinlari 1994).

[84] BOA., DH. ID 164-2/1, -15- (1331.B.16- June 21, 1913).

[85] BOA., DH. ID 164-2/1, -20-(1331.B.16- June 21, 1913).

[86] Serviburnu Tahaffuzhanesi (Quarantine Unit) was the name of the centre established between Sütlüce and Beykoz. Tahaffuzhane was established during the reign of Mahmut II Its administration was passed to the Harbiye Nezareti from the municipality in 1327 and as of this date, it was started to be operated as the military tahaffuzhane. For detailed information on the quarantine unit, please see *Müessesat-i Hayriye-i Sihhiye Müdüriyeti* (Istanbul: Matbaa-i Arsak Garuyan, 1327), p.95; also Bedi N. Sehsuvaroglu, *Türkiye Karantina Tarihine Giris*, vol. 2 (Istanbul: Ismail Akgün Matbaasi, 1958), p. 618.

[87] *TSK, Balkan Harbi Sark Ordusu, Birinci Çatalca Muharebeleri*, vol. 1, book 2 (Ankara: Genelkurmay yayinlari, 1993) p. 292.

the places to which they were transferred due to the crowd and poor hygienic conditions. In the telegram dispatched from the Medical Office of Logistic Provisioning Troop (*Menzil Tabipligi*) of Ayastefanos (Yesilköy) to the Directorate of the Sanitary Office (*Sahra Sihhiye Müfettisligi*) on November 14 (1 Tesrinisani 1328), it was indicated that there were more than 3,000 cholera patients waiting in railway cars and that there were no hospitals for their settlement. Furthermore, news were received that another train, carrying soldiers suffering from cholera was to come from Hadimköy and it was stipulated that a large ship be sent to transfer all of these soldiers to the quarantine unit. Otherwise, all of the railway cars would be directed to Istanbul.[88]

Due to the overspill of the sick and wounded in Istanbul and the increase of deaths in Hadimköy day by day, a panel consisting of Dr. Yanko[89] and bacteriologist Dr. Server Kamil[90] Bey, formed under the direct orders of the Chief Commander Nazim Pasha, visited Hadimköy in order to evaluate the situation. They also carried out examinations in Yesilköy on their way back by overland. Seeing that 20,000 cholera and 6,000 dysentery[91] diagnoses were noted in the hospital records, the panel

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[88] BOA., BEO, no. 308444.

[89] Dr. Yanko (1861-1937) Yanko of Bafra, who graduated from the School of Medicine in 1301, and worked at the Maltepe Hospital for a while. After leaving his military duty, he did not assume any official position but earned his living by working as a freelance physician in Sirkeci. He wrote several books and made several translations, also had many articles published in newspapers, especially Servet-i Fünun. Tahsin, p.24.

[90] Server Kamil (Tokgöz) (1881-1943). One of the most important bacteriologists of Turkey. Graduating from the Military School of Medicine in 1902, he worked as an assistant bacteriology professor and afterwards he became the Head of Bacteriology at the Faculty of Medicine. Server Kamil Bey, who acted as the *kâtib-i umumi* of the Faculty of Medicine for a while, was appointed as the Director of Ankara Refik Saydam Hygiene Centre (*Refik Saydam Hifsizsihha Müeessesi*) and lost his life during this duty. Tahsin, p.317.

[91] Dysentery: Common name for the diseases usually defined with symptoms like enteritis, severe pains in abdomen and a sense of twisting in intestines and severe diarrhoea. The disease usually contracts with feaces of people who, despite carrying the disease, do not show its symptoms at all and via contaminated water or foodstuff. In areas where the health conditions are not advisable, flies flying on faeces of the patients help its dissemination. *Britannica*, vol. 4, p. 310.

informed Haci Emin Pasha, Director of the Sanitary Office (*Sahra Sihhiye Müfettisi*), of the situation. Facing such a critical situation, by the order of Wieting Pasha,[92] the Consultant of Director of the Sanitary Office (*Sahra Sihhiye Müfettis Muavini*), the transfer of the cholera patients to Istanbul was cancelled and it was decided that the patients should be sent out of Ayastefanos on November 16 (3 Tesrinisani 1328). In accordance with the order, weak soldiers who were suffering from cholera were to be transferred from Ayastefanos to the Ayamama Farm area, where they were to be kept for a couple of days. Those arousing suspicion of infection were to be sent to Maltepe Military Hospital whereas the others were to be sent to Beykoz via ship. The army was to send tents and other relevant equipment in the necessary quantity to the Ayamama Farm for the related arrangements.[93]

It was further decided that the cholera patients should vacate the stations located in neighbourhoods where cholera had been seen and that these areas should be taken under military control. From there on, cholera patients were forbidden to enter these areas without the relevant permission, the patients were to be transferred in due time without any delays and huts in sufficient number were to be built in Hadimköy and Ayastefanos.[94] Therefore, the difficulties and the threats that the railway companies had encountered previously were eliminated. It was ruled that the soldiers and immigrants suffering from cholera should be sent to the huts erected

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[92] Julius Wieting (1868-1922). He became the assistant of Prof Dr Reider Pasha in Gülhane in 1902 in order to organise the medical education in Turkey. Wietin Pasha, who worked as the Director of Gülhane Hospital from 1907 to 1914 after Rieder and Deycke, tried to turn this hospital into a place where the military physicians completed their internship and were trained as military physicians. Returning to Germany in 1915, he became the Physician in Chief of Nordheimstiftung. Arslan Terzioglu, *Türk-Alman Tibbi Iliskileri Simpozyumu 18 ve 19 Ekim 1976 Istanbul* (Istanbul: Istanbul Tip Fak. Yayinlari, 1981), pp.212-213.

[93] M.V, D 171, G 13, (1330, Z.6 – November 16, 1912).

[94] BOA., DH.ID. 164-1/2 –40- (1331.R.21- March 30, 1913)

without any delay. Based on the same decision, it was resolved that more than 2,000 weak soldiers convalescing in railway cars in Ayastefanos and 2,000 weak soldiers outside the palace in the capital city should be transferred to Beykoz with vessels hired by Cenap Sehabettin Bey. The rental of these vessels was to be paid by the Municipality of Istanbul.[95]

As of the Lüleburgaz battle, the Ministry of War engaged on one side in the withdrawal of troops and the health problems engendered by the withdrawal, and as well as the preparations for a new battle, which was expected to begin any minute in Çatalca on the other. As seen, the health problems caused by the war resulted in a big impasse since the state did not have a determinate health policy. The state, against the difficulties arose during the war, attempted to organise and thus increase health services but the work carried out was not enough, despite all efforts. The Ottoman army confronted the Bulgarian army on the line of Çatalca with this chain of problems and other military concerns.

The Battle of Çatalca began on November 17, 1912 with intensive Bulgarian artillery fire. Since the battle was taking place only 35 km. west of Istanbul, the artillery shots could be heard inside the city. At first, the Bulgarians approached the Ottoman positions by a couple of hundreds of metres; but, this advance was halted by the Ottomans. At this phase of the battle, it was learnt that cholera was widespread in the Bulgarian Army. The Bulgarian forces, following the Turkish forces since the Lüleburgaz-Pinarhisar withdrawal, had contracted cholera and dysentery from the Ottoman lines. Trotsky, who left Sofia on November 26, noted that there were 67,000 dead and wounded in the Bulgarian army, 15,000 of whom were ill. Cholera,

[95] M.V, D 171, G 13 (1330, Z.6- November 16, 1912).

typhoid fever[96] and dysentery constituted serious threats to the army.[97] Especially cholera caused considerable losses in the armed forces of Bulgaria. It was alleged that in Çatalca 29,719 Bulgarian soldiers caught cholera between November 17 to December 3 and 4,615 of these lost their lives.[98]

The Ottoman Ministry of War issued a new order on the date when the battle started ruling that anyone who caught the epidemic diseases should be secluded from the battalions and the regiments and should be treated where they were located. Furthermore, it was strictly forbidden to send the wounded to the hospitals of Hadimköy and Ispartakule since the disease had reached epidemic proportions there. A detailed plan indicating the hospitals to which the wounded would be transferred and the route of such transfer was prepared and sent to all units in order to avoid confusion during the war.[99]

The Transfer of the Immigrants

The disorder flight of the Eastern army together with the defeat drove the public into panic; thousands of Rumelia residents, apprehending the cruelty of the Bulgarian armies and gangs, abandoned their homes and rushed into Istanbul and Anatolia under miserable conditions.

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[96] Typhoid fever: An acute infection disease, of which agent enters the body by drinking contaminated water or eating contaminated foodstuff. *Britannica*, vol. 12, p.5.

[97] Leon Troçki, *Balkan Savaslari* translated by Tansel Güney (Istanbul: Arba Yayinlari, 1995), p. 315.

[98] Richard C. Hall, *The Balkan Wars 1912-1913: Prelude to the First World War* (London; New York: Routledge, 2000), p.35.

[99] *TSK, Balkan Harbi Sark Ordusu, Birinci Çatalca Muharebeleri*, vol. 2, book 1, (Ankara: Genelkurmay Yayinlari, 1993), p. 292.

Both the public and the government faced serious problems during the migration. Refugees fled to the nearest seaboard cities or crowded into railway stations, trying to reach Istanbul or various cities in Anatolia. People, who were unable to board ships or trains, hit the roads in cars on their own or on foot. The state had to make some arrangements for this mass population movement. All affairs regarding refugees were left to the Ministry of the Interior (*Dahiliye Nezareti*). The Ministry, in order to lead the affairs in a planned manner, introduced the Regulation for Settlement of Refugees (*Iskan-i Muhacirin Nizamnamesi*) on May 13, 1913 and enacted some legislation under the laws, in accordance with which the Directorate of Immigration (*Muhacirin Müdüriyeti*) was founded in Istanbul and Commissions of Immigration (*Muhacirin Komisyonlari*) were founded in the provinces.

The Directorate of Immigration, situated in Istanbul, was divided into two sub-commissions under the presidency of the Municipality of Istanbul. Since Istanbul was one of the most important transfer centres, the task of sending the refugees arriving there to the places previously determined by the Municipality of Istanbul rested with *Sevkiyat-i* Commission of the Transfer of Immigrants (*Muhacirin Komisyonu*). All of the food and settlement affairs of the immigrants at the places to which they were transferred were dealt with by the Commission for Settlement of the Immigrants (*Iskan-i Muhacirin Komisyonu*).[100] Due to the intensive increase in the number of refugees, after a while, Istanbul was accepted as a temporary settlement centre and it was decided that the refugees would be sent to the Anatolian cities where they would be permanently settled after the necessary procedures were completed.

[100] H. Yildirim Aganoglu, *Osmanli'dan Cumhuriyet'e Balkanlar'in Makus Talihi Göç* (Istanbul: Kum Saati yayinlari, 2001), p.178.

In the tide of the intensive migration initiated with the Balkan Wars, Ankara, Izmit, Bolu, Bursa, Konya, Samsun, Adana and Antalya were determined as permanent settlement centers. The immigrants, who came from the zones of conflict by ship and train as well as over land route, were first of all oriented towards the nearest ports or railway stations and then either arrived at the said migration centres via one of the transportation means or first travelled to Istanbul and then went to the concerned centres through the help of the *Sevkiyat-i Muhacirin Komisyonu*.

Both railways and sea lane were used during the transfer of immigrants. Those arriving in Istanbul were usually from the Balkan cities (Selanik, Kavala, Varna, Burgaz, Dedeagaç). Since the ships held by the Sublime Porte were not enough to carry all of the immigrants and soldiers ships chartered from various countries were also used in addition to those held by Local Marine Transportation Company (*Sirket-i Hayriyye*). Thousands of immigrants were carried to Istanbul and to their settlement places by ships chartered from particularly Egypt, Austria, Romania, Belgium, Italy, Russia, Britain and even Greece.[101] Vessels arriving at Istanbul did not allow the immigrants to get off but moved on to the quarantine units of Kavak and Manastiragzi where medical examinations and disinfection were made in order to protect and preserve the health of Istanbul and after these procedures the travellers were allowed to enter the city.

Transfer by railway, one the most important transportation means of these days, was made from the regions near Istanbul (Edirne, Kirklareli, Lüleburgaz, Çorlu, Tekirdag, and Çerkezköy). The Eastern Railway Company (*Sark Demiryollari Sirketi*) served this purpose considerably by carrying immigrants from Lüleburgaz,

[101] Halaçoglu, p.61.

Çorlu, Çerkezköy and Selanik to Kumkapi.[102] However, not all immigrants benefited from the railways. Some of those who rushed to the stations in mass in flight from the advance of the Bulgarian troops were turned away because of the insufficient number of trains and because soldiers were being transferred via railway. Railway cars carried hundreds of sick and wounded soldiers and immigrants who almost piled one another in Çorlu Railway Station and in other stations to Sirkeci and Kumkapi railway stations. The mayor of the era, Cemil Topuzlu, narrated this incident as follows:

> Immigrants started to come to our city within a couple of days after war was declared. Alas! What a scene it was and how miserable they were… These unfortunate people mobbed into sailing boats or railway trains and they were getting off at Sirkeci, all hungry, none had proper clothes… Those who hit the roads on ox-carts from their towns and villages, too… the Directorate of Immigration of Istanbul sent some of the Balkan War immigrants to Anatolia little by little. Nevertheless, they were unable to prevent continual accommodation of at least 40-50 thousands of sick refuges who were in need of medical care in our city.[103]

With the apprehension that the refugees who were coming to Istanbul from the battlefields in a scattered fashion might drive the inhabitants of Istanbul into panic, after a while, it was decided that they should get off the train in Yedikule, not in Sirkeci, and they should find shelter in the mosques in Edirnekapi and the surrounding neighbourhoods.

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[102] BOA., BEO. no. 321443.

[103] Cemil Topuzlu, *Istibdat, Mesrutiyet, Cumhuriyet Devirlerinde 80 Yillik Hatiralarim*, ed. Prof. Dr. Hüseyin Hatemi – Aykut Kazancigil (Istanbul: Topuzlu Yayinlari, 2002), p.148.

Epidemic Diseases Seen During the Balkan Wars

Soldiers and refugees, who arrived at Istanbul in masses, faced huge problems both during their transfer and after they came to the city. Finding housing and epidemic diseases were the most significant ones. The fact that the transfer and migration continued despite all precautions taken by the Municipality of Istanbul rendered all services provided insufficient.

Whereas at first it was ensured that refugees were settled in houses, inns and hotels hired by the Municipality, since the number of immigrants increased day by day, a huge accommodation problem arose in the city. Groups of refugees ranged throughout the city in abject poverty, with their animals and personal belongings. Cemeteries, the yards of mosques, empty parcels of land, farms, stations, shortly, each and every location were swarmed with immigrants.[104] They were settled in many areas of the city through the continuous efforts of the Municipality of Istanbul. Hundreds were settled in Zincirlikuyu, Atik Ali Pasa, Fetvaemini, Küçüksu and Edirnekapi.[105] Some were kept outside the city. In accordance with the documents available, 3,800 immigrants were accommodated in huts outside of Yedikule. Furthermore, there were many others who lived in cars outside of Edirnekapi.[106]

George Ramon, reporter of the *Illustration* in Istanbul during the Balkan Wars, related what he saw as follows:

> "We passed the walls of the city and arrived at the cemetery of Davutpasa. The crowd in the cemetery was in full swing, even more than the city. But what a crowd it was! The immigrants spread everywhere with their cars, animals and personal belongings. A group, in pitiful

[104] H.G. Dwight, *Constantinople Old and New* (New York: Charles Scribner's Sons, 1915), pp. 522-528.

[105] *Hilal-i Ahmer Year Book*, p. 226.

[106] ibid., p. 216

condition, was dwelling on graves, under the cypresses and at the base of the wall. The inhabitants of Edirne, expelled from their now invaded country, starving, in misery and the victims of contagious diseases, were all there. Some of these immigrants were living in mosques that had been emptied. Some others were sent to Anatolia where they beg or, if they wish, work in competition with others. Thousands of more were coming every day."[107]

Contagious diseases were another problem for the masses, exhausted and weakened due to long and harsh journeys. Having travelled haphazardly without any hygienic or medical precautions, even with the infected soldiers, in the railway cars, the immigrants caught many epidemic diseases like cholera, dysentery and smallpox.[108] Since they had to share the same environment with the soldiers in the city, the risk of catching diseases increased and added the crowded, contamination, bad weather conditions and malnutrition; diseases became inevitable among the immigrants.

Smallpox

One of the diseases seen among the refugees in Istanbul was smallpox. Upon recognising this disease in the huts outside the walls of Yedikule where the immigrants had been temporarily settled subsequent to the war, the Red Crescent Society informed the Ministry of the Interior of the situation. In a letter sent by Besim Ömer Pasha,[109] head of the Society, to Ministry of the Interior on January 30,

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[107] George Ramon, *Maglublarla Beraber Edirne Sahralarinda* (Istanbul: Kanaat Matbaasi, 1332), p.32.

[108] Smallpox: Common name for epidemic diseases caused by viruses of poxviridae type in humans and domestic animals. It can be especially distinguished with skin eruptions that may gather and discharge pus and leave marks after recovery. *Britannica*, vol. 10, pp.887-888.

[109] Besim Ömer (Akalin) (1862-1940) He pioneered the establishment and development of modern obstetrics, pediatrics, nurse-training and played an important role in the progress of midwifery in Turkey. He was one of the founders of the Red Crescent Society, the Orphanage Society (*Çocuk Esirgeme Kurumu*) and the Tuberculosis Eradication Assosiacion (*Verem Savas Dernegi*). Besim Ömer was the head of the State General Health Directory (*Sihhiye Müdüriyet-i Umumiyesi*) and was elected as the president of the Istanbul University and later as a member of parliament. Inci Hot, "

1913 (17 Kanunisani 1328), it was indicated that smallpox was seen among the immigrants dwelling in some huts outside of Yedikule and in some mosques in the last days and that the concerned disease tended to spread within a short time due to the crowding. It was further stated that a Panel for Sanitary Service to the Immigrants (*Muhacirin Heyet-i Sihhiyesi*) had been established by the Society in order to help these people. The sick were immediately secluded and in order to prevent spread of the disease, two vaccination officers were entrusted with the duty of vaccination in accordance with the Regulation of Vaccination (*Asi Nizamnamesi*). Nevertheless, some troubles were faced during application; refugees who had never seen vaccination before opposed the procedure. Thus, help was asked from the police and gendarmerie and it was even thought not to deny bread to those without vaccination certificates.[110]

During application of the measures taken against smallpox, serious disagreements developed between the Municipality of Istanbul and the Red Crescent Society with regards to the authority and responsibilities. The Society claimed that although thirty-eight smallpox cases had been diagnosed with the help of the Panel for Sanitary Service to the Immigrants to the Immigrants, founded within its body, and the Society had filed a demand to the Municipality of Istanbul that these patients should be transferred immediately to the Hospital for Contagious Diseases (*Emraz-i Sâriye Hastanesi*) in Demirkapi, nevertheless, nothing had been done in this regard despite fifteen days having passed and furthermore, the concerned hospital had been demolished due to reasons unknown. It was further stated that the smallpox had caused terrible havoc among the refugees and if permitted, these patients might be

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Besim Ömer Akalin'in Hayati (1862-1940)," *Yeni Tip Tarihi Arastirmalari* 2-3 (Istanbul 1996 / 1997), pp.213-232.

[110] BOA., DH.ID., 165/13 –2-(1331.Ra.18- February 25, 1913).

transferred to the Immigrants Hospital with a capacity of 100 beds, as founded by the Red Crescent Society in Parmakkapi.[111]

The Municipality of Istanbul, deeming the aforementioned allegations of the Society as false accusations, in an explanatory letter sent to the Ministry of the Interior declared that the Municipality of Istanbul had been aware of the smallpox and measles seen among the refugees since their beginning phase and that the necessary precautions had been taken. Accordingly, the most effective treatment of the smallpox, i.e. the varioli vaccine, had been applied to all refugees without any exceptions and all of the existing patients had been transferred to quarantine stations in Guraba and Etfal Hospitals in Sisli with great effort. If there were one or two patients left in the huts, it was because, even if the municipal police were asked to help transfer them, the families refused. These patients, who were in convalescence, continued to be treated in these places out of necessity. Furthermore, cleaning and purification had been carried out in residential areas with utmost care and diligence and all of the huts had been disinfected.

With regards to demolition of the huts in Demirkapi by Municipality of Istanbul, it was stated that Municipality of Istanbul had acted in accordance with an order sent by the Ministry of the Interior to their organisation on the dates of February 14-15, 1913 (February 1-2 1328) and that the concerned hospital had been moved to Yenibahçe. It was further declared that transfer of those carrying contagious diseases to the hospital with a capacity of 100 beds founded by the Red Crescent Society for the immigrants had not been appropriate due to the conditions of sanitation and that this issue was within the authority of the Municipality of Istanbul.

[111] BOA., DH.ID., 165/13 –4-(1331.Ra.18- February 25, 1913).

The Red Crescent Society, upon these declarations, conducted a new medical investigation in the relevant area with the Panel for Sanitary Assistance (*Heyet-i Sihhiye-i Imdadiye*), incorporated within its body, and declared that there were not one or two but thirty-two smallpox patients. It was further stated that when it was taken into account that smallpox spread in convalescence, even one or two patients in convalescence could cause a major threat in overcrowded areas. Since the necessary precautions had not been taken, deaths continued among these people who suffered from extreme poverty.[112]

This duty and authority disagreement between the Municipality of Istanbul and the Red Crescent Society was terminated through the conciliation efforts of the Grand Vizier. Accordingly, it was requested that the hospital founded in a hut should be demolished and a new hospital be constructed in Yenibahçe Çayiri speedily.[113]

Smallpox was also seen in Izmir during the Balkan Wars. Just as with cholera, smallpox was also brought to the city by the refugees and the inhabitants of the city caught this disease, further to its spreading within a short time. When the statistics are examined, it is seen that the progress of the disease fluctuated from time to time. On February 1913, nineteen persons caught the disease and two of them died. No smallpox cases were seen in March. The disease was seen again in April and continued to exist with a changing intensity. It is indicated in the quarantine records that thirty-four persons lost their lives due to smallpox on July, 1913 whereas in August the same year, the intensity of the disease decreased and the number of the dead was twenty-two. When the distribution of deaths due to the disease per district of the city is examined, it is seen that the incidence smallpox was greatest in

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[112] BOA., DH.ID., 165/14. (1331.R.4 – March 13, 1913)

[113] BOA., DH.ID., 165/13 -9-(1331.Ra.18- February 25, 1913)

Alaybeyi neighbourhood in Karsiyaka. Nevertheless, smallpox was a disease that was not only seen in the city centre, but also in sub districts and villages affiliated with the city centre. The government and the health institutions affiliated with the local government began to take emergency precautions. The vaccination program was the most remarkable among them. The administration of vaccines was made obligatory in the struggle against smallpox. In public announcements prepared and distributed with regards to the disease, it was demanded that those who had not yet had their children vaccinated or who had had them vaccinated more than five years earlier should have them vaccinated immediately. It was also obligatory to inform the authorities of the patients without losing any time. It is seen that legal proceedings were initiated against whom acting in contrary with these demands by hiding their patients from the authorities or those who did not have the smallpox vaccine applied.[114]

Syphilis[115]

Syphilis was another disease seen in epidemic proportions during the Balkan Wars. Since the places where the disease was seen the most were the Black Sea cities, one could think of the possibility that the disease had spread from Russia. The increase in deaths, which were experienced inevitably due to war, from syphilis prompted the authorities to apply emergency precautions. The struggle against syphilis was incorporated into the agenda of the Cabinet and a regulation on the city

[114] Tülay Alim, *Balkan Harplerinin Bitimi ile Birinci Dünya Savasi Arasinda Yerel Basina Göre Izmir,* Master Thesis, Dokuz Eylül Üniversitesi, 1988, pp.143, 151.

[115] Syphilis: Systemic disease caused by the spirochete Treponema pallidum, usually transmitted through sexual contact but occasionally occuring congemitally from infection in the mother. *Britannica*, vol.11, p. 466.

of Kastamonu was prepared[116] in which it was stipulated that in order to prevent the spread of the disease, mobile sanitary panels each comprised of three or four physicians and a pharmacist should be established by the Assembly of Civil Physicians (*Meclis-i Tibbiye-i Mülkiye*) and the General Directorate of Health (*Sihhiye-i Umumiye*) in Konya, Ankara, Edirne, Izmir, Sivas, Yanya (the area including Iraq border, Basra, Mosul, Baghdat).[117] Furthermore, it was also decided that hospitals specialised in syphilis should be established in Sivas and a budget should be reserved to cover the costs of the program.[118] December 9, 1912 (26 Tesrinisani 1328).

Izmir was one of the cities where syphilis was most rampant. Therefore, the Municipality of Izmir established a hospital specialised in syphilis and tried to treat the patients in this way. It is indicated that this hospital was later disaffiliated from the the municipal administration and started to be managed by a special commission. Upon the increase in cases, the City Council decided that fifty beds should be added to this hospital for male patients and a specialised bacteriologist should be appointed.[119] Furthermore, spread of the disease was tried to be prevented by means of sending mobile hospitals, physicians and medicine to the neighbourhoods of Izmir where syphilis was prevalent in parallel with the precautions taken in the country as a whole against the disease.

Other than cholera, smallpox and syphilis, typhus[120] was seen in Izmir during

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[116] BOA., DH.ID., 53/34 -3- (1331.M.6 – December 16, 1912).

[117] BOA., DH.ID., 53 / 34 –5-(1331.M.6-December 16, 1912).

[118] BOA., DH.ID., 53 / 34 –10, 16- (1331.M.6 – December 16, 1912).

[119] Alim, p.152.

[120] Typhus: Common name for infections symptoms of which are sudden headache, shivering, fever, broad pains and skin eruption. Typhus disseminates with arachnoids like lice, flea and acarid. *Britannica*, vol. 12, p. 6.

the Balkan Wars. As far as understood from the statistics of the Health Office, April 1913 marked the high point for cases of the disease. Typhus was seen in twenty-three persons between the dates of February 15-22 and one of them died. Between March 1-7, twenty-five persons caught this disease, whereas in April, this figure increased to sixty. It is acknowledged that the disease totally disappeared in June due to the strict measures taken.[121]

Cholera

Cholera was the most widespread disease during the Balkan Wars. All of the conditions necessary for the appearance of the disease were present during the disorderly withdrawal following the defeat. Cholera started to be seen among the soldiers immediately after the Lüleburgaz Battle and the disease spread among the refugees who moved with them. The transfer of soldiers and civilians that was initiated without taking the necessary precautions despite the danger caused the zone of influence of the disease to enlarge and to reach Istanbul.

The fact that cholera spread among the soldiers and the refugees and became an epidemic constituted a great threat to the overall health of the city. Therefore, the enactment and application of the sanitary precautions were very important. According to the official documents, during the Balkan Wars cholera was first seen on November 6, 1912 (24 Tesrinievvel 1328) in Istanbul. In a letter sent by the Municipality of Istanbul to the Ministry of the Interior, it was indicated that there were cases of cholera and dysentery among the servicemen and immigrants coming

[121] Alim, pp.148-150.

from Çerkesköy following the defeat and that the Chief Commandership should be informed of the situation and should be warned to take emergency precautions.[122]

In another letter sent on November 7 (25 Tesrinievvel 1328) it was stated that similarly cholera patients had been identified among the wounded coming from Tekfurdagi (Tekirdag) in the previous two days via railway and the sea lane and that despite the fact that these men had been transferred to Maltepe Hospital by the Municipality of Istanbul, the capital city faced a serious threat since the transfer of the infected was continuing. It was further demanded that more decisive solutions be sought to this problem, that the transfer of cholera patients to Istanbul be stopped and that these people should be treated in the districts in which they were located in tents.[123]

The government, upon these letters, decided that the refugees should not be allowed to enter Istanbul but would wait in Ayastefanos and Makriköy (Bakirköy) in order to avoid additional crowding and the spread of disease. Thus, officers were posted along the gates of Istanbul. However, despite all obstructions, refugees entered the city by passing over the hills of Rami and Kagithane and proved all precautions taken null.[124] Thereupon, the government tried to transfer some of the newcomers to nearby cities. As seen, although the problems brought by the migration were attempted to be solved through the laws and regulations adopted, serious problems were encountered during their application, which obliged the government to develop new strategies.

Continuing soldier and refugee flow to Istanbul despite the decisions taken

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[122] BOA., DH. ID 164-2/1 – 2- (1331.B.16- June 21, 1913).

[123] M.V, D 170, G 104 (1330.Za.29 – November 9, 1912) and DH.ID, 164-2/1 – 5-.

[124] BOA., BEO, no. 308444.

pushed the Municipality of Istanbul into a deadlock. Therefore, the Municipality continued to send warning letters to the Ministry of War requesting that the transfer of soldiers to Istanbul be stopped in an attempt to come up against the cholera, which was increasing every day. For example, in a telegram dispatched on November 13, (31 Tesrinievvel 1328) it was indicated that cholera had been diagnosed in 200 soldiers among 2,000 weak and wounded soldiers transferred to Istanbul. This posed a serious threat to the sanitary conditions of the city and it was put forth that the Municipality of Istanbul could not possibly assume such a responsibility and therefore the necessary precautions should be effected in order not to stop sending choleric soldiers to Istanbul.[125]

Hereupon, the Ministry of War resolved that the Rami, Davutpasa and Maltepe barracks, which were situated outside the city, should be emptied and the new arrivals should be treated there without entering the city.[126] Davutpasa and Rami barracks were emptied in accordance with the order and were allocated to the wounded soldiers. Nevertheless after a while cholera started to be seen among the soldiers transferred there since no medical arrangement had been made. Upon the rapid spread of the disease and uncontrolled passage of the soldiers to Istanbul, Mayor Cemil Pasha, informed the Ministry of War of the situation at once. In the letter, it was written that cholera was spreading in Davutpasa and Rami barracks since no medical precautions had been taken there and soldiers were leaving the barracks and wandering around the city almost without any control, which posed a big threat to the city. Soldiers suffering from cholera were coming from Ayastefanos to Istanbul by car or on foot and it was warned that the authorities were indifferent

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[125] Ibid.

[126] Meclis-i Umur-i Sihhiye Mazbatalari (MU.SIH.) 13, no. 47, D.no. 2563.

towards the disease. Accordingly, some emergency arrangements were demanded in order to prevent the soldiers coming from both the barracks and Ayastefanos overland from coming into contact with the inhabitants of the city.[127] It should be noted that the same problem, which had previously been experienced with the immigrants, was being posed by the soldiers this time.

Meanwhile, cholera cases began to be seen among the soldiers who were coming from Anatolia and deployed in Kartal and around in order to be sent to Rumelia for the Çatalca Battle under the orders of the Ministry of War. Mayor Cemil Topuzlu, who visited Kartal and Yakacik in order to examine the situation, understanding how serious the issue was, demanded that the government not send these soldiers to Istanbul and that they be treated in regions far away from Yesilköy. Nevertheless, this demand could not be satisfied since troops were needed to reinforce the defence lines at Çatalca. The units in Kartal and around were deemed to be "weak" and were sent to Hadimköy. In this action, it is evident that military concerns were put before the health problems. Disregarded was the fact that diseases had the potential to wipe out the men waiting to fight at the front faster than any armed struggle. As such, the developments made this possibility a fact.

The epidemic spread faster and faster at the front with the reinforcements who had been sent without any measures having been taken. Hadimköy and the surrounding neighbourhoods became a nightmare zone with the massacre caused by cholera.

French journalist George Ramon described what he saw as follows:

> "…we arrived at Hadimköy Railway Station at night. Alas! The condition and unfortunate scene with which we came face to face were beyond all description and thought. Groups of sick, cars, they were all piled up at the station, the sick were being carried from the cars to the

[127] BOA., DH. ID 164-2/ 1 –67-(1331.B.16- June 21, 1913).

> trains. The sound of the vomiting of the victims into the drains was most tragic. The situation was beyond our limits, we ran away. Looking at Cemil Bey in the face, he finally told me: "My dear friend Ramon, we are familiar with wars, bullets or bomb splinters, but what about this?"[128]

Within a short time cholera became a widespread epidemic, both in Istanbul and beyond the city at the fronts beginning from Yesilköy. A telegram sent from the *Menzil Tabipligi* of Ayastefanos on November 14, 1912 explains how serious the problem was. The danger that Istanbul confronted was emphasised and it was further declared that there were 2,500 cholera patients in Sarayburnu and that the quarantine facilities in Tuzla, Manastiragzi, Kavak and Selviburnu were full of cholera patients.[129] Whereupon, the Ministry of War informed the Ministry of the Interior of the situation:

> Whereas the armed forces are under the obligation to provide the settlement and housing of those suffering from cholera in Dersaadet (Istanbul) urgently, there are no tents that these can possibly dwell in. In case the servicemen suffering from cholera, as indicated in the said telegram, come to Istanbul, these will be left to wander in streets in dirt, in the rain and snow and there will be no one to deal with their burial and therefore the general health will be spoiled.

The Ministry of War declared as a solution that one of the islands in the sea of Marmara could be evacuated and those who had caught the disease could be isolated and settled there and in other places deemed appropriate.[130]

Acknowledging the seriousness of the problem, the transfer of soldiers to

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[128] Ramon, p. 96.

[129] BOA., BEO, no. 308444.

[130] Ibid.

Istanbul was prohibited as of November 16 (3 Tesrinisani 1328) and effort was to be made to keep soldiers suffering from cholera outside the city via stricter measures. Refugees were started to be sent to Anatolian cities without stopping at Istanbul. In this way, one of the most important obstacles in the way of the struggle against cholera in Istanbul was eliminated.

Military Precautions

As it is seen in the military correspondence, cholera was present among the troops as of October 23. But, it is alleged that the Ministry of War either did not notice the situation or concealed it and therefore allowing it to turn into an epidemic. Since this resulted in Istanbul being faced with a serious threat, it was also a source of tension between the Municipality of Istanbul and the Ministry of War.[131] It should be noted that criticisms that the Ministry of War had avoided giving the necessary information on military issues to the authorities and had tried to deal with the affairs in secrecy despite all the efforts, were included, though in an insinuated manner, in the correspondences exchanged. Mahmut Muhtar Pasha, Commander of Third Corps pointed out October 26, 1912 as the day when cholera was first seen. Indicating that he had first seen the symptoms of cholera upon his arrival to Çatalca Railway Station, the Pasha stated a date close to the aforementioned date. He wrote that when he had arrived at Çatalca Railway Station, there had been about 400 patients and a considerable amount of corpses from the units affiliated with the 2nd Corps, and he had advised that the sick be boarded on the railway cars available and sent to the area between Yarimburgaz and Küçükçekmece and then transferred to a field hospital to

[131] M.V., D 170, G 104 (1330.Za.29 – November 9, 1912).

be founded with tents and medical equipment to be received from Çerkesköy. Nevertheless, these instructions were only obeyed partially. Since the area after Hadimköy was under the management and control of the General Staff, only two practitioners were sent to the area. The sick were thus left without any tents, medicine, food or physicians.[132]

The Ministry of War declared that cholera had been seen first among the army units deployed on the east of Lazariköy-Kestanelik line on November 2, 1912 (20 Tesrinievvel 1328), and that contrary to the allegations, immediately after the appearance of the disease, "mixed commissions" had been established by the military authorities, and emergency measures taken.[133]

In accordance with the decisions adopted, in order to prevent the spread of the disease, holes were to be dug around the tents for the public conveniences for the soldiers. The earth removed from the holes would be used to cover the faeces and therefore they would not create any danger. It was commanded that new holes should be dug every other day. This procedure was to be followed up and controlled by the commanders of the regions and of the units. The spread of the disease was controlled in the units deployed in the area which observed the concerned orders. But cholera enlarged its zone of influence within a short time since the soldiers who had died in Boyalik had been buried within a very short distance from the tents; the soldiers defecated haphazardly and failed to obey the sanitation rules.[134] It is possible to understand spread of the course of the disease from the information supplied by

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[132] Mahmoud Moukhtar Pacha, p. 151-152.

[133] BOA., BEO, no. 308444.

[134] Özbay, pp. 95-96.

Mahmut Muhtar Pasha. 536 soldiers died from cholera on November 14-15 whereas this figure increased to 952 the following day.[135]

With the continuing aggravation of cholera, the Medical Office of the Army was obliged to introduce new precautions. First of all, due to the spread of the disease, it was strictly prohibited to enrol from neighbourhoods where cholera had seen seen. It was resolved that military detachments, in the headquarters of which cholera had been seen, were to be isolated and divided into squads[136] and treated at their locations. Since cholera was prevalent in the units of Hadimköy and Ispartakule, it was henceforth forbidden to send wounded soldiers to the hospitals of these regions.[137] Due to the fact that maintaining the contact with Hadimköy – Boyalik – created a danger for the whole corps, efforts were made to shift transportation to Istanbul and it was tried to be made over the Black Sea and Terkos routes.[138]

In addition, some precautions with regards to sanitation were to be taken in the tents and headquarters of the military units at the front. It should be noted that sanitary discipline had not been applied in the Ottoman army up before that period. The soldiers would relieve themselves within the headquarters and around the tents. Although septic holes were dug in Çatalca, sanitary surveillance remained insufficient. The Corpses of men and the carcasses of animals were left in the battlefields; the carcasses of horses were never buried but rotten. Water, contaminated under these circumstances, and facilitating the spread of the epidemic diseases, was one of the main causes of cholera and dysentery.

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[135] Mahmoud Moukhtar Pacha, p. 160.

[136] BOA., DH. ID 164-2/1 ((1331.B.16- June 21, 1913).

[137] *TSK*, vol. 2, book 1, p. 292.

[138] Mahmut Muhtar Pasha, *Balkan Savasi* (Istanbul: Güncel yayincilik, 2003), p.138.

Orders were sent to all military units in order to eliminate this disorder and dirt. From then on, the inner and outer parts of the tents were to be kept clean by means of freshly slaked lime and lime milk.[139] Patients suffering from diarrhoea were given appropriate food, also precautions like the treatment of faeces in lime and soaking the clothes in 3% soda and 2% lysole for a while and boiling the same were implemented.[140]

As a result of these precautions, the cholera epidemic at the front lost its effect as of November 27 and totally disappeared by the end of December. However, it reappeared in the units deployed in Kartal and became an epidemic within a short time. Therefore, precautions for the struggle against cholera started to be discussed again in the army.

First of all, upon a decision taken by the Health Commission, it was resolved that some of the soldiers were to be sent to the Quarantine Unit of Kartal and others to tents to be erected on the Kanlimandira heights, across the quarantine unit in Tuzla.[141] Despite the fact that this decision was presented to the Ministry of War and to the Commandership of the Division, the application was delayed. Abdülkadir Noyan, who had been appointed to the quarantine unit of Tuzla by the Ministry of War, indicated that military sanitary measures were being applied with utmost diligence in the units sent to the concerned unit. Accordingly, similar to the previous applications, holes were dig around the tents for the public conveniences of the soldiers and some cleaning rules were imposed. The holes where the soldiers relieved themselves were also regularly cleaned by the sappers. In addition, the soldiers were

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[139] Noyan, p. 7.

[140] Feridun Frik, "Alman Kizilhaçinin Trablus ve Balkan Harplerindeki Sihhi Yardim Hizmetleri Eserinden Memleketimize Ait Notlar," *Dirim* 9 (September 1955), pp.390-391.

[141] BOA., DH.ID. 164-1/2 -25- (1331.R.21- March 30, 1913).

examined in big groups. Those suffering from diarrhoea and those arousing suspicion of disease were isolated in a separate unit of the quarters, the whole area was cordoned off and the eating and drinking of the soldiers were rearranged.[142] Meanwhile, efforts were made to prevent the spread of the disease by means of isolating the soldiers, in whose tents cholera had been detected and by means of sterilising their clothes and personal belongings.[143]

Other than these efforts, the Palu, Harput, Malatya, Dersim and Elazigi battalions, which were deemed as the source of the disease, underwent strict examination and their maintenance was preserved by 100 firemen. It was absolutely forbidden for the soldiers of the concerned battalions to go to villages.[144] Since it was dangerous to let the servicemen wander in the city or go to the downtown region for the purposes of diagnosis, physicians were allowed to enter the places where the patients were kept.[145] Cholera disappeared soon after these precautions were implemented.

Hospitals Established on the Battlefields

In the face of the seemingly unstoppable increase in the number of cholera cases at the front, the General Staff at first decided to transfer the soldiers suffering from cholera to Istanbul. As described above, many cholera patients were transferred to Istanbul via train and within a short time all of the hospitals, quarantines and isolation units in Istanbul were overflowing with patients. A serious hospital crisis

[142] Noyan, p. 13.

[143] BOA., DH.ID. 164-1/2 –68- (1331.R.21- March 30, 1913).

[144] Ibid.

[145] *BOA*., DH.ID. 164-1/2 –25, 86- (1331.R.21- March 30, 1913).

arose in the city. Due to the aggravation of cholera, the failures in soldier transfer due to the inefficiency of the railways and lack of proper places in Istanbul, it became inevitable to treat the soldiers, who could not be transferred, at the front. For this purpose, the Medical Office of the Army established "cholera hospitals" in Yassiviran, Hadimköy, Sancaktepe, Sazlibosna and Karaagaç. At the same time, efforts were made to establish logistic provisioning and field hospitals in the areas of the armed forces until the Çatalca Battle.[146]

As of the mid-November, with the order of Director of the Sanitary Office, the transfer of cholera patients to Istanbul was prohibited and it was decided that these soldiers would be transferred out of Ayastefanos. It was decided to pitch tents and to erect as many huts as possible in order to facilitate the settlement of the soldiers and to meet the hospital demand at the Ayamama Farm in Ayastefanos.[147] Since the Rumelia Railway Company (*Rumeli Demiryolu Kumpanyasi*) undertook to grant all of the lumber in its stocks and all other equipment necessary for the construction of the huts in order to complete the project as soon as possible, it was demanded that each and every skilled workman and labourer from the Tophane and Tersane factories who could be employed in this job be transported to the area together with workmen to be sent by the army and Municipality of Istanbul. Frankiya Efendi of the Directorate of the Commission of Technological Works (*Nafia Nezareti Heyet-i Fenniye Müdürü*) was appointed to oversee this operation.[148]

It was deemed appropriate to hire the houses around the construction area and to have the soldiers settled in them. The necessary arrangements were made to house

[146] *TSK*, vol. 2, book 1, p. 292.

[147] M.V., D 171, G 13 (1330, Z.6 –November 16, 1912).

[148] M.V., D 171, G 13 (1330, Z.6 – November 16, 1912); and DH.ID. 164-2/1 - 40-.

them as the huts to be erected for the weak and sick soldiers at the Ayamama Farm, Ayastefanos would take time.[149]

With the ongoing epidemic, since the tents, houses and schools available were insufficient to meet the demand, the construction of new huts was initiated based on the instructions received and wooden huts were erected to the north of the railway station (now the airport).[150] Also, it was decided to establish hospitals in Ayastefanos for the patients who would disembark from the trains in this area.[151] Subsequent to this order, medication areas in Yesilköy were determined. First of all, the Yesilköy Greek School (*Yesilköy Rum Mektebi*) was converted into a hospital and began to operate under the name of the Hospital for Epidemic Diseases. Thereafter, tents were pitched on the broad field between the Gramophone Record Company (*Gramafon Plak Fabrikasi*) and railway station. A few houses, near the field were hired to function as the hospital.[152]

The Red Crescent Society allocated hospitals for the care and treatment of servicemen suffering from cholera who could not be transferred to Istanbul, but stayed on the Çatalca line and made important contributions to the struggle against cholera. For this, initially some hospitals with capacities of 250 beds were constructed in the form of huts at the Çatalca front. Nevertheless, upon the increase seen in the number of patients, three more hospitals were set up in tents in Hadimköy, Ayastefanos and Ispartakule, where the disease was most prevalent. In these one or two-floor tents, brought from Germany and Britain, service was

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[149] M.V., D 171, G 28 (1330.Z.9 - November 19, 1912); and DH.ID. 164-2/1 – 64-.

[150] M.V., D 171, G 28 (1330.Z.9 – November 19, 1912).

[151] M.V., D 170, G 104 (1330.Za.29 – November 9, 1912).

[152] Noyan, p. 6.

provided in the most orderly fashion with the latest technology. The Red Crescent Society provided the personnel of these hospitals from the mobile physician and attendant staff. Hospitals which served especially for the struggle against cholera during its epidemic phase, continued to operate as normal hospitals after the disease disappeared.[153]

Hadimköy Hospital, the first cholera hospital founded by the Red Crescent Society, was established as a field hospital in a tent with a capacity of 150 beds on November 18 (5 Tesrinisani 1328). In parallel with the increase in demand, huts were erected beside the tents and therefore the hospital was turned into a broad hospital with 250 beds. 1,636 patients were admitted to the hospital from its foundation to the end of February and it was recorded that only ninety-three of them died. Thereafter, Ayastefanos Hospital was put into service as a field hospital with 150 beds in tents in perfect condition, which had been brought from Britain, on November 30, 1912 (17 Tesrinisani 1328). Only 343 patients, five of whom were injured, were admitted to the hospital within three months and other than forty dead, all of the patients recovered.[154] Finally, Ispartakulesi Hospital with a capacity of seventy beds, was opened on January 9, 1913 (27 Kanunuevvel 1328). This hospital was comprised of twenty-seven tents, four of which had been imported from Germany. The hospital admitted 305 patients into the tents and, other than seven dead; all of them got well and were discharged.[155] In accordance with the records of the Red Crescent Society, the society made a considerable contribution to the Armed Forces by paying 600 Ottoman Liras in cash to the construction of the huts necessary for the treatment of

[153] Seçil Karal Akgün and Murat Ulugtekin, *Hilal-i Ahmer'den Kizilay'a* (Ankara: Kizilay, 2000), p.122.

[154] *Osmanli Hilal-i Ahmer Cemiyeti 1329-1331 Year Book*, pp.141-145.

[155] ibid., p.141.

the sick and wounded servicemen. In addition, a minibus with a capacity of ten persons for the transportation of the sick, thirty cars manufactured in America with the latest technology for transportation of the sick for the amount of 2,500 liras and two harnesses for each car were purchased.[156]

The Burial of Corpses

Urgent precautions were required at the front for burial of corpses. Since disease could not be possibly prevented, besides the deaths in the units, hundreds of new corpses were sent to Yesilköy and the surrounding areas every day. Due to the fact that the decay of corpses was creating a serious sanitary threat, they must be buried immediately. It was alleged that in a particular period the dead were not buried, but kept in tents for eight to ten days[157] and that the corpses of individuals who passed away during the transfer were thrown from the trains into the fields.[158]

The Medical Office of the Army sent orders to all units for burial of the corpses in order to settle the problem. In this regard, the empty fields on the north of the record factory in Yesilköy, the fields on the right hand side of the road entering Hadimköy and some empty parcels of land in the battlefields were determined as appropriate places for burial.[159] The corpses were buried in big groups in holes dug for ten meters wide and four meters long and lime[160] was poured on them whilst their

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[156] ibid., p.210.

[157] Frik, pp.390-391.

[158] Noyan, p.7.

[159] ibid, p. 8.

[160] Frik, p. 391.

clothes were on. The transfer and burial of those who died from cholera and dysentery among the soldiers coming from the battlefield were conducted by officials appointed by the Medical Office of the Army.[161] The German major Hochwaechter, who was in Hadimköy at that time, described what he saw on November 16 as follows:

> There is a big field at the right hand side of the road entering Hadimköy and a couple of houses on a hill at the upper part of this field. These houses were once used as a hospital but remained empty for some time. Graves were dig on these fields; corpses were buried one on the top of the other. In the end, a car full of corpses came and the bodies were piled into the graves. The arms and legs of the dead were coming out, rigid. These poor guys most probably had died on the way to the hospital or where they had collapsed.
>
> Men with white collars on the other side of the road were digging big holes. I thought that these were for the dead who had been left unburied. But whilst coming up, I saw a long line of cars bringing dead to be buried without knowing who and without shedding a tear into these holes.[162]

Some deficiencies and mistakes were also experienced with regards to the burial of corpses. In order to prevent the dissemination of the disease, cholera lime was to be poured on the dead burial. In some cases, soldiers who passed out from hunger were assumed to be cholera patients and sometimes lime was poured on soldiers who were still alive without proper examination by mistake and were left to die.

The Maintenance and Cleaning of Water Sources

One of the effective measures taken in the struggle against epidemic diseases at the front involved meeting the clean water demands of the units. Serious measures

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[161] BOA., BEO 308497.

[162] Hochwaechter, *Türklerle Cephede*, Askeri Tarih Bülteni Eki, no 8, trans. Fahri Çeliker (Ankara: Genelkurmay Basimevi, 1979), p. 61.

were needed on this issue in order to prevent epidemic diseases especially cholera and dysentery, since these diseases spread via water. Upon the appearance and fast spread of cholera, efforts were made to use only clean rivers, sources and fountains existent in the area. All other water, especially sources and fountains were to be taken under custody. Under the scope of this measure, soldiers were to be assigned to guard these posts 24 hours a day.[163]

If the soldiers gathered around Terkos Lake infected the waters of the lake, the inhabitants of Istanbul would be face to face with the cholera threat, it was deemed obligatory that the area would be taken under a military cordon and be examined by military physicians.[164] Also, upon the fears raised by people residing in the concerned area, that the Bulgarian villagers in the area around the lake Terkos and Tayakadin might corrupt the waterways, Terkos road and other water dams were to be protected. At first it was thought that this task should be entrusted with the Selimiye Division, but later the decisions were made against it since there might be individuals who had caught cholera among the soldiers of the division. Therefore, the need arose to send new platoons under the orders of the commanders who had worked on Istanbul in this matter. At last, the local precautions were taken and the task was appointed to the Denizli Division, which was deployed around Terkos.[165]

Notwithstanding, it was necessary to provide water from outside since the waters that met the sanitary standards was not enough to provide the needs of the soldiers completely. However, the scarcity of water carrying cars made the situation

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[163] *TSK,* vol. 2, book 1, p.281.

[164] BOA., DH. ID 164-2/1 (1331.B.16- June 21, 1913).

[165] Mahmut Muhtar Pasha, p. 134.

worse. For this purpose, as of November 24, 1912, water carrying cars started to be sent from Istanbul to Hadimköy. The clean drinking water needs of the units, which were of vital importance, were met in this way.[166]

Civil Precautions

The epidemic diseases that appeared with the Balkan Wars made the issue of public health open to discussion since the need for productive human capacity was greater than any other period. This capacity was very important not just for human force for the war but for manpower, which would ensure the continuation of the agricultural production and the proper operation of life and the social order. The first arrangements for public health by the Sublime Porte started in 1838. As of this date, with the health institutions and organisations and the regulations adopted, the state started to acquire the status of the protector of the public, not just in the legal and political arena, but also in the area of health.[167] Yet when Balkan Wars started, one could not say that the services and institutionalism in the field of public health were satisfactory. Epidemic diseases started to be seen and the difficulties encountered in the solving of other health problems were evident indicators of this fact.

After the spread of cholera throughout the army, it was transported to the city via soldiers and refugees; thus, the overall health of the capital city was seriously endangered. Therefore, the government had to implement some protective health

[166] *TSK*, vol. 2, book 1, p.281.

[167] For detailed information on public health, please see Nuran Yildirim, "Tanzimat'tan Cumhuriyet'e Koruyucu Saglik Uygulamalari," in *Tanzimat'tan Cumhuriyet'e Türkiye Ansiklopedisi*, vol. 5 (Istanbul: Iletisim Yayinlari, 1985), pp.1320-1327.

precautions, i.e., mostly quarantine.[168] Quarantine centers (*tahaffuzhane*) in Tuzla, Kavak, Selviburnu (Beykoz), Sinop, Manastiragzi, Klazumen[169] and Beirut were put into service under the administration of the High Quarantine Assembly (*Meclis-i Umur-i Sihhiye*). It was obligatory that vessels carrying soldiers and refugees during the war be subject to the health measures taken in accordance with the quarantine regulation in the relevant quarantine units. Furthermore, quarantine units formed in different parts of Istanbul made it possible for the individuals arriving via land route or the railways to undergo quarantine procedures.[170]

An "extraordinary commission" was established with the participation of the Ministry of Health (*Sihhiye Nezareti*), the General Council of Civil Medicine (*Meclis-i Umur-i Tibbiye-i Mülkiye*), military physicians and two officers from the Municipality of Istanbul in order to enforce the precautions taken against cholera on the date of November 6, 1912 (24 Tesrinievvel 1328). It was deemed appropriate that the presidency of this commission should be made by Mayor Cemil Pasha since cholera had begun to spread in the city.[171] Furthermore, it was planned that an "inspection panel" should be established upon the participation of military and civil doctors in order to determine persons who were under suspicion of having contracted

[168] Quarantine: The period of seclusion and other precautions taken in case of passengers and personal belongings travelling in a transportation vehicle where epidemic diseases like smallpox, cholera, plague, yellow fever, typhoid fever, racihumma and pyrexia (malaria) are seen or in case any of the aforementioned diseases is an epidemic in their country of arrival, before they are in contact with the country of destination, are included under the scope of quarantine. Nuran Yildirim, "Karantina," in *Dünden Bugüne Istanbul Ansiklopedisi*, vol. 4 (Istanbul: Kültür Bakanligi - Tarih Vakfi Yayinlari, 1994), pp.459-460.

[169] Klazumen Tahaffuzhanesi (Quarantine Unit) was the name of a quarantine unit established around Izmir.

[170] See *Kolera Karantinasi Hakkinda Nizamname* (Dersaadet: Matbaa-yi Osmaniye, 1311).

[171] BOA., BEO, no. 308180 24 Tesrinievvel 1328 (November 6, 1912).

the disease and to transfer them to the hospitals and inspection centres to prevent the further spread of the disease in Istanbul.[172]

The most significant thing done thereafter was the adoption of some emergency measures. *The Meclis-i Tibbiye-i Mülkiye and the Sihhiye-i Umumiye*[173] worked on this issue and prepared the emergency measures to be applied on November 9, 1912 (27 Tesrinievvel 1328). However, the lack of physicians, due to the fact that almost all of them were at the front, complicated the implementation of some of the measures. Some specialists were called back in order to solve this problem. For this purpose, it was decided that Aristidi,[174] professor of hygiene, the

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[172] BOA., DH. ID 164-2/1 – 12-(1331.B.16- June 21, 1913).

[173] *Meclis-i Sihhiye-i Umumiye* was founded on 1881 in order to convene once a week to engage in some activities like to inform and warn the government on the precautions to be taken by examining and researching the overall health of the country, to adopt measures against the epidemic diseases that might arise anywhere in the country and to notify the same to the government, to inspect all kinds of foodstuff and beverages coming to Sublime Porte with custom clearance and being sold in cities and towns and to settle the disputes between the pharmacists and the public, etc. The president of the association, which had thirteen members and was affiliated to Ministery of the Interior, was *Dahiliye Naziri* (Minister of the Interior). Other than this, a hygiene commission was founded after the cholera epidemic of 1891, under the presidency of the Mayor of Istanbul in order to deal with the sanitary and municipal businesses of only Istanbul in order to convene every day other than Fridays and Sundays. This commission had branches and organisations in ten municipal offices, which Istanbul was divided into. Osman Ergin, *Istanbul Tip Mektepleri, Enstitüleri ve Cemiyetleri* (Istanbul: Osmanbey Matbaasi, 1940), p. 94.

[174] Aristidi Pasha (1863-1938) One of the famous bacteriologists of the Sublime Porte. Graduating from the Military School of Medicine in 1885, he was accepted as an assistant to Office of Bacteriology (*Bakteriyolojihane*) in 1895. He became an assistant and a professor of bacteriology in Military School of Medicine in 1900 and hygiene professor of School of Medicine in 1909. He worked as the president of the struggle panel in Aydin cholera spread and Midilli plague spread and he acted as the Director of Health (*Sihhiye Müfettisi*) of Vardar Army during the Balkan War of 1912. Ekrem Kadri Unat, *Osmanli Imparatorlugu'nda Bakteriyoloji ve Viroloji* (Istanbul: Istanbul Üniv. Yayinlari, 1970), p. 69.

bacteriologist Kemal Muhtar[175] and Ziya Bey, members of the Assembly, who had previously been enlisted, should immediately come back to Istanbul.[176]

As per the precautions, an "inspection panel"(*teftis heyeti*), situated in Sirkeci, undertook the duty of keeping those among the wounded soldiers and refugees, who arrived at Istanbul showing symptoms of the disease under observation or transferring them to hospitals. For this purpose, it was recommended that large hospitals, reserved only for cholera patients be established in Istanbul. The Assembly demanded an allocation of three million piasters from the Ministry of Finance (*Maliye Nezareti*) to meet the costs of isolation precautions. As the reason for this allocation, it was indicated that only one million piasters were left from the previously allocated three million piasters for this purpose, that in some cities cholera still continued, constituting a danger for Istanbul, and that the concerned amount was under no circumstance enough for the cities or Istanbul.[177]

As seen, the arrangements made in the struggle against cholera depended on a common action operated by both the military and civil authorities. The authority regarding all developments outside Istanbul, i.e. the front, rested with the army, whereas the overall health of the city was among the responsibilities of the Municipality of Istanbul. Nevertheless, since the migration and epidemic diseases created by the war necessitated the mobilisation of both soldiers and the civil

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[175] Kemal Muhtar Bey (1874-1958). Famous bacteriologist. Graduating from the Military School of Medicine in 1900 and accepted as an assistant of bacteriology in Gülhane and of Treatment House for Rabies (*Daülkelp Tedavihanesi*). Dr. Kemal Muhtar Bey, who became the director of the Vaccine House for Smallpox (*Telkihhane-i Osmani*) in 1913, started to work in the Medical Office of the Ministry of War (*Harbiye Nezareti Sihhiye Dairesi*) in 1914 and then worked as the Director of Istanbul *Vilayeti Sihhiye ve Muavenet-i Içtimaiye* (Directorate of Health and Medical Assistance for the City of Istanbul). Unat, pp. 26-27.

[176] BOA., DH. ID 164-2/1 -13- (1331.B.16- June 21, 1913).

[177] BOA., DH. ID 164-2/1 – 13- (1331.B.16- June 21, 1913)

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population, the condition of the soldiers within the borders of the city and the problems of the refugees outside the city made co-operation in the distribution of duties and powers inevitable.

The arrangements enacted as of the appearance of the disease and the health precautions taken proved unable to stop the spread of the disease and as of November 12, it was understood that the disease had spread among the inhabitants of the city, too. It was indicated in a newspaper published on this particular date that out of eighteen cholera cases, three involved inhabitants of the city.[178] Thereupon, more effective precautions began to be applied. In the new precautions issued by the *Meclis-i Umur-i Tibbiye-i Mülkiye and the Sihhiye-i Umumiye* to the Municipality of Istanbul and the Ministry of War on November 14 (1 Tesrinisani 1328), the implementation of the following precautions was requested:

1. Since the disease entered the city via soldiers and refugees, these should first of all undergo a strict cordon and disinfection in a neighbourhood located out of Istanbul before being allowed to enter the city,
2. Soldiers suffering from cholera, who came so far, were admitted into many hospitals and health institutions. These places are to be kept under close surveillance by soldiers in order to prevent contact with the outside,
3. Similarly, all contact of the immigrants who are currently in Istanbul with the inhabitants of the city should be ceased.
4. Due to the fact that no serious spread of cholera has been seen among the public so far, as soon as this disease is noticed, those suffering from the same should be kept under cordon at their locations in order to control their contact with others. Since such an application will be difficult for various reasons, appropriate locations and houses should be hired in each and every

neighbourhood and isolution units in sufficient number are to be established. Furthermore, the public should be warned about cholera outbreaks by means of announcement. In the concerned announcement, the obligation to report the houses where cholera has been seen to the local authorities is to be emphasised and it is to be stressed that otherwise, severe punishments will be inflicted against those hiding patients.

5. Persons who are in contact with the patients under cordon and in isolation units or cholera hospitals are to undergo the necessary medical examinations and be set free afterwards,
6. In neighbourhoods where the cholera patients are located, disinfection is to be undertaken strictly and all personal belongings are to be sterilised.
7. It should be prohibited to use waters in which cholera microbe has been detected as a result of regular controls.
8. Since it is easier for the cholera to spread among those living in poverty and unmarried persons who live in inns and coffee houses, these places and the work places of street porters, boatmen, etc are to be kept under medical examination and all kinds of crowding in them is to be prevented.
9. The sale of all rotten fruit and vegetables, which cause loose bowels and/or upset stomach, is to be prohibited.
10. Since the public will benefit from information about the precautions taken against cholera, a declaration incorporating the same should be announced.
11. The municipal police should be charged by the Directorate of Police to assist all health officers.

[178] *Ikdam*, 5650, 30 Tesrinievvel 1328 (November 12, 1912), p.5.

12. A yellow label should be affixed to the houses where cholera has been detected in order to ensure that the public is aware of the fact that cholera has been seen there and that they should keep their distance.[179]

A cholera commission was founded by the Municipality of Istanbul with the participation by well-known physicians in order to implement these new health precautions. As it was important to keep the overall health condition of the public under continuous control, mobile physicians and sanitation inspectors, who would be responsible for controlling only, were appointed. "Sanitary panels" were established by the Municipality to undertake inspection and control.[180] The importance of health organisations at the local level was acknowledged in a more explicit manner.

The most remarkable precautions among the decisions adopted on November 14 were those involving disinfection applications. It was highly important that the cleaning measures be carried out in a serious manner in order to hinder the spread of cholera. The establishment of a disinfection station (*tebhirhane)*[181] or mobile cleaning panels were needed in order to implement such procedures. The disinfection station operated under the management of the Institution of Good Hygiene Directorate (*Müessesat-i Hayriye-i Sihhiye Müdüriyeti*) during the Balkan Wars are

[179] BOA., DH. ID 164-2/1 –47,48,49- (1331.B.16- June 21, 1913).

[180] BOA., DH. ID 164-2/1 –128- (1331.B.16- June 21, 1913).

[181] *Tebhirhane* (disinfecting station) is the health institution where clothes and personal belongings of persons who caught epidemic diseases like cholera, smallpox, chicken pox, plague, scarlet fever, measles, typhoid fever, typhus, dysentery, diphtheria, tuberculosis, puerperal fever and whooping cough were fumigated with high pressure steam and the place where those who caught these diseases were disinfected with some chemicals. Nuran Yildirim, "Tebhirhaneler" in *Dünden Bugüne Istanbul Ansiklopedisi*, vol. 7 (Istanbul: Kültür Bakanligi - Tarih Vakfi yayinlari,1994), pp.231-232.

evaluated as one of the most essential methods in the struggle against epidemic diseases among the protective health practices.[182]

The procedure of keeping sick soldiers and refugees under "cordon" incorporated among the precautions was applied for a while but later on abandoned. This situation was explained in the official statement sent by the Commission as follows: In the houses where the sick dwelled, in case the patients went out of these locations, those who got in contact with them were put in isolation and set free after a particular period of inspection once it was understood that they were not infected. This medical precaution, reduced into practice in various locations, could only be enforced when the disease started to spread in the city, nevertheless news was obtained that it was nearly impossible to continue with this procedure due to extraordinary accumulation. The application of cordon was carried into execution as follows:

1. Neighbourhoods in which cholera has been detected are put under isolation together with all persons who came into contact with the patients.
2. In case of the transfer to hospital or death of a cholera patient, subsequent to the removal of the corpse from the house, the house is to be disinfected and then kept under surveillance and all persons present there are to be allowed to go free only after medical examination of five days.
3. In cases where the family of the cholera patient insists on or wishes that the patient be isolated on location, upon the examination of the official

[182] For detailed information on disinfection arrangements, see Nuran Yildirim, "Disinfection Stations in Ottoman Empire," *Science in Islamic Civilization*, ed. Ekmeleddin Ihsanaoglu and Feza Günergun (Istanbul: IRCICA, 2000), pp. 267-277.

physicians, the patient is to be kept under surveillance. In event of the recovery or death of the patient, article 2 above shall be applied.

4. People who remain in contact with the patient under isolation as indicated in article 3 herein above and all food supplies and other disbursements shall be covered by the owner of the concerned house. If the concerned person is poor, food supplies and medication disbursements of those who are being treated based on both the conditions of the location and wishes and desires of his/her family and those who are secluded shall be covered by the Municipality in Istanbul.
5. The duty of cordon shall under all circumstances be administered by the police and gendarmerie and sergeants and guardians of the municipality shall serve in issues of sanitation and food supply.[183]

When the practice is reviewed, it is understood that isolation precautions were not among those frequently demanded by the public. One can think that the reasons for this are, besides isolation from society and psychological loneliness, the uneasiness created by the intervention of the state into private life in such an intensive way.

In a report drawn by the *Meclis-i Umur-i Tibbiye-i Mülkiye* with regards to the practice of the concerned health precautions on December 16, 1912 (3 Kanunuevvel 1328) it was indicated that only forty percent of the patients could possibly be transferred to the hospitals whereas the remaining sixty percent had to be left within their own residences and it was further notified that in the current year (1912) the number of patients who could be transferred to the hospitals reached

[183] BOA., DH. ID 164-2/1 -100- (1331.B.16- June 21, 1913).

eighty percent nevertheless twenty percent of the patients were left to be treated in their own houses.

The report continued as follows: The duty to transfer the patients to the hospitals as soon as it was understood that they were infected rested with the Municipality. After the patients were sent to the hospital, their residences were to be cleaned and all personal belongings that suspected of being infected were to be sterilised. Four sterilisation centres attached to the Municipality in Istanbul were in continuous operation in order to put this precaution into practice. Three mobile sterilisation machines (mobile fumigation machines) that were returned by the Ministry of Health to Hekimoglu Ali Pasha were sent to Tahtakale, Kumkapi and the Fourth Municipal Bureau, where all of the infected personal belongings of patients were disinfected. After the transfer of the patients to the hospitals and application of the disinfecting procedure as narrated; cordons, implementation of which were difficult, were removed and the household underwent a medical examination of five days.[184]

Meanwhile, it is worthwhile to note that a tension arose between Municipality of Istanbul and Ministry of War and some ministries and that severe accusations were made towards one another whilst the application of the health precautions. One of them relates to the cleaning of the servicemen who were suffering from cholera. Despite the fact that sick and weak soldiers, especially those suffering from cholera should under no circumstances be sent to the city was numerously notified to Ministry of the Interior and Ministry of War by Municipality of Istanbul, as reported by *Meclis-i Umur-i Tibbiye-i Mülkiye*, more than 20.000 soldiers of this kind entered the city illegally until December 16, 1912 (3 Kanunuevvel 1328) and more were

[184] BOA., DH. ID 164-2/1 -128- (1331.B.16- June 21, 1913).

coming. While some of them were evacuated, some who underwent disinfection were accommodating in mosques. Based on an allegation, Municipality of Istanbul paid many efforts for the sanitation of these soldiers both during and after their transfer and 20.000 weak soldiers were only attended by the officers of Municipality until the army appointed health officers for them.[185]

Since cholera is a disease that can also spread by means of contact, decreasing the crowd in congested areas is one of the main rules in the struggle against this disease. Therefore, as suggested in the health precautions taken, it was a necessity to prevent accumulation in accommodation places for the singles, inns and coffee houses where the poor took refuge. Nevertheless, since these places, which had already been overcrowded, also served as shelters for the immigrants and the soldiers who came to Istanbul, all efforts paid in this issue were inefficient as there was no other place for accommodation left in the city.

Another precaution taken to prevent crowd was, upon the permission of Seyhülislam (the chief religious official in Ottoman Empire), to close all mosques, especially Hagia Sophia (*Ayasofya*), Blue Mosque (*Sultanahmet*) and Sehzadebasi to prayers and to open them for temporary settlement.[186] After the decision to open the mosques for the settlement of the soldiers, all soldiers staying in the city were gathered together and sent to Hagia Sophia Mosque. Notwithstanding, since settling all sick soldiers in a single place would result in the aggravation of cholera, while those who were severely ill stayed in Hagia Sophia, those who were not suffering from the epidemic were sent to other mosques. In cases where the capacity of a mosque was exceeded, some of the cholera patients or those arousing suspicion of

[185] BOA., DH. ID 164-2/1 -128- (1331.B.16- June 21, 1913).

[186] Türkgeldi, p.70.

disease were sent to Maltepe Military Hospital and to Demirkapi Hospital, which had originally been reserved for sick refugees. After these persons were kept under quarantine for a couple of days, those who were thought to be improving were sent to the quarantine unit of Kavak in order to undergo a medical disinfection.[187] With this organisation, 1,250 soldiers were treated with the support of the Red Crescent Society in Hagia Sophia, Sultanahmet, Nuruosmaniye and Mahmutpasa mosques until their seclusion periods expired.[188] Soldiers whose cleaning and disinfection were completed in Kavak were finally sent to Selimiye barracks, where they were transferred to their original barracks or hometowns.[189]

Civilians who caught cholera were also kept under quarantine and treated in mosques. Their food needs were met by the Red Crescent Society and the Municipality of Istanbul. In accordance with the decision adopted by the government on November 16, 1912, all liability with regards to the settlement, treatment and food supply of the servicemen settled in mosques belonged to the Ministry of War. Accordingly, the Ministry of War was to appoint an "administration panel" for the food supply, a "protection panel" made up of two officers and ten soldiers for protection, and a "sanitary panel" made up of two physicians, a pharmacist and two nurse attendants for the health of the soldiers to each and every mosque. Furthermore, it was deemed appropriate that small pharmacies should be opened in each mosque in order to meet the medicine needs of the soldiers. It was further ruled that those who recovered should be evacuated by ship and those who passed away should be buried without any delay in accordance with the codes of sanitation. The

[187] M.V., D 171, G 13 (1330.Z.6 – November 16, 1912).

[188] Akgün and Ulugtekin, p.110.

[189] BOA., DH. ID 164-2/1, -90-(1331. B. 16- June 21, 1913).

operation of the quarantine would be implemented under the surveillance of the soldiers and gendarmerie in order to prevent the further spread of the disease. In the official report publicly announced in this regard, it was stipulated that;
"The soldiers who have left their barracks and straggled into Istanbul shall be forthwith gathered together by means of military forces and transferred to the determined mosques... The mosques shall be strictly protected by soldiers and gendarmerie of sufficient number and not even a single soldier shall be allowed to leave them."[190]

Some arrangements were introduced in schools within the scope of the struggle against cholera. The Ministry of Education (*Maarif Nezareti*), the Directors of Health (*Sihhiye Müfettisleri*) and the Commission of Hygiene of Schools (*Hifzissihha-i Mekatip Komisyonu*) were entrusted with the responsibility of the application of the health precautions in schools. The Regulation for Preventing the Dissemination and Spread of Epidemic Diseases in Schools (*Bilumum Mekâtipte Emrâz-i Sâriyenin Men-i Tevessü ve Intisâri Hakkinda Nizâmnâme*),[191] publicly announced on February 1912, explained in detail which diseases were included under the title of the epidemic diseases, what kind of arrangements should be introduced in classes, and the precautions to be taken for the medical examination and with regards to the disease in particular. Also, it was resolved by the cholera commission that all schools located in neighbourhoods where cholera was seen should be closed indefinitely.[192]

Upon the increase in the number of immigrants and the aggravation of

[190] M.V., D 171, G 13 (1330.Z.6 – November 16, 1912).

[191] Ergin, vol. 6, p. 3581-3584.

[192] BOA., DH. ID 164-2/1 -128- (1331.B.16- June 21, 1913).

cholera after the Çatalca Battle started, the High Quarantine Assembly (*Meclis-i Umur-i Sihhiye*)[193] held a meeting in order to discuss the sanitary condition of Istanbul. During the meeting, Dr. Keller, the delegate of Austria-Hungary, on behalf of the foreign members, read out an emergency program and submitted the same to the assembly.[194]

In this program, some precautions that should be taken for the sanitation of the city and its inhabitants, the isolation and treatment of cholera patients arriving in Istanbul, the burial of those who died because of cholera and the cleanliness of the sources of water were included. The Assembly accepted this program with some amendments and decided that a Special Committee should be established in order to enforce these duties and that an allocation of 10,000 liras should be reserved for the expenditure to be made. The Special Committee was made up of four Ottoman and four foreign members, seven of whom were Akil Muhtar,[195] Hüseyin Said, Rifat Bey,

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[193] *Meclis-i Umur-i Sihhiye* (High Quarantine Assembly) was incorporated in 1838 (1254) in order to engage in duties like inspecting vehicles and vessels arriving to the Sublime Porte by means of land routes or sea lanes and their passengers and personal belongings in order to see whether these were infected with any epidemic diseases before allowing them to enter the country, granting the certificate indicating that the bearer of the same was not infected with any of the epidemic diseases to those who would go abroad from Turkey and therefore protecting both the overall health of the people and the commerce. The assembly was made up of 8 permanent members. In addition, 13 physicians also attended the assembly in order to act on behalf of the ambassadors in Istanbul (Germany, Britain, Austria, Italy, Spain, America, Iran, Sweden, Norway, Belgium, Russia, France, Greece). The president of the assembly was Minister of Foreing Affairs. After the Lausanne Treaty, the members of the Assembly were totally Turkish citizens and the Assembly was renamed as the Sanitary Office of Borders and Coasts (*Hudud ve Sahiller Sihhiye Müdürlügü*), which was affiliated to the Ministry of Health and Medical Assistance (*Sihhat ve Içtimai Muavenet Vekaleti*). Ergin, p.86-94.

[194] MU. SIH., 13, no. 47, D. no. 2563.

[195] Akil Muhtar (Özden) (1877-1949). After graduating from the Military High School of Medicine and the Demirkapi Military School of Medicine, he went to Switzerland in 1896 and enrolled in the Faculty of Medicine of Geneva and graduated from there in 1902. Afterwards, he continued his education at the Institute of Pasteur in Paris and attended the lectures of important scientists in the field of internal diseases. Back in Turkey in 1908, he gave lectures in the area of hygiene at the Faculty of Medicine and then he became a professor in his major area of specialisation, Pharmacodynamics and Treatment Clinic. He also worked in Haydarpasa and Haseki Hospitals. He was appointed as the dean of the School of Medicine in 1917 and in the meantime he worked in the Red Crescent Society in an active way. After the national independence, he assumed the title of professor in ordinary during the university reform of 1933. Akil Muhtar Bey retired in 1943 and began to deal with politics and became a member of the Turkish National Assembly in 1946. Muhtar

Dr. Keller, Dr. Delamare, Dr. Valter and Dr. Yanko.[196] The commission distributed the duties among its members and conducted its studies on especially three issues under the scope of the struggle against cholera. One of them was the examination and burial of those who died, the second was the execution of works in cleaning and sanitation, and the third was providing medical services in various places of Istanbul with twenty physicians appointed by the Assembly.[197]

All of the arrangements made and precautions taken began to yield results at the end of November and Istanbul got rid of cholera entirely at the end of December. Daily cholera cases were decreased to 20's on December 25, 1912. The total cholera cases seen in Istanbul from the date the disease first emerged to December 31, 1912 were as below:[198]

Total cases	1147
Those underwent treatment and recovered	1195
Total	2342

Cholera reemerged among soldiers in Kartal and the surrounding areas, where the quarters of Third Corps were located, on February 5, 1913, posing danger anew for Istanbul. The Ministries and the Municipality of Istanbul were on the alert and took emergency precautions in order to prevent the dissemination of the disease in the city. In order to destroy the disease at its starting point, Rasit Tahsin,[199] member

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Tevfikoglu, *Akil Muhtar Özden* (Ankara: Türk Kültürünü Arastirma Enstitüsü Yayinlari, serial 1, no. A.29, 1996); also see Erden, pp. 172-173.

[196] MU. SIH., 13, no. 47, D.no. 2563.

[197] MU. SIH., 13 no 49, D.no. 2563, p.9.

[198] Ikdam, 5699, 18 Kanunuevvel 1328 (December 31, 1912) p.4.

[199] Rasit Tahsin (1870-1936) Famous Psychologist. Graduating from the Military School of Medicine in 1891, he went to Berlin in order to work with Emil Kraepelin to be a specialist of mental

of the Civil Medical Association (*Cemiyet-i Tibbiye-i Mülkiye*) and General Director of Good Hygiene, (*Hifsizsihha Genel Müfettisi*) Ismail Hakki Bey were sent to Kartal the following day, February 6 (24 Kanunisani 1328).[200] These persons conducted a medical examination in Kartal, Yakacik and Soganlik and prepared a detailed report on the reasons and means of spreading of the disease and submitted the same to the Governorship of Istanbul. As a result of the examination made, it was understood that had cholera emerged in the battalions of Elazig, Malatya, Diyarbakir in Yakacik affiliated with the Third Corps, Dersim in Soganlik and Palu battalion in Maltepe. The scarcity of health personnel, the negligence of the authorities and unavailability of any health precautions against cholera allowed the disease to turn into an epidemic in a short time. Other reasons for the spread are as follows:

The servicemen relieved themselves in the streets and therefore polluted everywhere; furthermore the fountains in the streets were used both by the soldiers and the inhabitants of the area. In addition, soldiers who died from cholera were buried at the entrance of or within the village, which constituted a serious threat. The soldiers could easily enter public places like the coffee houses and mosques of the village while the municipal police was indifferent to this situation. As a result, the district of Yakacik was infected with the disease almost entirely. It was further indicated in the report that one or two cholera cases had been encountered among the public in Kartal. It was demanded that emergency precautions be taken and that the relevant arrangements be made in order to prevent spread of the disease. The authorities were warned that otherwise the overall health of Istanbul would be

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and neurological diseases. Back in Turkey, he worked as a professor in the Gülhane, Military School of Medicine and Istanbul Faculty of Medicine and retired during the university reform of 1933. Faruk Bayülkem, *Türkiye'de Psikiyatri-Nöroloji ve Nörosirurjinin Tarihi Gelisimi* (Istanbul: n.p., 2000), p. 19.

[200] Prime Ministry Ottoman Archive in Istanbul, DH.ID. 164-1/2 – 51-

endangered. The solution proposed was to transfer the soldiers to the quarantine unit in Tuzla or Kavak and arrange for their treatment therein.[201]

A cholera commission, under the presidency of the highest administrative authority of the district, the mayor and military and civil physicians, was established in Kartal.[202] The commission determined the precautions for the struggle and made considerable effort for their realisation. In this regard, first of all, the isolation and treatment of the soldiers or inhabitants of the area who carried the disease were attempted. Since the transfer of the cholera patients to distant hospitals was both difficult and might cause the further spread of the disease, the isolation of the patients at the location was deemed more appropriate. Therefore, it was decided that the battalions of Yakacik and Soganlik should be transferred to the hospitals and isolation units therein. Furthermore, for this purpose, kiosks and houses in Yakacik and the surrounding neighbourhoods were hired in order to be used as isolation units and some battalions were sent there. The aforementioned places were kept under quarantine and in this way contact with the local inhabitants was prevented.[203] It was also decided that the public should be treated separately from the soldiers. It was further ruled that those arousing the suspicion of disease or who had already caught the disease in Kartal, Pendik, Maltepe or Tuzla should be sent to isolation units determined in their own areas and then be transferred to hospitals where civil and military physicians were working together. In accordance with the decision of the commission, the physicians were to send samples of the faeces of the patients to the bacteriologist of the corps for analysis. It was deemed obligatory that the names of

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[201] BOA., DH.ID. 164-1/2 -86-.

[202] BOA., DH.ID. 164-1/2 -67-.

[203] BOA., DH.ID. 164-1/2 –5-.

these who died from cholera should be reported to the government and the municipality. [204]

Meanwhile, all of the coffee houses, hotels and offices in Kartal were disinfected in the efforts to end the spread of the disease[205] Furthermore, trains and ships were strictly forbidden to pass these places after Bostanci until the disease was destroyed completely. [206]

Since the precautions were applied with due diligence, the disease was completely eradicated by March 5, 1329 (March 18, 1913). In a letter sent by the office of the highest administrative authority of the district, it was indicated that no patients remained in the isolation units, ten soldiers, who were in convalescence and whose analyses did not show the existence of cholera microbe, were sent to Haydarpasa Hospital to be treated for a while and that the disease disappeared completely in forty days.[207]

After the cholera outbreak in Kartal, new cholera cases emerged in Hasköy in April 1913 and reached epidemic levels in a short time. With immediately taken precautions, the intensity of the disease decreased within the first days and many families were sent to Karaagaç cordon and underwent disinfection. [208] Nevertheless, after a while new cholera cases were determined in the Firuzaga, Galata, Beyoglu and Kasimpasa districts of Istanbul. The detection of four cholera cases in various neighbourhoods of Istanbul within forty-eight hours filled the Municipality of Istanbul with great anxiety. Strict emergency precautions were taken in order to

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[204] BOA., DH.ID. 164-1/2 –86- (1331.R.21- March 30, 1913).

[205] BOA., DH.ID. 164-1/2 –4- (1331.R.21- March 30, 1913).

[206] BOA., DH.ID. 164-1/2 –22- (1331.R.21- March 30, 1913).

[207] BOA., DH.ID. 164-1/2 –121- (1331.R.21- March 30,1913).

[208] BOA., DH. ID., 166 / 2 –1- (1331.R.27- April 5, 1913).

prevent the disease from spreading throughout the city. As a precautionary measure, it was decided that some units of the Orphans Hospital (*Gureba Hastanesi*) in Yenibahçe should be organised as a cholera hospital. Therefore, a letter was sent to Ministry of Pious Foundations (*Evkaf-i Hümayün Nezareti*) for vacating the hospital. Furthermore, an allocation of 4,000 liras was provided by the Ministry of Finance for disbursements related to cholera.[209]

With strict precautions taken in the first stages of the disease, an epidemic was avoided. Nevertheless, these last incidents compelled Municipality to search for permanent measures against cholera. Summer was drawing near and the soldiers would be demobilised since the war had ended. The capital city and other cities of Anatolia could encounter with new threats of disease. Thus, the Municipality prepared a project for the establishment of a new health organisation and submitted it to Ministry of the Interior. In the project, the organisations in Istanbul and Anatolia were handled separately. In the section concerning Istanbul, it was indicated that many lives had been lost during the struggle with cholera, which had been seen in the capital city at intervals for the last two years since there was no proper organisation. Despite the fact that the disease, which had recently showed its face, had been almost defeated, it still caused casualties, notwithstanding the best efforts paid to this issue. Istanbul and Anatolia were always open to the danger of epidemic diseases due to the fact that there was no permanent health organisation and that the health means available did not meet the needs. In this letter, written by the Mayor Cemil (Topuzlu) Bey, the arrangements made in Europe were given as examples and it was noted that health was one of the most important duties of the government and that municipalities had to play major roles in struggles against epidemic diseases. For

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[209] BOA., DH. ID., 166 / 2 –24-(1331.R.27- April 5, 1913).

example, the Italian government had expended 1,200 francs from the Treasury, in addition to disbursements made by the municipalities in order to fight cholera, which had appeared in 1910 and killed 915 persons and the disease could only be destroyed in this way. Although the Ottoman government could allocate a certain sum from its treasury for the struggle against cholera, this amount could be used in a limited way since there was no proper organisation. It was declared that the duty to be prepared against this disease, which continuously threatened the country, rested with the government.[210]

In the aforementioned letter, written by Mayor Cemil Bey, the sanitary means available for the struggle against cholera were named as follows; five hospital units for sixty persons, three immobile sterilisation units, one hundred pulverizers, six cars for personal belongings, eighty stretchers, an ambulance, six funeral cars, and one hundred hospitals. Furthermore, wrecked buildings in Sisli, Çiftehavzular and Üsküdar Nuhkuyusu, which were used as isolation units, and two hospitals, one of which was in Büyükdere Haciosman Bayiri with the capacity of thirty beds and the other in Serviburnu with the capacity of fifty beds, only for Bogaziçi.[211] It is evident that these instruments were under no circumstances enough for Istanbul, the population of which exceeded one million in those days. It was necessary that a proper and permanent health organisation be established in order to come up against cholera again.

The needs of the organisation, which was requested to be established under the orders of *Meclis-i Umur-i Tibbiye-i Mülkiye* and *Sihhiye-i Umumiye* were listed as follows: three hospitals, two with fifty and one with one hundred beds; one of

[210] BOA., DH. ID., 166 / 2 –35- (1331.R.27- April 5, 1913).

[211] BOA., DH. ID., 166 / 2 –11- (1331.R.27- April 5, 1913).

which would be established in an appropriate place in Istanbul, and the others to be founded in Üsküdar and Beyoglu for cholera and other epidemic diseases. Isolation units of 250-300 persons would be near these hospitals. Since the three disinfection stations that were already available in Istanbul were far from satisfying the need, a sterilisation machine was to be placed in each newly built hospital. These sterilisation machines would serve both the hospitals and the isolation units and would be used for sterilisation purposes at their location and for the near by neighbourhoods. Also, three more mobile sterilisation machines and sanitation tools and equipment would be purchased since the sterilisation tools and equipment available were not satisfying the demand. In order to employ sterilisation officers, guards and other health officers in a more efficient manner in the health organisation, these would undergo a simple training, which could be easily comprehendible, and a permanent "sanitary panel" would be formed. An allocation of ten million piasters was needed for all of these arrangements.[212]

The organisation in Anatolia was made up of three sections in the project. In the initial section, the reasons for establishing a health organisation in Anatolia were emphasised. Despite the established opinion that the disease had come to Istanbul from Anatolia, in fact, the disease had first come to Istanbul via Black Sea and then spread to Anatolia. Nevertheless, whatever the origin of the disease, the important thing was how the precautions taken were being implemented in each and every part of the country due to the fact that the disease continued to exist both in Istanbul and in different parts of Anatolia and costed many lives and a considerable amount of money. 15-20,000 soldiers of the Ottoman Army were lost due to cholera during the

[212] BOA., DH. ID., 166 / 2 –35- (1331.R.27- April 5, 1913).

Balkan Wars. Therefore, a proper health organisation should be established all around the country before summer came and before the soldiers were demobilised.[213]

In the second section of the project, how a regular health organisation could be established in Istanbul and which precautions would be taken in the struggle against the disease were underlined. For this purpose, "mobile sterilisation panels" bearing all kinds of equipment should be sent to the areas where cholera had been seen in the previous years and therefore probability of seeing it again was existent. These panels should be comprised of two physicians whose areas of specialisation were cholera; a bacteriologist; six disinfectors; six guards; six nurse attendants; an administrative officer; a sterilisation machine; and some caretakers. Furthermore, this panel should have a small mobile hospital unit including bacteriology and disinfection tools and equipment and pharmaceutical products and some tents. A panel established in the indicated way could have a chance to gain access to areas where cholera was seen speedily and to attend to the matter and to prevent the disease from spreading.

It was stated in the project that one of the main reasons for the aggravation of the disease was the attempts of the public to hide it. Therefore, those who hid the disease and those who did not inform the authorities despite having heard of its existence should be punished and the same should be publicly announced via newspapers. Furthermore, those who died because of cholera should be medically examined by the physicians and buried in accordance with the medical conditions, bacteriological analyses should be carried out on the samples taken from the water supplies used in cities or villages and water only should be drunk after being boiled. When cholera appeared, the patients should not be left in their houses, but be

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[213] BOA., DH.ID., 166 / 2 (1331.R.27- April 5, 1913).

transferred to hospitals to be established outside of the city or village. If this was not possible, the house should be kept under quarantine. After the patient recovered, analyses should be made a couple of times, the house of the patient and his/her personal belongings should be disinfected, personal belongings that could not be disinfected should be burned and these precautions should be repeated for a while after the disease was destroyed. It was thought that, the sanitary panel, could also fight malaria[214] and syphilis, which damaged many people in Anatolia.

In the third section, expenses that would be made for the new arrangements were explained. Notwithstanding it was estimated that the establishment of the concerned panel and its operation for three to four months would cost a considerable amount, when the expenses made both in Anatolia and Istanbul for cholera each year and the damage this disease did to the population and to the commercial activities were taken into account, it was seen that the amount corresponded to one fourth of the entire budget. It was further indicated that 15,000 liras was the total amount needed for the time being, provided that the sanitary panels to be established could be provided by the High Ouarantine Assembly.

The amount demanded for this project was not accepted by Ministry of Finance due to the fact that there was no sufficient allocation in the budget. Furthermore, the project could not be implemented since cholera was endemic at that time.[215]

[214] Malaria: A disease caused by blood parasites of plasmodium type, which is effected by the bite of female anapheles. *Britannica*, vol. 7, p. 725.

[215] BOA., DH.ID., 166 / 2 (1331.R.27- April 5, 1913).

Cleaning Measures

It is seen that a bilateral work was carried out by the Municipality of Istanbul for ensuring the sanitation of both the public and the city. At the beginning of the war, the sanitary conditions of the places where the first refugee groups were settled were strictly observed. Physicians sent by the Office of Sanitary Panel (*Daire-i Heyet-i Sihhiye*) medically examined the refugees every day.[216] Those who could be treated as outpatients were treated at the location and those who had caught an epidemic disease were isolated immediately and transferred to hospitals. The Municipality of Istanbul gave orders to the authorities that the cleaning and sanitation of the refugees should be ensured with due diligence in order to prevent the spread of contagious diseases.

Nevertheless, due to unstoppable increase in the number of infected soldiers and refugees arriving to the city, serious troubles began to be experienced in public hygiene. The authorities were incapable of implementing the health precautions and new arrangements were needed. In a letter sent on this issue, it was reported that the refugees, their cars and animals to be transferred to the other side of the city by means of ferries stood in an overcrowded and disorderly fashion in the streets around Sirkeci port. There were no municipal officers who could enable the cleaning of the street at the said location. It was demanded with a petition that the most congested streets of the city, the sanitation of which was very significant due to the crowding, should not be neglected in this way and that their sanitation should be provided. It was further requested that municipal officers of sufficient number be sent to Sirkeci

[216] Ikdam, 5637, 17 Tesrinievvel 1328 (October 30, 1912), p. 2.

in order to facilitate and arrange the transfer.[217]

The Municipality of Istanbul sent circulars incorporating the new precautions throughout the city. It was also ruled that the public should be continuously informed by means of media in order to protect the overall health of the city. Circulars and precautions prepared for this purpose were regularly announced by means of the media of the period. In the first circular published, it was announced that the city was congested due to the influx of soldiers and refugees, that cholera was seen in some places, and that the sanitation of the city should be carefully preserved in order to avoid the disease. For this purpose the Terkos Water Company should thoroughly irrigate and sweep the streets twice a day free of charge and that the disease should not be allowed to spread.[218] Also, it was decided that the roads and streets should be washed and swept every night for a while and to do that some refugees were employed as day workers and thus the need for employees was satisfied in this way.[219] After the adoption of these decisions, Bâb-i Âli Street, where the refugees were mostly gathered, was washed to Sirkeci port with Terkos water.[220]

In addition to these efforts, since cholera is a disease that spreads via contact and water, the Municipality ruled that boiled water should be used in restaurants and public places like coffee houses, beer houses and sherbet houses. It was declared that, waters of unknown sources should under no circumstances be allowed to be used without boiling. Inspections were to be carried out by physicians and officers of the municipality, who would check to make sure tools like samovar that used for boiling water were being kept by the craftsmen in their business places and whether

[217] BOA., DH. ID 164-2/1 – 11- (1331.B.16- June 21, 1913).

[218] *Ikdam*, 5949, 29 Tesrinievvel 1328 (November 11, 1912), p. 4.

[219] *Ikdam*, 5650, 30 Tesrinievvel 1328 (November 12, 1912), p. 5.

[220] *Ikdam*, 5652, 1 Tesrinisani 1328 (November 14, 1912), p. 5.

the aforementioned precautions were being observed or not. It was indicated that laws to severely punish those who did comply with these precautions were needed.[221]

The Municipality also announced that water should not be drunk without boiling not only in public places but also in homes and that anyone showing symptoms of diarrhoea should not be hid but reported to the Municipality without losing any time by means of the daily newspapers.[222]

Reports of legal action taken against those who hid the disease were published in newspapers daily.[223] Upon failing to receive the desired result in making the public drink water by first boiling it, the municipality started to give away boiled water to those who asked for it. In this regard, under the presidency of *Evkaf-i Hümâyun* and with the assistance by the Red Crescent Society, the Municipality established tea houses in *Evkaf-i Hümâyun*, Hagia Sophia, Eyüp Sultan mosque and their almshouses and in other places chosen by the Red Crescent Society and gave away tea to the public free of charge as of December 9, 1912 (26 Tesrinisani 1328). This service was given to all of those who asked for it between 2 and 4 in the morning and 7 and 8 in the evening, Turkish timekeeping.[224]

Upon the increase in the number of refugees and spread of the disease, the *Meclis-i Umur-i Sihhiye* convened under the presidency of Nuradunkyan Efendi, the Minister of Foreign Affairs (*Hariciye Naziri*) on November 17. In this meeting, an official declaration with regards to the cleaning precautions to be taken by the public in the struggle against cholera was prepared and sent to the newspapers to be published. The summary of this declaration is as follows:

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[221] *Ikdam*, 5650, 30 Tesrinievvel 1328 (November 12, 1912), p. 5.

[222] Ibid.

[223] BOA., DH. ID 164-2/1 – 128. (1331.B.16 – June 21, 1913)

[224] *Ikdam*, 5650, 26 Tesrinisani 1328 (December 9, 1912), p. 5.

Official Declaration on Cholera and General Health

If you wish your city and country to be rid of this calamity of cholera, please do not leave everything to the government, for you also have responsibilities. The precautions you will take are much more beneficial than those of the government since your general health is the overall health of the individuals:

1. Cleanliness is the best precaution against cholera.
2. Wash your hands with soap and lots of water. If possible, clean them with ethyl alcohol, lemon juice and vinegar afterwards.
3. Do not eat anything without first washing your hands; do not put your fingers into your mouth.
4. Boil the water before drinking or rinsing your mouth.
5. Do not eat your food and beverages without cooking and boiling.
6. Wash your dishes with hot water.
7. Do not eat snacks between the meals and go to bed and get up on time.
8. Protect your food and beverages from flies.
9. Leave your shoes and your coat near the door.
10. Do not go to overcrowded places and avoid rubbing against anyone.
11. It is beneficial to use chloride of lime, blue vitriol of 20% and diluted coal tar of 5% in toilets. Wash your hands with soap and water after relieving yourself.
12. Go to see a physician in case of vomiting and diarrhoea.
13. It is the duty of every human and patriot to inform the authorities when someone catches cholera. Because, in this way, both the patient can be treated in time and spread of the disease to other family members can be prevented.

14. Even in the case of ordinary diarrhoea, everyone must boil their clothes and wash them afterwards. Since clothes are dangerous for spreading cholera, they must be neither used nor given away to others before being disinfected.

There is no need to be afraid of cholera or to be anxious provided that the aforementioned precautions are observed. [225]

As far as understood from the declaration, the Municipality of Istanbul wished to act in co-operation with the public against cholera. All operations carried out against cholera were publicly announced and the numbers of those who had contracted cholera or had died from cholera were published in newspapers daily.

Precautions with Regards to Maritime Lines

In the meantime, precautions were also taken with regards to the safety of maritime lines in order to prevent the spread of the disease in the city. Based on this, the Assembly of Sanitation (*Meclis-i Sihhiye*) made some arrangements involving quarantine precautions for the vessels to depart from Istanbul as of November 10, 1912 (28 Tesrinievvel 1328). These decisions can be summarised as follows: the infected vessels, i.e. those in which cases of cholera had been seen for more than seven days, would first undergo a medical examination and then a period of quarantine and disinfection of five days. Furthermore, the drinking water supplies of these vessels were to be renewed after being disinfected, an action to be carried out in one of the Ottoman quarantine unit. Vessels which previously had had cases of cholera but, in which cholera had not been seen in the past seven days, would also

[225] *Ikdam*, 5656 5 Tesrinisani 1328 (December 18, 1912), p. 5.

undergo the same medical examination and cleaning procedures. Their drinking water supplies would also be disinfected and totally renewed in one of the Ottoman quarantine units or sanitary centres according to the sanitary rules.

For the sanitary precautions to be taken by ships sailing into the ports along the Marmara coasts, among ships going to the quarantine unit in Manastiagzi, those with sterilisation machines were allowed to do their own cleaning under the surveillance of the physicians of the quarantine unit. Based on the same rules, it was decided that ships going to ports in the Marmara coast from Istanbul should undergo a medical examination in one of the locations of Galata, Yenikapi, Haydarpasa or Salacak and in the case of the availability of a sanitary officer or a municipal physician at their port of arrival, they were to be examined again there. Furthermore, it was ruled that sailboats were also liable to obey the precautions accepted for the vessels.[226]

Precautions with Regards to the Railways

The government also prepared a regulation on railways in order to avoid delays in railway services and in the transportation of passengers and to protect them against disease during their travels. In the regulation, some liabilities like isolating passengers suspected of carrying epidemic diseases such as cholera, plague, etc., medical inspection at the location and assisting the health officers in the application of the precautions were indicated and the concerned regulation was sent to all railway companies. The precautions taken can be translated as follows:

[226] BOA., DH. ID 164-2/1 -23,24; and Ikdam, 5652 1 Tesrinisani 1328 (November 14, 1912) p. 5.

1. A panel made up of sanitary officers and police officers must be sent to each and every railway station by the Ottoman government in order to diagnose the epidemic diseases that can be seen in railways. The passengers will be allowed to continue travelling after they are examined medically under the supervision of this panel.[227] Since epidemic diseases can only be diagnosed by means of a medical examination conducted by a physician, neither the Railway Administration (*Simendifer Idaresi*) nor its officers accepts liability in the case any of the passengers is found to carry an epidemic disease. In accordance with the regulation, in the case of diagnosis of one of these epidemic diseases in one of the railway engines, the necessary precautions will be taken by the official physicians.
2. Passengers who have caught an epidemic disease must be transferred to a separate railway car or a special compartment, according to the conditions available, by the Railway Administration.
3. Passengers who must travel in separate railway cars due to their diseases must pay the tariff of such separate cars to the Railway Administration.
4. Passengers coming from locations suspected of having disease or from infected locations, who are allowed to travel after their medical examination, will continue their journey in separate railway cars.
5. The necessary precautions for the sanitation and disinfection of passengers and refugees coming from foreign lands or districts where cholera or plague has been seen as an epidemic will be examined by the sanitary officers at locations determined by the Ottoman government. Getting off the train during the journey at places other than the stations

[227] BOA., DH. ID 46/ 94 – 11-(1331.Z.23 – November 23, 1913).

determined by the Ottoman government is strictly forbidden. For this purpose, an order for affixing signs saying "Train Passing by and Transferring Passenger at the Locations Where an Epidemic Disease Has Been Seen" unto such trains has been given to the municipality polices at each railway station.

6. Buildings must be constructed for the official physicians in the railway stations of which they are in charge, outside the boundaries of the stations and at a short distance from the same. Since the stations are usually crowded, they are not suitable for the quarantine precautions taken to fight against epidemic diseases. All costs and disbursements necessary for the construction are to the account of Administration of Sanitation (*Sihhiye Idaresi*).[228]
7. Railway Companies providing services to the areas where epidemic diseases have been seen must arrange their trains as separate railway cars or private rooms, render the necessary compartments for disinfection, and keep readily available special bags to be used in the cleaning of the personal belongings in the railway cars.[229]

Hospitals Established in Istanbul

The Municipality of Istanbul worked to implement the decisions taken by the Assembly in a strict manner in order to eradicate cholera and to prevent its further spread in the city. As indicated before, among these decisions, establishing hospitals for the diagnosis and treatment of patients was given top priority. The Municipality

[228] BOA., DH. ID 46/ 94 – 8-(1331.Z.23 – November 23, 1913).
[229] BOA., DH. ID 46/ 94 – 11- (1331.Z.23 – November 23, 1913).

was supported by the Ministry of War, the Red Crescent Society and the High Quarantine Assembly in this regard. Hence, hospitals were established almost everywhere in Istanbul in a short time in order to hinder cholera and to treat the sick soldiers and refugees to come or those who had already come. For this purpose, the big hotels and mansions along the Bosphorus were evacuated and many domestic or foreign schools in the city (Kabatas, the Greek High School, Galatasaray, the Teacher Training School for Male Students (*Darülmuallimin*), the Haydarpasa School of Medicine, the Kadirga Maternity Hospital, the University (*Darülfünun*) – now the Faculty of Science, and the Boarding School for Orphans (*Darüssafaka*) were turned into hospitals and opened for service.

Furthermore, a hospital with a capacity of 110 beds in huts was established by the Ministry of Health in Demirkapi. The Municipality also allocated the Haseki Women's Hospital to pregnant, weak or sick women among the refugees. In addition, a cholera hospital of 100 beds was established within the boundaries of the palace and many other cholera hospitals of ninety beds were established in different parts of the city. The huts erected around the Sirkeci Railway Station were also allocated to cholera patients.[230]

For the treatment of sick refugees, the Red Crescent Society opened "refugee hospitals" in various parts of the city and provided health services. The Society, first of all, taking into account that many of those who had been settled in huts outside of Yedikule were sick, appointed two mobile doctors for medical treatment and a midwife to attend to the pregnant women there. These doctors visited the huts and mosques where these refugees were living every day and tried to treat the sick. All of their medical needs were being covered by the society. Nevertheless,

[230] "Emraz-i Sâriyeye Karsi Mücadele", *OHAM* no. 6 (17 Cemaziyelahir 1340 / February 15, 1338), pp. 134-135.

these arrangements were not enough. Fully-equipped hospitals were needed for the severely ill. Therefore, the manor of Resit Pasha, the Governor of Erzurum, in Parmakkapi was hired and turned into a hospital for refugees with a capacity of 100 beds and opened on February 8, 1913 (26 Kanunisani 1328).[231] The Refugees Hospital, comprising of two units one for male and one for female patients, admitted 258 female and 98 male patients before the end of February. Sixteen of the female patients and four of the male patients died whereas the others recovered and were discharged from the hospital.[232]

Another refugee hospital was opened in Kandilli. Since most of the refugees were ill and buildings were needed for their treatment, with assistance of some benefactors, the *Agalar Dairesi* of Prince Celalettin Bey's Palace was allocated for use as a hospital of 50 beds. All of the costs and disbursements of the Kandilli Hospital, opened on November 7, 1912 (25 Tesrinievvel 1325) were covered by the Ottoman Red Crescent Society. From its opening until the end of the first three months, 114 patients were accepted and only five of them died.

Additionally, the cavalry station in Sisli and Riza Bey Manor, situated across the station, were turned into a hospital of forty-five beds in November under the management of Dr. Klemor. This capacity was increased to sixty beds soon after its commencement of services. The disbursements of the hospital were covered with the monies Dr. Klemor received from benefactors in Istanbul, Britain and India. The Red Crescent Society provided materials and equipment to this hospital. The number of the sick and wounded treated in this hospital in three months was 155.[233]

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[231] *Osmanli Hilal-i Ahmer Cemiyeti 1329-1331 Year Book*, p. 227.

[232] ibid., p.138.

[233] ibid., p.163.

During this period, an assistance panel made up of three physicians, two British and three German nurses from the British, American and Egyptian Red Cross came to Istanbul. These Red Cross teams looked after patients of limited number each in a house.[234] Other than this, the grand saloon of the German Hospital and some French schools in Moda were turned into cottage hospitals managed by foreign nurses.[235]

The Red Crescent Society, besides the refugee hospitals, also opened hospitals for the sick and wounded soldiers transferred to Istanbul. Five military hospitals were put into service in October and November, treating hundreds of sick and wounded soldiers. The first hospital established by the Society in Istanbul was Kadirga Hospital. Upon the declaration of war, the Kadirga Maternity Hospital was turned into a hospital of 100 beds under the management of Dr. Besim Ömer Bey on October 22, 1912 (9 Tesrinievvel 1328). It is known that after a while the hospital was enlarged with the addition of huts with the equipment of latest technology, with a capacity of 130 beds. Within four months after the opening of the hospital, 369 wounded and 294 sick, in total 663 servicemen, were admitted to the hospital and with the exception of twelve wounded and eight sick casualties, all of these patients recovered. Another hospital opened by the Society for the treatment of sick servicemen transferred to Istanbul was *Darülfünun* Hospital. Istanbul University (*Osmanli Darülfünunu*) was closed temporarily on November 30, 1912 (18 Tesrinievvel 1328) and was turned into a hospital by the Red Crescent Society. The building, which was arranged as a hospital with 400 beds, received an additional 200 beds after a while since the number of patients had multiplied. From its opening until

[234] Noyan, p. 7.

[235] Özbay, pp. 96-97.

the end of February, in total 2,042 wounded and sick soldiers, 1,165 of whom were sick, were admitted to the hospital. 81 of them were lost, the remaining recovered and either returned to their detachments or were sent back to their homelands.[236]

Classes at Vefa High School were dismissed and the building was evacuated and turned into a hospital of 150 beds on November 6, 1912 (24 Tesrinievvel 1328). Both wounded and sick soldiers were treated at Vefa Hospital. Of the 377 sick and 236 wounded soldiers who were treated in the hospital from November until the end of February only thirty-two died. During the spread of cholera, a hospital established in huts with a capacity of 110 beds was founded by the Ministry of Health in Demirkapi, which was within the walls of Topkapi Palace. In this hospital, put into service as Demirkapi Hospital, first cholera patients were treated. After the disease completely disappeared, all incoming sick and wounded soldiers were admitted. The hospital was assigned by the Ministry of Health to the Red Crescent Society on February 14, 1913 (February 1, 1328) and health services continued.[237]

During this period, Taskisla (now the Faculty of Architecture of Istanbul Technical University) was converted into a hospital of 2,000 beds by the Armed Forces on November 2, 1912 (20 Tesrinievvel 1328) and was separated into many sections. The hospital section of the building was reserved for the wounded and sick and some sections were allocated to foreign health panels of Red Cross who visited to Istanbul or were formed locally by the embassies. From its opening until the end of February, 5481 wounded and sick were treated in this hospital. [238]All of the arrangements made, however, proved to be inefficient due to the endless flow of soldiers and refugees into the city and the spread of cholera.

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[236] *Year Book*, pp. 123-124.
[237] ibid., pp.134-136
[238] ibid., p.163.

Thereupon, the Municipality of Istanbul opened all of the medreses, barracks, inns, and yards of dervish lodges, baths, hotels, mansions and even all mosques, including Hagia Sophia, Sultan Ahmet and Sehzadebasi Mosques with the permission of Seyhülislam Cemalettin Efendi, for health services. Soldiers and civilians suffering from the same disease were kept under quarantine and treated in these centres. For example, the Red Crescent Society provided medical assistance and food to 3,600 soldiers at Hagia Sophia, 1,200 soldiers at Sultan Ahmet Mosque, 450 soldiers at Nuruosmaniye Mosque, and 1,250 soldiers in Mahmutpasa Mosque until their isolation periods expired.[239]

Aid from the Red Cross Societies

These tragic and extraordinary conditions in Istanbul had great repercussions throughout the world. Health aid was provided by many countries. Among them the Egyptian, Indian, British, Romanian, German, Austria-Hungarian, Belgian, Swedish, Swiss, Russian, American, Dutch and French Red Cross Societies provided medical services until the end of the war through the hospitals they opened in different parts of Istanbul. Among these commissions, the Egyptian and Indian Red Cross Societies went directly to the zones of conflict, preferring to establish their mobile hospitals at the front whereas the other commissions carried out their activities in different hospitals in Istanbul.[240]

The Egyptian Red Cross Society conducted its activities with four commissions in Istanbul. The hospital in tents established by the first unit in

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[239] Akgün and Ulugtekin, p.110.

[240] *OHAM.*, no. 6 (17 Cemaziyelahir 1340 / February 15, 1338), p. 135.

Sazlibosna moved to the huts erected in Hadimköy on November 26, 1912 (13 Tesrinisani 1328) upon the rapid increase of cholera. The second commission initiated its activities with a hospital of 200 beds in Beylerbeyi on December 16 (3 Kanunuevvel 1328). The third commission assumed the treatment of cholera patients by turning a house they had hired in Ayastefanos into a hospital of 270 beds on December 21 (8 Kanunuevvel 1328). The fourth commission started the treatment with a hospital of 360 beds in Maltepe on December 28 (15 Kanunuevvel 1328). In addition to these, the Egyptian Red Crescent Society established a hospital of 52 beds in Yedikule for sick and wounded refugees. Furthermore, a floating hospital of the Society for the sick (*Bahr-i Ahmer Hastaliklar Vapuru*) was allotted in order to transfer the sick and wounded in Rumelia to Anatolia. This ship, which was a floating hospital of 100 beds, included a sanitary commission of five physicians, twenty-four nurses and two caretakers. This ship made many journeys between Selanik and Izmir and transferred more than 1,000 wounded and 10,000 refugees before February 23.[241]

The Indian Bahr-i Ahmer Society, when they arrived in Istanbul, provided services first in Darülfünun Hospital and in a mobile hospital of 100 beds in the Ömerli quarter in Çatalca. Some members of the mobile hospital unit were transferred to Gallipoli in the second half of the Balkan Wars.[242]

The Romanian Red Cross provided medical services in the hospitals appropriated in *Darülfünun* and *Darüssafaka.* The British Red Cross helped the sick and wounded in the cholera hospital in huts they built in Ayastefanos, in the hospital of 150 beds in the School of Fine Arts (*Sanayi Nefise*), at Ali Bey Farm in Çatalca

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[241] *Year Book* pp. 178-184.

[242] ibid, pp. 185-187.

and in the hospitals they established in Beykoz.[243] The German Red Cross worked with a unit of two physicians and volunteer nurses in Gümüssuyu Hospital. The Austria-Hungarian, Belgian, American Red Cross Societies worked in Taskisla whereas the Dutch Red Cross worked in a hospital of 100 beds they established in the Military School (*Mekteb-i Harbiye*), the French Red Cross admitted patients and wounded to Etfal Hospital and the Military School (*Mekteb-i Harbiye*) under the presidency of the embassy of Istanbul and thus provided medical assistance.[244]

Other Foreign Assistance

The rapid spread of cholera in Anatolia, especially in Istanbul, during the Balkan Wars made the European states anxious, too. The foreign members of the High Quarantine Assembly were apprised of the dimensions of the threat during the meetings held for the struggle against cholera within the Assembly and warned their countries. Especially the dissemination of the disease in Istanbul constituted a great danger for the overall health of Europe. As a result of the sensitivity of the European public opinion on this matter, some physicians and commissions were sent from Europe to Turkey and support was given to the Sublime Porte by means of creating solutions to the problem. As such, in an official letter sent from the Ministry of Foreign Affairs (*Hariciye Nezareti*) on November 28, 1912 (15 Tesrinisani 1328) it was indicated that three physicians from the British Red Cross were to depart from Britain to come to Turkey with some pharmaceuticals and medical equipment on

[243] ibid, pp. 189-190.

[244] ibid., pp. 193-198.

December 9 with the purpose of engaging in the treatment of cholera patients. The Ministry of the Interior was asked to assist them.[245]

On the other hand, it was learnt from the Embassy of Paris that upon the decision adopted by the Commission for International Health (*Beynelmilel Sihhat-i Umumiye Heyeti*), the president and chief clerk of the commission wished to visit to Turkey, provided that all of their disbursements would be to their own accounts. The Ottoman State discussed this issue in a Cabinet meeting and adopted a positive approach to the visit of the said commission.[246] A letter regarding this issue was passed from the Prime Ministry (*Sadaret*) to the Municipality of Istanbul due to its connection with the matter by the Ministry of the Interior on December 16 (3 Kanunuevvel 1328) and it was requested that the necessary actions be taken on the matter.[247]

Furthermore, a pamphlet in German, written by Dr. Jul Olha, including general information on cholera and treatment methods, was sent from Hungary via the Chief Consulate of Budapeste. This pamphlet was distributed to all relevant institutions through the Ministry of Foreign Affairs.[248] The Directorate of Institute of Pasteur sent a letter on the serum preparation produced against some epidemic diseases like cholera and dysentery to the Sublime Porte.[249]

Besides the aforementioned foreign aids, Madame Bonpor, the wife of the French ambassador, sent fifty barrels of chloride of lime on behalf of the French Red

[245] BOA., DH. ID 164-2/1 – 92 (1331.B.16- June 21, 1913).

[246] M.V. D 172, G 10 (1331. M.5 – December 15, 1912).

[247] BOA., DH. ID 164-2/1 - 137 (1331.B.16-June 21,1913).

[248] BOA., DH. ID 55 / 83 (1330. Z. 22 – December 2, 1912).

[249] BOA., DH. ID 55 / 82 (1330..Z.15 – December 25, 1912).

Cross to the Municipality of Istanbul to be used in sanitation efforts against cholera.[250]

In addition to the commissions from Europe, the Ottoman State brought in some European experts to eradicate cholera. At first, three physicians from Vienna, who were experts in this area, were asked to come to Turkey but later on the government decided against it since the disbursements would be very high.[251] Later, upon a Cabinet decision adopted on December 4, 1912 (21 Tesrinisani 1328) it was resolved that Monsieur Mahvi Pollak of Vienna, a cholera specialist, should be brought in for the treatment of cholera patients and the application of quarantine precautions.[252] In accordance with the agreement made, Monsieur Mahvi Pollak was to come to Istanbul in order to work in the Muslim Orphanage (*Gureba-yi Müslimin*) Hospital in consideration of a fee of 1,000 crons in total, 500 crons of which was payable in Vienna and the remaining part in Istanbul.[253] Nevertheless, since there was no provision for this amount in the budget despite the agreement, the government faced difficulty in paying this fee. Upon the inability of the government to pay the salary of the first two months including the travel costs after the physician started working, since the possibility that Monsieur Pollak might apply to the Embassy of Vienna was taken into account, it was decided that the concerned amount should be paid from the cholera allocation of the Municipality of Istanbul.[254]

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[250] Halaçoglu, p.103.

[251] M.V. D 171, G 74, (1330. Z. 23 – December 3, 1912).

[252] BOA., DH. ID 164-2/1 – 110 (1331.B.16 – June 21,1913).

[253] BOA., DH. ID 164-2/1 –122 (1331.B.16- June 21, 1913).

[254] BOA., DH. ID 164-2/1 –122,123,124- (1331.B.16- June 21.1913).

The Sanitation of the Water Sources

Since cholera is a disease that spreads via water, the most significant issue on which the government focused was the sanitation of water sources. If the water sources were infected, the overall health of the city would be endangered. When military units from the Çatalca line were transferred to the locations of the water resources, the fact that some cholera patients were among them posed a great danger. In a meeting held by the High Quarantine Assembly on November 17, 1912 (4 Tesrinisani 1328) long discussions were made on the sanitation of the water resources of the city and some precautions were proposed. It was pointed out that the water of Istanbul came from the Terkos and Kagithane reservoirs. These areas were in danger of contamination since cholera patients and corpses had been transferred there. It was proposed that the area surrounding Terkos Lake be evacuated, that the soldiers stationed around the village undergo cleansing, that the corpses be buried immediately, that bacteriological analyses be made on the water daily, that the Kagithane water sources be kept under guard and that the use of the waters of the reservoir be prevented.[255]

The seriousness of the situation was also emphasised in official correspondences carried out on the matter and similar proposals were made. For example, in a letter forwarded by Mayor Cemil Bey to the Ministry of War and the Ministry of the Interior on November 24, 1912 (11 Tesrinisani 1328), it was indicated that fifty plane soldiers had been settled around the engine room of the spring of Kagithane and that there were cholera patients among them. It was further stated that it was not appropriate to transfer such crowded groups of soldiers to a

[255] MU. SIH., 13, no 47, D. No.2563.

place which provided the water supply of 300-400,000 people while there was a cholera epidemic in the city. It was requested that the Ministry should act immediately to send these units to other locations.[256] After this letter, the Ministry of War had the concerned soldiers transferred to other areas on December 1 (18 Tesrinisani 1328) thereby eliminated the threat.[257]

In another letter sent the next day, it was reported that cholera had been seen among the soldiers settled around Terkos Lake. It was requested that all the necessary equipment and a bacteriologist be sent to this area in order to prevent the contamination of the water and that filters should forthwith be constructed in the lake. Thereupon, the necessary precautions were taken and it was decided that samples should be taken from the waters coming from Terkos and given to the network of the city and that these should be analysed daily. Bacteriological analyses should also be conducted on the water sources of the Turunçlu, Halkali, Kirkçeme and Taksim distribution points, which were the sources providing water to the city.[258]

In an activity report sent by the *Meclis-i Umur-i Tibbiye-i Mülkiye* to the Ministry of the Interior, it was stated that after receiving the news that soldiers had been transferred to the environs of Kagithane spring, the Ministry of War had had these soldiers moved somewhere else and that physicians had been sent to Terkos Lake by the Municipality for inspection, together with the physicians charged by the *Meclis-i Umur-i Tibbiye-i Mülkiye* and the Ministry of War.[259]

Complaints were received with regards to the sanitation of the springs since refugees were allowed to settle around the water sources. In a letter sent by the

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[256] BOA., DH. ID 164-2/1 –72,76-(1331.B.16- June 21,1913).

[257] BOA., DH. ID 164-2/1 –102,103- (1331.B.16 – June 21, 1913).

[258] BOA., DH. ID 164-2/1 –142- (1331.B.16- June 21,1913).

[259] BOA., DH. ID 164-2/1 –128- (1331.B.16- June 21,1913).

Ministry of the Interior to the Municipality of Istanbul on November 18 (5 Tesrinisani 1328), it was alleged that some of the refugees who had come to Istanbul and wandered through each and every part of the city had been settled around the Elmali and Kirkçesme sources. The Ministry demanded that the refugees and soldiers immediately be transferred elsewhere and that these sources be kept under guard like Terkos.[260] In addition, upon the news that the water distribution pipes, transporting the water of Halkali spring to Hagia Sophia and Sultan Ahmet Mosque, state offices and residences had been broken by refugees in Kalfa and Eype villages, threatening the overall health of the public, the protection of these areas was requested by the Commander of the Gendarmerie.[261]

In the reply of December 6, 1912 (23 Tesrinisani 1328) to these complaints, it was stipulated that no refugees were found in the concerned villages during the investigations made, that it was understood that only the flow of the water had decreased and that the inspection was still being conducted.[262] In another investigation made upon a similar complaint, it was further declared by the Governorship of Istanbul that no soldiers or refugees who were suffering from cholera were settled around Göksu, Elmali or Kayisdagi springs, that these kinds of people under no circumstances could be allowed to settle in these places and that security was provided by soldiers, who patrolled the area. Furthermore, as a result of an investigation, it was indicated that Tasdelen and Kayisdagi waters were clean and far from any kind of contamination.[263] In the same manner, the Governorship of Istanbul informed the authorities on December 8 that water springs in the area of

[260] BOA., DH. ID 164-2/1 –58-(1331.B.16- June 21, 1913).

[261] BOA., DH. ID 164-2/1 – 83 –(1331.B.16- June 21, 1913).

[262] BOA., DH. ID 164-2/1 – 114- (1331.B.16- June 21, 1913).

[263] BOA., DH. ID 164-2/1 - 96- (1331.B.16- June 21,1913).

Küçüksu were being continuously guarded by four gendarmeries and that three to four patrols were sent each week and that the security of the water resources was absolutely preserved.[264] Additionally, as of the appearance of the disease, physicians had the Kirkçesme and Taksim dams and Elmali spring inspected and the Commander of the Gendarmerie had these springs put under guard. No refugees were allowed to approach them. It was speculated that the reason for these baseless complaints was the uneasiness the inhabitants of the area felt towards the refugees.

Meanwhile, bacteriological analyses were being conducted daily on water samples taken from various springs within the city in order to see whether they were infected with the cholera microbe. For example, it was reported that the cholera microbe was found in samples taken from Terkos and Kagithane waters as of December 9 to December 15.[265] In the analysis made on December 17, 1912 (4 Kanunuevvel 1328), it was indicated that the comma bacillus of cholera had been seen in the water. Similarly, cholera was found in a sample taken from Çemberlitas on December 20 (7 Kanunuevvel 1912).[266] After bacteriological examinations were made on the water samples, the results attained were publicly announced via newspapers. Additionally, wells in the city were disinfected by the sanitation officials by means of pouring "manganit potas elfas" in them.[267] It is understood from all of the above described applications how serious the attitude assumed by the government was towards the protection of the water sources.

The sanitation of the water sources gained importance again during the cholera outbreak that emerged in Kartal on February 6. All of the authorities acted

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[264] BOA., DH. ID 164-2/1 – 97-(1331.B.16- June 21, 1913).

[265] MU. SIH., no 51, D.no. 2563, p.11.

[266] MU. SIH., no 52, D.no. 2563, p.6-7.

[267] BOA., DH. ID 164-2/1 -128- (1331.B.16- June 21, 1913).

with great sensitivity to the sanitation and preservation of the water sources in order to prevent the disease from disseminating to the city. As a result of the examination made, it was understood that the stream originating in Yakacik and coming to Kartal by circulating among the houses constituted a great danger since it was contaminated by the sewage of the soldiers and the public. Therefore, upon the decision adopted by the commission, it was ordered that no one should touch or use these waters until the soldiers had been transferred to another place.[268]

In another case, it was decided that the tap water coming to Kartal, the dams established around the Hüsnüpasa Kiosks and all wells should be put under guard and bacteriological examinations should be made frequently.[269]

The Burial of Corpses

One of the most important issues to be dealt with during the struggle against cholera was the burial of corpses. Since some of the soldiers and refugees who came to Istanbul died from the disease or from other causes, there were many corpses in and outside of the city. Failure to bury these corpses and leaving them uncovered not only aggravated the disease but also endangered the overall health of the city. In accordance with the records of the High Quarantine Assembly, the burial of corpses was to be done in a place determined by the government in accordance with the medical conditions. Commissions entrusted with this task were to be formed, the graves were to be dug deep and lime in sufficient quantities was to be poured in them. Furthermore, it was to be carefully observed that the corpses were under no

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[268] BOA., DH.ID. 164-1/2 –25, 86- (1331.R.21- March 30, 1913).

[269] BOA., DH.ID. 164-1/2 –4- (1331.R.21- March 30, 1913).

circumstances to be washed before burial.[270] Big disagreements were seen regarding the authority that would apply these precautions. The Municipality of Istanbul declared that it could not carry out the whole task alone due to limited resources and personnel. The General Director of the High Quarantine Assembly (*Meclis-i Umur-i Sihhiye Genel Müfettisi*) argued that all corpses both inside and outside the city should first of all be transported to a single location and suggested that the Assembly should undertake this business, but the Assembly did not accept this proposal. Despite the fact that the Cabinet (*Meclis-i Vükelâ*), the minutes publicly announced on November 16, 1912, ruled that the burial of the soldiers who were settled in mosques should rest with the Ministry of War, major troubles were encountered during the application.[271]

This uncertainty led to disagreements and tension between the military and civil authorities from time to time. In a letter sent by the Municipality of Istanbul on November 17 (4 Tesrinisani 1328), it was indicated that the number of those who had died among the soldiers who were sheltered in Hagia Sophia and Demirkapi Hospital had exceeded 500 in a single day, that despite the efforts shown, only 110 of them had been buried whereas the remaining dead soldiers could not be. The Armed Forces, which was the authority with all of the feasibility and equipment to conduct this business, was negligent in this issue. It was further indicated that the Municipality of Istanbul was engaged in the business of the settlement and food supply of thousands of refugees and wounded soldiers, therefore the means available were not appropriate for taking care of the dead, furthermore, the Municipality could

[270] MU.SIH 13, no 47, D.no. 2563.

[271] BOA., DH. ID 164-2/1 -40- (1331.B.16- June 21, 1913).

not be held responsible from the heath problems that might arise due to corpses of the cholera patients left unburied.[272]

Cholera Outbreaks in Other Cities

Ankara, Bursa, Konya, Adana, Samsun and Bolu were the most significant places in which the refugees from the front would be settled. It was highly important that refugees be medically examined before they were transferred to these cities; otherwise, cholera might spread throughout Anatolia. Therefore, the government decided that the refugees who would be sent from Istanbul or via other ports or railway stations to Anatolia should undergo quarantine and disinfection procedures. If cholera cases were found among these people, these patients would immediately be isolated from the others. Furthermore, it was deemed obligatory that the *Muhacirin Müdüriyeti* and *Muhacirin Komisyonlari* had one sanitary director each and municipal physicians within their bodies. Refugees who were transferred to the places of settlement would be temporarily accommodated first and after their medical examination, those found to be carrying the disease would be sent to the nearest hospitals and those who were healthy would be sent to their permanent settlement areas. This procedure was critical in preventing the spread of epidemic diseases.

The determination of cholera patients among the refugees after the transfer had been initiated revealed the fact that the necessary care and diligence were not given to this procedure and complaints started to come from the migration centres. For example, in a telegram sent to Ministry of the Interior on November 16, 1912,[273]

[272] BOA., DH. ID 164-2/1 – 43-(1331.B.16- June 21, 1913).

[273] Since the Ministy of the Interior was responsible for all works with regards to the refugees, cities that were determined as the migration centres were directing all kinds of information

it was reported that a group of 297 refugees had arrived on November 2 and another group of 50 refugees on November 3 (20-21 Tesrinievvel 1328) to Ankara from Istanbul and three cholera cases and nine dead had been found among them. In order to prevent the dissemination of the disease to the inhabitants of the city, by an order sent from *Meclis-i Tibbiye-i Mülkiye* and *Sihhiye-i Umumiye Riyaseti*, it was decided that these groups should be secluded in appropriate places for ten days and that they should not be allowed to mix with the inhabitants of the area. If no new cholera cases were seen within this period, this group would be settled. The city centre demanded that these refugees be directly sent to Ankara for there was no physician in the small residential areas affiliated with the centre, that the costs of the physician, guardian and medical equipment, etc. be covered by the settlement and food supply allocations be sent and that 50,000 piasters be sent for future disbursements.[274]

The complaints that arose with the transfer were not limited to Ankara. It was reported that since none of the medical rules had been applied despite the fact that there had been cholera patients among the refugees transferred from Istanbul to Bursa, the disease had spread to transfer centres like Bursa, Gemlik and Mudanya.[275] It was reported that nineteen persons had died from the disease in question in Bursa in five days as of November 23.[276] Even if it was not named, it is most likely that this disease was either cholera or dysentery. Similarly, it was declared that although thirty persons had died from cholera in Eskipir village of Erdek district, no physician

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on the conditions of the immigrants coming to their area to this authority. The Ministry of the Interior communicated this information with the Presidency of the General Directorate of Health (*Meclis-i Tibbiye-i Mülkiye* and *Sihhiye-i Umumiye Riyaseti*) immediately.

[274] BOA., DH.ID., 164-2/1 –51-(1331.B.16-June 21, 1913).

[275] BOA., DH.ID., 57/ 9 –59-(1330.R.11- March 30, 1912)

[276] BOA., DH.ID., 164-2/1 10 Tesrinisani 1328 (November 23, 1912).

had been sent to the area despite all warnings and requests.[277] Furthermore, the Administrative Office of Bolu warned the Ministry that cholera patients had been seen among the refugees transferred from Istanbul to Zonguldak.[278]

Upon these complaints, the *Meclis-i Tibbiye-i Mülkiye* and *Sihhiye-i Umumiye* sent official letters to the relevant authorities that the refugees should be transferred under medical surveillance. Furthermore, it was ordered that the sanitation levels of the centres in which the transfers would be made be assessed. It was decided that in order to realise this aim, Ottoman cities should keep schedules indicating the daily health condition of each city within the records of daily events (*vukuat-i yevmiye jurnali*). The concerned schedules were to be sent to Presidency of the Medical Office *(Sihhiye Dairesi Riyaseti)* each day. In the case of a report of cholera or another suspicious disease, no transfer of soldiers would be made to that city.[279] It is understood that despite these decisions, their application was not at the desired level due to insufficient staff and medical deficiencies.

In a telegram received from the Directorate of Health of Ankara (*Ankara Sihhiye Müfettisligi*) on November 22 (9 Tesrinisani 1328) it was stated that cholera continued to be seen among the refugees sent to Ankara, whereas weak soldiers had been lodged in cavalry and private barracks which had been allocated originally for their isolation, therefore great difficulties were being encountered during the isolation of the sick refugees. It was demanded that the settlement of the refugees in the locations to which they were sent should be ensured in the best way possible with the necessary due diligence and that isolation units in case of epidemic diseases

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[277] BOA., DH.ID., 57/ 9 –56- (1330.R.11- March 30, 1912)

[278] BOA., DH.ID.,165/3 14 Tesrinisani 1328 (November 27, 1912).

[279] BOA., DH.ID., 165/ 18 1331.R.28 (April 6, 1913).

should be prepared beforehand in order to prevent the spread of the disease to Anatolia. [280] A similar complaint was raised from Izmir regarding the refugees sent there. It was requested that the locations necessary for the isolation and treatment of patients should be prepared by the commissions of refugees established in the centres of districts and *liva* (an administrative / regional unit) before the refugees arrived.[281]

Another city in which cholera was disseminated via refugees was Samsun. Upon the appearance of cholera in that city, it was requested that those who were to be sent there should first be quarantined in the Sinop quarantine unit and those who already carried the disease be kept under guard in order to prevent the spread of the disease. Since Samsun and Canik were deemed as the areas of chronic cholera epidemic, based on a decision adopted by the Ministry of Health, it was decided that people leaving Samsun by ship should be kept under quarantine for five days in the quarantine units of Sinop and Surmina. It was further ruled that marine vehicles that were learnt to have departed from other coasts but had docked along Trabzon or Sinop coasts and entered into illegal contact with vessels under quarantine should also be transferred to one of the quarantine units in Sinop or Yasorefe; the *Meclis-i Tibbiye-i Mülkiye* and *Sihhiye-i Umumiye* requested two gunboats from the Ministry of the Navy (*Bahriye Nezareti*) for such transfer.[282]

The City of Kastamonu demanded the allocation of a vessel for the sanitary control of the ports and coastal areas near Samsun. In the telegram sent for this purpose, it was demanded that one of the ships that had been ordered from Britain and that were reported to have departed should be sent to the Black Sea region.[283]

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[280] BOA., DH.ID., 164-2/1 –79-(1331.B.16- June 21,1913).

[281] BOA., DH.ID., 164-2/1 –80- (1331.B.16- June 21,1913).

[282] BOA., DH.ID., 57/ 9 –16- (1330.R.11 – March 30, 1912)

[283] BOA., DH.ID., 57/ 9 1330. R. 11 (March 31, 1912).

Military support was also needed in dealing with the problems that might arise during the application of the precautions taken against cholera. The *Meclis-i Tibbiye-i Mülkiye* and *Sihhiye-i Umumiye* demanded the employment of troops in sufficient number in this area from the Ministry of War in order to assist the preservation of the cordons maintained in the area, the transfer of passengers who did not stop by the quarantine areas to the quarantine units and the execution of the Code of Sanitary Offences (*Cerayim-i Sihhiye Kanunu*)[284] adopted by the decision of the sanitary commission, whereupon it was decided that two officer commanders and a platoon of fifty soldiers from an appropriate location from Sivas to Diyarbakir should be sent to be commissioned with the protection of the cordon at the border of Amasya and Samsun, and twenty soldiers from the Erzincan Corps should be assigned for the protection of the cordon of the quarantine unit in Sinop.[285] Since the disease spread throughout the city soon after it had appeared, the practice of cordon was started in the city. After the need for more tents arose for isolation of workmen and poor inhabitants of the city who had contracted the disease, the Administrative Office of Canik demanded urgent assistance from the Ministry of War. Furthermore, since the disease continued to be seen in an aggravated manner, it was requested that a sanitary commission from Istanbul should be sent to Samsun without losing time.[286]

Since cholera had been detected in Selanik, Izmir and Istanbul, the *Sihhiye Nezareti* demanded that the quarantine unit of Sinop should be kept open at all times so that ships coming from Istanbul could be quarantined there. The Administrative Office of Sinop (*Sinop Mutasarrifligi*) immediately evacuated the concerned

[284] See Ergin, vol. 6, pp.3565-3567.

[285] BOA., DH.ID., 57/ 9 –22, 28- (1330.R.11- March 30, 1912)

[286] BOA., DH.ID., 57/ 9 –10- (1330.R.11- March 30, 1912)

tahaffuzhane and assigned the same to the sanitary officers.[287] (August 6, 1913/ July 24, 1329).

The Meclis-i Sihhiye, in order to avoid spread of the disease to other cities, decided that fairs (*panayir*) should not be organised. Taking into consideration that cholera, which was being seen in almost all parts of the country, would disseminate much more quickly at fairs, it was announced that no fairs would be allowed in any neighbourhood and the said order was notified to all authorities concerned.[288]

Cholera in Izmir

Izmir was one of the cities affected by the Balkan Wars the most. Together with the war, the government determined the city as a temporary settlement centre and therefore it received thousands of refugees during the war. Many refugees from Kirklareli, Lüleburgaz and the surrounding areas and Edirne sought refuge there. Also, as the government decided that Selanik refugees should also be transferred to Izmir, a large group of refugees came to Izmir from the concerned area. The port of Selanik served as a meeting point for the refugees in Greece. Almost 40,000 refugees, fleeing from the lands lost in Macedonia, who boarded the ships there in a crowded manner, mostly disembarked in Izmir and Istanbul.[289]In addition to these, a large Muslim-Turkish population, escaping the cruelty of Balkan gangs and comitadjis in Macedonia and Kosovo, took refuge in Izmir under miserable conditions.

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[287] BOA., DH.ID., 165 / 22 (1331.N.7- August 10, 1913).

[288] BOA., DH.ID., 57/ 9 –48- (1330.R.11- March 30, 1912).

[289] Aganoglu, p.167.

Ships of foreign organisations and institutions greatly assisted the transfer of Selanik refugees to Izmir. The ships *Bahr-i Ahmer* and *Bahr-i Amal* of Egyptian Red Crescent Society were at top of the list among the others. The Bahr-i Ahmer Hastaliklar ship (the floating hospital of the Society for the sick) was a hospital of 100 beds with five physicians, a pharmacist, twenty-fours nurses and two care-takers, which was prepared to transfer the wounded and the refugees from Rumelia to Anatolia. This vessel made many runs between Selanik and Izmir and transported almost a thousand refugees to Izmir before February 23, 1913.[290] The number of refugees the Bahr-i Ahmer carried to Izmir was almost 2,000 whereas the number of refugees the Bahr-i Amal carried was between 1,500-1,600 by the end of Balkan Wars. Furthermore, the Lazarof of the Russian Company and a ship of the British Lloyd's Company carried many refugees as well.[291]

After the transport of refugees to Istanbul came to an end, some of the ships that had intended to go to Istanbul were directed to Izmir. The increase seen in the number of refugees day by day brought the problem of settlement, whereupon a special commission was established under the presidency of Kemal Bey, deputy governor, and was commissioned to find a solution to the issue.[292] The commission had many of the refugees in Izmir settled in mosques other than Hisar Mosque, small mosques, dervish lodges and schools. Furthermore, many tents were erected in Sinekli and Kizilçali for them. In addition, sample villages were started to be established for the settlement of the refugees. Since it had been decided that the concerned villages should not be smaller than fifty houses, it was deemed appropriate

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[290] *Year Book*, p.185.

[291] Halaçoglu, p.56.

[292] ibid, p. 77

that the people of villages smaller than fifty houses should join the existing villages.[293] Meanwhile, since Izmir was a temporary settlement centre, the refugees who arrived at the city and were settled in the relevant neighbourhoods were later sent to nearby cities like Aydin, Manisa and Mentese.[294] As of March 11, 1913 10,000 refugees came to Izmir.[295] This figure increased to 65,000 by July 18.[296]

The Red Crescent Society financed the settlement and some of the needs of the refugees and donated 3,000 liras to them so that they would not be in financial difficulties.[297] Furthermore, with the help of the British Consul, 1,000 British pounds and 2,000 quilts were collected for the refugees in Izmir.[298] 800 bags of flour and fifty bags of ship's biscuit were sent from Egypt as a food supply for them.[299]

Crowding was seen in different parts of the city due to the heavy influx of refugees. Izmir came face to face with epidemic diseases like cholera, typhus and smallpox. In a letter dated November 30, 1912, it was indicated that the number of refugees in Izmir was increasing day by day: These people mixed with the 300,000 inhabitants of the city As a result, cholera became endemic.[300] The mufti of the area declared that they could not accept any more refugees and demanded that the authorities should do something.

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[293] Alim, p.24. The project of building sample immigrant villages was applied in Adana, Eskisehir and Mersin; Halaçoglu, p.119.

[294] Aganoglu, p.188.

[295] Halaçoglu, p.77.

[296] Justin McCarthy, *Death and Exile*: *The Ethnic Cleansing of Ottoman Muslims, 1821-1922* (Princeton; New Jersey: Darwin Press, 1995), p.181.

[297] *Year Book*, p.229.

[298] Halaçoglu, p.85.

[299] Alim, p.24.

[300] Halaçoglu, p.100.

Upon the news that cholera, which was continuing to spread in Izmir, was also prevalent among the refugees coming from Selanik, the refugees were prohibited to enter the city collectively. It was decided that those who had arrived before that date should immediately be transferred to tents erected outside the city or to small districts, the access to which was difficult.[301] The reason for sending the refugees to small towns, which were not so busy in terms of communications, was to decrease the possibility of the dissemination and spread of the disease. Otherwise, the big cities with crowded populations would be endangered. During the Balkan Wars, no such prohibition was in question for Anatolian cities other than Istanbul and Izmir.[302] However, the concerned decision could not be applied due to inefficiencies and impossibilities and the flow of refugees to Izmir continued.

Upon the outbreak of the epidemic of cholera in Izmir, emergency precautions, similar to those applied in Istanbul, were started to be introduced. The tendency of the disease to spread almost everywhere in Izmir and the river basin of Meriç, posed a threat to anyone coming to Izmir and to passengers departing from Izmir.[303] Therefore, quarantine applications were put into practice. First of all, taking into account that the disease came to the city via refugees, it was deemed obligatory that in all transfer operations to be made, the quarantine rules should be applied. In this regard, quarantine system was introduced November 31, 1912 and all entries to and exits from the city began to be strictly controlled.[304] Accordingly, it was compulsory that passengers who were to depart from Izmir via railway undergo physical examination at the railway stations. Those who were determined not to be

[301] BOA., DH.ID., 165 / 23 (1331.N.8- August 11, 1913).

[302] Halaçoglu, p.57.

[303] Dahiliye Nezareti Emniyet-i Umumiye Tahrirat Kalemi (DH. EUM.THR), 65 / 50.

[304] Halaçoglu, p.103.

infected with any of the epidemic diseases would be given a certificate of sanitation and would be able to buy their tickets by presenting this certificate. Due to this application, the passengers were required to apply to the physicians at the railway stations before buying their tickets.[305]

It was mandatory to keep the passengers who had caught epidemic diseases under quarantine. It was decided that passengers departing from Izmir should be kept under quarantine for 24 hours in the Yafa and Rhodes quarantine centers and undergo the sanitation procedure.[306] Furthermore, passengers who departed from Izmir via railway were to be kept under quarantine in the quarantine unit established in the railway station. However, it is understood that difficulties were faced during the application and that some passengers got off the train at other stations in order to avoid processing in the concerned the quarantine unit. Since these behaviours facilitated the spread of the disease and brought the threat of cholera to many cities especially Bursa, the *Meclis-i Tibbiye-i Mülkiye* and the Ministry of Health ordered that gendarmerie units and the officers of the railway stations in which quarantine units were not present were not to allow passengers to get off the train under whatever circumstances.[307]

One of the precautions taken in order to prevent dissemination of cholera was the establishment of cordons on the Bursa city limits. For this purpose, the relevant authorities attempted to provide thirty tents and determined that these could be purchased from craftsmen engaged in the trading of tents for 250 piasters each. An allocation of 7,400 piasters was demanded from the Ministry of Finance.[308]

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[305] Alim, p.138.

[306] DH. EUM.THR., 65/ 77 “n.d.”.

[307] BOA. DH. ID., 50-1/ 53- “n.d.”.

[308] M.V., D. 155 / G. 33 (1329.S.13- August 9, 1911).

Great care was devoted to the hygiene of the personal belongings of the passengers as well as their medical examinations and the quarantine precautions during the transportation process. In accordance with the decisions made on this issue, passengers travelling to cities surrounding Izmir should bring the personal belongings that they would take with them to the railway stations of Punta, Basmahane and Kemer to have them controlled by the officer in charge. Personal belongings that were not controlled would not be accepted by the Railway Administration. Furthermore, personal belongings used for sleeping, like beds, quilts, cushions and dirty clothes and other laundry would not be allowed. Similarly oil, milk, cheese, ripe and rotten vegetable and fruit and food in dirty dishes and in large wicker baskets would not be allowed and other personal belongings not labelled "disinfected" (*tebhir olunmustur*) would not be accepted.[309]

The spread of cholera in Izmir as an epidemic endangered the military units deployed in this area. In a letter written on August 4, 1913, it was declared that eight cholera cases had been seen in the last twenty-four hours in Izmir and that one of them had died. Contact with the refugees who had recently arrived to the city from Istanbul with the troops posed a major threat. It was demanded that emergent precautions be taken in order to avoid the spread of the disease. Similarly, since the disease continued to be seen in the same way in the city, it was requested that those who would depart from Izmir should also be medically examined. In this regard, it was ruled that those who would depart from Izmir for Dersaadet via ship or on the Anatolia and Soma-Bandirma trains should undergo strict medical examinations.[310]

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[309] Alim, p.138.

[310] BOA., DH.ID., 165 / 20. "n.d."

It was of great importance that the troops transferred to the front be medically examined. The news that some regiments that would be affiliated with the Sixth Army to be formed in Istanbul would be transferred from Izmir was evaluated by a sanitary commission made up of civil and military physicians and it was decided that it would not be appropriate to send the troops through Bandirma because of the disease. It was imperative that these men first of all be sent to the quarantine unit of Klazumen and undergo a sanitation procedure of five days there, afterwhich they should be sent to the corps with which they were affiliated without getting into any contact with Izmir, based on the result of their inspection.[311] On the other hand, it was decided that the troops to be newly transferred from some places, including Izmir, Sivas, Erzincan, Samsun, Trabzon, Denizli and Usak, should be sent via Ankara and should undergo medical examination in Edirne before boarding the train. For those who would come by ship, since there were mostly no military physicians at the ports, the concerned medical examination should be conducted by the physicians of the municipality and quarantine undergone whilst embarking the vessels.[312]

During the struggle against cholera, in addition to the practices of quarantine and cordon in transport operations, some health precautions were also taken in the city to stop the spread of the disease. Initially, after the disease became an epidemic, a panel under the presidency of Tevfik Rüstü Aras, Deputy General Director of the High Quarantine Assembly (*Meclis-i Umur-i Sihhiye Müdürü Umumisi Muavini*) visited Izmir and as a result of the inspections made, it was discovered that the cholera did not spread via water but through physical contact and that its source was

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[311] DH.ID., 176 / 12 (1331.N.02- August 5, 1913)

[312] DH.ID., 157 / 2., “n.d.”

Selanik.[313] After determining the source of the disease, the next step was to plan the precautions to be taken for the struggle and to decide on which authorities would implement them. As in each city, a Medical Office was established in order to protect Izmir and the surrounding areas from epidemic diseases and a branch, affiliated with this office was formed under the name of the Sanitary Intelligence Office (*Sihhiye Istihbarat Kalemi*). The duty of the concerned branch was to communicate to the Medical Office information on the daily health condition of the city.[314] This procedure was highly important since it kept the chance to follow up the course and enlargement zone of the disease. Since the sanitation of the areas in which cholera cases had been determined was imperative in the struggle against the disease, it was decided that disinfection stations (*tebhir pavyonlari*) and an office, which would incorporate any and all of the related equipment, should be founded. Officers in sufficient number were appointed to carry out the disinfection procedures. The conditions that these officers be literate and their ages between twenty and forty were imposed.[315]

It was believed that the participation of the public played a major role in increasing the efficiency of these health institutions. Therefore in Izmir, as in Istanbul, great efforts were made to ensure the cooperation of the public with the health organisations to gain the support of the public in the struggle against epidemic diseases and to avoid any trouble in the application of the health precautions. For this purpose, all precautions taken and applications to be made were published in the form of notices and distributed among the public and it was

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[313] Alim, p.142.

[314] ibid, p.137.

[315] ibid., p.140.

expressed that cooperation was the prerequisite in defeating the diseases. In this regard, the municipality requested that the rules of sanitation be observed more than ever due to cholera and ruled that all offices and neighbourhoods should be scavenged earlier and that lime be poured until it created a thin layer on the floor. Furthermore, it was decided that in all offices, residences and all other commercial centres, the garbage to be disposed should be deporited in a covered container and put into the dust-cart of the municipality. Some deterrent applications were put into practice in order to ensure that the precautions taken were observed. The most remarkable deterrent practice was to mark the doors of those who threw away their garbage in the streets or drained their sewage away and therefore to expose them to all. Another precaution applied by the municipality was not to allow crowds to be formed in public places like hotels, inns, restaurants, tea or coffee houses and bakeries and to ensure that the rules of sanitation were applied therein.[316]

Cholera reached its highest peak in July and August 1913. In accordance with the records of the quarantine, 385 persons died in Izmir in July due to epidemic diseases. Thirty-six of them passed away because of cholera. This number increased to eighty-one in August. Other epidemic diseases like smallpox and typhoid fever were also significant besides cholera. Upon the increase in the rate of new cases of cholera, a hospital in the city centre, which was known as the European Hospital (*Frenk Hastanesi*), was turned into a cholera hospital. Furthermore, since the disease spread, mobile hospitals, mobile physicians and junior sanitary officers to assist them were also commissioned. The mobile hospitals, which were designed to treat the patients on location, were planned to be comprised of 40-50 beds. Bedsteads and tents were ordered from Europe for the physicians who would serve in these

[316] ibid., p.139.

hospitals. The money needed for this organisation in the amount of 200-250 lira was covered from donation made by an Indian Muslim through the British Consul.[317] The struggles resulted in a positive change. The disease started to lose momentum at the end of September and disappeared entirely by October 3, 1913.

Edirne Defence and Epidemic Diseases

Before the Balkan Wars, the Ottoman Empire held three regions on the European continent, Thrace, Macedonia and Albania. These provinces were divided into the cities of Edirne, Selanik, Manastir, Yanya, Iskodra and Kosovo. The most important city that kept the Sublime Porte in Thrace was Edirne. Founded at the location where Meriç, Arda and Tunca rivers intersect, the city was supported militarily with important defence lines. The city had been besieged many times since 1803, but had never been captured since it was well fortified.[318] The number of inhabitants of the city was 76,000 in 1912 and the population included Muslim-Turks, Greeks, Bulgarians, Albanians, Armenians, Jews and Gypsies.[319]

During the mobilisation period that started with the Balkan Wars, since the territorial roads of the Ottoman Empire were not in a good condition, the supply of the Eastern and Western Armies was attempted by using the railway line of Istanbul-Kuleliburgaz- Karaagaç- Filibe- Sofya. Edirne, situated on this line, tried to make use of these supply services far as possible. However, the transportation could not be made at the desired level since the line was a single way and railway engines and

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[317] ibid., p. 147.

[318] Andonyan, p.73.

[319] Hall, p. 38.

cars were scarce. Therefore, after the war started and especially under siege, the city experienced many difficulties due to these deficiencies.

Since at the beginning of the war, it was estimated that Bulgaria would attack from the direction of Edirne, the army took up its position accordingly. As known from previous wars, Edirne was the first defence line of Istanbul. Furthermore, the railway, which would facilitate the advance on Istanbul could only be captured after the city fell. Therefore, it was reckoned that the Bulgarian army had prepared their war plans in this way. But the assault that started instead from Kirkkilise stunned the units and the Eastern Army, at a complete loss, retreated in a haphazard manner. After the defeat of Kirklareli, the Kuleliburgaz railway bridge was captured by the Bulgarians on October 30, cutting the railway communications with the Eastern Thrace.[320] As of this date, Edirne, since the Ottoman forces had also retreated, and it had lost all of its supply contact and communications with Istanbul, had to confront the Bulgarians alone. Within a very short time like two months after the war started, almost all of the Ottoman Europe was lost. Only Iskodra, Yanya and Edirne remained under the control of the Ottomans in December.

The Bulgarian army attacked Edirne on February 9, 1913 under the command of General Ivanof. The Turkish units, under the command of Sükrü Pasha, showed great resilience. During the siege, Edirne on one side struggled against the heavy artillery fire of the Bulgarian units and on the other hand, attempted to cope with starvation and epidemic diseases, which had appeared in the city. Starvation was inevitable due to negative events that had taken place before the war. One such event was an earthquake that hit Gallipoli and Tekfurdagi (Tekirdag) both within the

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[320] *TSK, Osmanli Devri – Balkan Harbi (1912-1913) Edirne Kalesi Etrafindaki Muhasaralar*, vol. 2, part. 3 (Ankara: Genelkurmay yayinlari, 1980), pp.466 – 467.

regional borders of Edirne, in August 1912, left the inhabitants of the area defenceless. The 10,000 troops deployed in the area had been left without food and the military buildings had been damaged. The food supply and financial aid made by the state pro rata the sources available had not been completed before the Balkan Wars started, which constituted a great disadvantage for the preparation of Thrace.[321]

After mobilisation was declared, an announcement was made from the Commandership of Edirne castle. Those who did not have food supplies for two months and financial means to cover the same were required to leave the town immediately. Upon this order, 15,000 people left the city and were transferred to various cities in Anatolia by commissions for refugees. On November 30, (17 Tesrinisani 1328) the *Muhacirin Komisyonu* decided that refugees from Edirne and other zones of conflict should under whatever circumstances be transferred to Izmit and that the transfer should only be made to Ankara and Konya. Accordingly, refugees from Edirne would be sent to Ankara and Konya via a separate route and be settled in places prepared for them by *iskan-i muhacirin komisyonlari.*[322] Although this decision was applied, it is seen in archival documents that some of the refugees from Edirne were also settled in areas near Istanbul. In a complaint raised on November 26 (13 Tesrinisani 1328) by the Greek Patriarchate to Ministry of the Interior, it was indicated that twelve refugee families, who were suffering from cholera and who had come from Edirne, had been forcibly settled in the Greek School in Kemerburgaz Village, attached to the Küçük Çekmece District by Police Chief Sabri Efendi, that this police chief was continuously threatening Christians and that patients had been housed in empty buildings in Ayastefanos and in the Greek

[321] Mehmet Yavuz Erler, "1912 Marmara Havzasi Depremi", *Toplumsal Tarih* 35 (November 1996), p.36.

[322] BOA., DH.ID. 164-1/2 –94- (1331.R.21- March 30, 1913).

church. The Ministry communicated this issue to the Directorate of the Police Department and demanded that the concerned allegations be investigated and the relevant actions be taken.[323] As a result of the investigation made, it was understood that the school had been evacuated and allocated to the refugees referred to in the complaint upon the decision taken by the municipality council, village council and other leading persons of the community, that the complaint raised against the police chief was baseless, and that no patients had been settled in the church in Ayastefanos.[324] Similar complaints by inhabitants of the area appeared in various other documents. While some of them reflected the truth, others were baseless. These baseless complaints may have stemmed from the uneasiness the inhabitants of the area felt towards the epidemic diseases that appeared with the coming of the refugees and the problems created by the chaos.

Other than those who were sent from Edirne, thousands of other refugees came from Rumelia. Due to the comitadjis established by the Balkan States, many Muslim-Turks had started to migrate to Edirne and to Istanbul from Rumelia before the war. The migration gained speed with the war. Approximately 20,000 refugees came from Macedonia and Rumelia to Edirne before the siege.[325] Since some of the population had left the city, the Rumelian newcomers moved into the city. It was estimated that the population of the city reached 120,000.[326] The food supplies in the city from which the local inhabitants might have benefited were exhausted with the

[323] BOA., DH.ID. 164-1/2 –86,88- 13 Tesrinisani 1328 (November 26, 1912).

[324] BOA., DH.ID. 164-1/2 –158- 3 Kanunuevvel 1328 (December 16, 1912).

[325] Refugees from Rumelia, especially Macedonia, who took refuge in Edirne had to undertake a second escape when Edirne was besieged. Some of those who left Edirne went to Istanbul whereas others migrated to Anatolia. Some of them returned after Edirne was regained back in the Second Balkan War. McCarthy, p.160.

[326] The Ottoman government decided that the refugees in Edirne and its environs, who wished to migrate should be transferred to Istanbul and commissioned Emin Bey, former

new tide of refugees and starvation became a real threat even in the first stages of the siege in Edirne. [327]

As the war went on, food became almost impossible to find. In spite of the fact that the prices of basic foodstuffs were officially fixed, this made a reverse effect and the prices increased beyond expectation. The price of a tin of paraffin oil increased from forty piasters to one British pound. Just like everywhere else, the military buildings were in the dark. Only hospitals used codfish oil in candles. The price of sugar, which had been already difficult to find before the siege, increased thirty times, like that of salt. In baking bread, the weight in grams of which was decreased, sorghum and mixes of other plants were used, cheese brine water or artificial salt prepared by physicians was added in the place of salt and the necessary materials obtained from washing different kinds of solids were used. The prices of foodstuffs like olive oil, butter, milk and eggs increased. Green beans, lentils, chickpeas and rice, just like any other foodstuff, were sold at prices five times higher than they had been in peacetime. By the end of the siege, since no one was able to find food, prices became meaningless. Horses were killed and eaten by the public and soldiers. The trees and wood in vineyards and gardens were ripped out and used as fuel for heating during the harsh conditions of winter. Poverty and starvation reached a point that depression was widespread and some committed suicide by jumping off the bridge into the river. [328]

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representative of Edirne in parliament, with this duty. Emin Bey sent many refugees from Edirne to Istanbul, even Izmir, via ships during the war. Halaçoglu, p.50.

[327] McCarthy, p.143.

[328] Özbay, p.106; McCarthy, p.157; and Zuhal Özaydin, "Balkan Savasi ve Muhasarada Edirne'de Saglik Hizmetleri", *Edirne: Serhattaki Payitaht*, ed. Emin Nedret Isli and Sabri Koz (Istanbul: Yapi Kredi Bankasi yayinlari, 1998) p.280.

Hospitals Established in Edirne

Great hardships were experienced in the area of health services during the Balkan Wars. When mobilisation was declared, the hospitals in Edirne were as follows: a military hospital with a capacity of 1000 beds, a Male Orphans (*Erkek Gureba*) Hospital with 150 beds, a women's hospital with 100 beds, and a nuns' hospital, which was under the protection of the French, with 100 beds. New hospitals were needed during the war since these could not meet the demand. The military authorities announced that they were in need of a hospital with 6,000 beds for the wounded.[329] Therefore, most of the schools in and around the city were turned into hospitals. The School for Non-Commissioned Officers in Karaagaç and part of Sen Benzil College, and in the city, the Military and Civil High School, the Trade School, the School for Training Teachers for Male Students and the Bulgarian High School were rearranged and put into service as hospitals. Furthermore, with the help of patriots in the city, especially women, a Red Crescent Hospital was established in Karaagaç. Foreign consulates also opened some facilities bearing the characteristics of hospitals. In order to increase the number of beds in the existent hospitals, the beds and bedsteads of the hotels in the city were hired and gathered together, increasing the capacity of the hospitals in Edirne to 6,000 beds.[330]

The Red Crescent Society started its preparations to establish a hospital with a capacity of 200 beds after the war was declared. Dr. Bahattin Sakir Bey, one of the members of the Society, was appointed as the delegate and sent to Edirne for this purpose. The Small School of Military Health (*Küçük Zabitan Mektebi*), located near

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[329] Özaydin, p.281.

[330] TSK, vol. 2, part. 3, p.467.

the railway station with a capacity to include 300 beds and which was allocated to the society was turned into a hospital. The needs and the health personnel of this hospital were also provided by the society. Required materials like beds and underwear, etc. were prepared in Istanbul and were loaded onto railway cars under the protection of physicians and health staff appointed by the society. However, these were unable to reach Edirne since the railway line was broken. Thereupon, an allocation of 2,000 liras was sent to Dr. Bahattin Sakir Bey with a policy of Ottoman Bank to be spent on disbursements of the hospital and the authorisation to appoint physicians and health staff was also given to him. No detailed reports are available with regards to the condition of the hospital; nevertheless, some information can be found from the wireless and telegram records.

Dr. Bahattin Sakir Bey, in a telegram dispatched on October 30, 1912 (17 Tesrinievvel 1328) indicated that he had satisfied the needs of the hospital partially with donations and partially by purchasing the needed items and further stated that he had found some domestic help who would volunteer as nuns, clerks, cooks and janitor; therefore the hospital was providing services in a regular manner. In a telegram of November 30, he reported that approximately 650 wounded had been brought to the hospital to date, that thirty of these had died and 240 of them were still inpatients, whereas the remaining recovered. Furthermore, he stated that the hospital had 1800 lira in cash and supplies. In a telegram he sent on December 23 (10 Kanunuevvel 1328), he reported that the number of patients in the hospital was 113, that 19 of them were under going treatment, that he hoped that all of them, with the exception of five to ten, would recover within fifteen days: In a telegram of February 13 (31 Kanunuisani 1328), he stated that even if the environs of the hospital came under gun fire, safe places that could shelter 200 patients had been built. In a

telegram of March 15, he indicated that the hospital had 300 liras for provisions and medicine, that the health of 243 patients in the hospital was good and that 10,350 cotton shirts had been prepared and distributed by the Commission for Winter Presents (*Hediye-i Sitaiyye Komisyonu*) for the winter upon participation of the Red Crescent Society.[331]

After the establishment and enlargement of the hospitals, a "mixed hygiene commission" (*karma hifzissihha komisyonu*) was formed to regulate their management. Dr. Rifat Osman[332] was appointed as its president.[333] Meanwhile, serious deficiencies were being experienced in the health staff working in the hospitals and medical equipment to be used because the civil physicians, pharmacists, dentists and the assistant staff of twenty-eight commissioned by the Red Crescent Society to work in the Edirne Hospital were not enough to satisfy the need.[334] Furthermore, pharmaceutical stocks were not made with due diligence. In spite of the fact that all of the stock of the pharmacies within the city had been confiscated, needs could not be met and the patients were unable to find the needed medicines. These difficulties increased considerably with the siege. Although, the Red Crescent Society wanted to send some supplies to the besieged city, this attempt could not be finalised since Bulgaria did not give the permission. The Society, seeking new solutions, applied to the Red Cross Society and requested that a sanitary

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[331] *Year Book*, pp.110-120.

[332] Rifat Osman (1874-1933). One of the first Turkish radiologists. He was an important radiology expert trained by German Prof. Dr. Robert Rieder, the founder of radiology in Turkey. Rifat Osman Bey was the founder of the radiology departments in Selanik, Manastir and Edirne Military Hospitals. He retired when he was the physician-in-chief of Edirne Central Military Hospital in 1919. Ratip Kazancigil, "Ölümünün 60. Yildönümünde Dr. Rifat Osman Bey ve Edirne," *I. Edirne Tip Günleri Bildirileri 3-4 Ekim 2001*, ed. Ender Bilar, (Edirne: Trakya Üniversitesi Rektörlügü Yayinlari, 2001), p. XI.

[333] Özbay, p. 106.

[334] Akgün and Ulugtekin, p.126.

commission be sent to the city, provided that all of the relevant disbursements would be to the account of the Red Crescent Society. Despite all efforts, the aid that should have been extended in the name of humanity was hindered by the influence of politics.[335]

Epidemic Diseases Seen in Edirne

Another problem Edirne faced during the Balkan Wars was epidemic diseases. The crowding and starvation experienced with coming of the refugees, when combined with the harsh winter conditions provided the basis for the spread of epidemic diseases. As of the second half of November, typhoid fever, cholera and typhus began to be seen in epidemic form among the plain soldiers and staff. Upon appearance of the epidemic diseases, the Central Hospital, known as the Greek School, began to be used for the treatment of epidemic diseases. Prisoner physicians were entrusted with the duty of attending more than 1,200 patients in this hospital. This hospital, enlarged with wooden huts attached to the centre, was supported with four more German huts of the Duquer system, which were properly built upon the need. Beginning from November 1912; important physicians such as Prof. Dr. Mehmet Refi Bey, Abdülkadir Lütfi (Noyan)[336] and Nazim Sakir[337] were appointed

[335] ibid., p.109.

[336] Abdülkadir Lütfi (Noyan) (1886 - ?). Graduating from Kuleli Military Medical High School (*Kuleli Askeri Tibbiye Lisesi*) in 1910, he attended the Military School of Medicine (*Mekteb-i Tibbiye-i Askeriye*) and after he was chosen to be an assistant in the Gülhane Clinic of Internal Diseases. He was commissioned in the struggle against cholera in *Serviburnu Tahaffuzhanesi* in 1911, and in 1912 he was appointed to *Ayastefanos* Hospital for Contagious Diseases in Ayastefanos (*Emraz-i Sariye Hastanesi*). He conducted successful work against cholera, dysentery and other epidemic diseases seen during wars. Bacteriologist Abdülkadir Bey was appointed as the chief assistant in Sivas in 1913 and was appointed as the associate of Dr. Mayer, who was giving lectures on military hygiene. He participated the struggle against epidemic diseases seen in Dimetoka and Edirne and worked in the struggle against typhus in Kandira in 1915. During the First World War, he fought against the epidemic diseases seen in Çanakkale; he also acted as the hygiene consultant and Sanitary Chief of the First and Sixth Corps and served in Sixth Army. Abdülkadir Bey went to Ankara

to this hospital. With the efforts of these persons and the assistance of Gülhane, a clinic laboratory was established in one of the huts. In this way, it was possible to make bacteriological analyses, which revealed that those suffering from diarrhoea were in fact suffering from dysentery and their treatment was arranged accordingly. Health advice was prepared for the public and soldiers and was distributed. The physicians disinfected all of the tents with slated lime in order to control the spread. Despite all efforts, ninety-one of 7,000 patients lost their lives.[338]

Meanwhile, the Ottoman Empire, which was defeated on all fronts during the war, declared cease-fire with the Balkan nations on March 3, 1912. Since the conditions of the agreement were unjust, aid could not be transferred to Edirne at the desired levels during the armistice in accordance with the provisions of the cease-fire since Turkey was divested of the right to provide supplies to three fortified cities – Edirne, Yanya, Iskodra – that were under siege and faced with the threats of starvation and epidemic diseases. However, Bulgaria obtained the right to provide supplies to all of its forces in Çatalca and Thrace via the Edirne railway and the Black Sea.[339] Nor could a big attack be made from Çatalca or Gallipoli to break the

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in order to join the national independence movement in 1921 and worked as the Physician in Chief of Ankara *Menzil Kumandanligi* (Commandership of Ankara Logistic Provisioning Troop). Afterwards, he was appointed as a professor in Clinic of Internal Diseases in Gülhane Military Hospital and he became the president of the Ministry of National Defense, Sanitary Department (*Milli Müdafaa Vekaleti Sihhiye Dairesi*) in 1943. He resigned from his military duties in 1947 and became the dean of Ankara Faculty of Medicine. He retired from this position upon his own will. Unat, pp.114-116.

[337] Nazim Sakir (1888-1969) Graduated from the Military School in 1910. After working as a practioneer for a year in Gülhane, he became a specialist in the Psychiatry and Neurology Clinic and participated in the Trablusgarp and Balkan Wars. He fought on the Caucasian Front in First World War. During the national independence movement era, he went to Anatolia and acted as the Physician-in-Chief at Ankara Cebeci Hospital and as specialist in Army Psychiatry and Neurology. He returned to his duty in Gülhane in 1923 and afterwards was appointed as the Physician-in-Chief and Director of Ankara Gülhane Hospital. After leaving the armed forces, he became the director of the Istanbul *Tibbi Adli Müessesi* (Istanbul Institute of Forensic Medicine). Fethi Erden, *Türk Hekimleri Biyografisi* (Istanbul: Çituri Biraderler basimevi, 1948), p. 211.

[338] Özbay, p.108.

[339] Ernest Christian Helmreich, *The Diplomacy of the Balkan Wars 1912-1913* (Cambridge: Harvard University Press, 1938), p. 203 ; Andonyan, p.497.

siege. Thus, in accordance with the conditions of the armistice, Edirne could only receive the limited health services given by Dr. Dervis Bey,[340] Physician in Chief of Darülfünun Hospital.[341]

About two weeks after the armistice (December 17, 1912), a conference was held in London for the peace negotiations. The proposals presented by the Balkan alliance to the Sublime Porte could not be changed despite the efforts of Grand Vizier Kamil Pasha[342] and the negotiations were ceased. One of the topics on which the severest discussions were made was leaving Edirne to Bulgarians. Since the government did not wish to assume such a responsibility all by itself, the issue was passed to be discussed in the Council of Sultanic Rule (*Saltanat Surasi*) and a decision was adopted there, according to which Edirne would be left to Bulgaria on the condition that some religious and social rights would be granted to the Turkish inhabitants.[343] Officers who were members of the CUP, especially Enver Bey, [344] did

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[340] Asaf Dervis Pasha (1868 – 1928). An expert in gynaecology. He worked as a military physician during the Balkan Wars and the First World War. He worked as a professor at the Faculty of Medicine for a long time and tried to renew the gynaecology department. Asaf Dervis Pasha introduced gynaecology treatment, the struggle against the genital system infections and genital medicine to Turkey. I.A. Gövsa, *Türk Meshurlari Ansiklopedisi* (Istanbul: Yedigün Nesriyat), p. 46.

[341] Akgün, p.109.

[342] Kamil Pasha (1832 – 1913). Ottoman statesman. After graduating from the Military Academy in Egypt, he came to Istanbul and assumed civil positions and acted as governor of Halep and Kosovo and the Minister of Foundations (*Evkaf Naziri)*. He was elected as the grand vizier four times in 1885-1891, 1895 (1 month), 1908-1909 and 1913 (two months). After 1891 he lost his reputation due to his close affinity with the British. Due to the support given to him by the British, he was known as a supporter of freedom and liberalism among the members of the CUP. His policies that were in favour of the British after the coup d'etat, the priviliges he granted to the big European states and his relationship with some of the supporters of the Entente States resulted in conflicts between him and the CUP. After leaving the position of grand vizier for the last time, he went to Cyprus and passed away there in 1913. *Belgelerle Kamil Pasa ve Said Pasa'nin Anilari*, ed. Gül Çagali Güven (Istanbul: Arba Yayinlari, 1991).

[343] Türkgeldi, pp. 97-98.

[344] Enver Pasha (1881 – 1922). One of the leading members of the CUP after 1906. One of the commanders of 2nd Constitutional Regime in 1908. He became the leader of the military wing of the CUP after being promoted to general and assumed the position of Minister of War. He rearranged the Ottoman Army with the help of the Germans, with whom he had close relationships. He worked actively to make the Ottoman State enter the war. When the Ottomans were defeated at the end of the

not accept this decision therefore, they invaded Sublime Port (Bab-i Ali) on January 23, 1913 and killed Nazim Pasha, Minister of War, and some military officers. After this attack, Grand Vizier Kamil Pasha resigned and Mahmut Sevket Pasha[345] became the prime minister in his stead and therefore a CUP government was founded.[346]

Ahmet Izzet Pasha, the Deputy High Commander of the newly established government, terminated the Ottoman-Bulgarian cease-fire on January 30 and started the war again in the first days of February on the line of Çatalca in order to regain Edirne. Therefore Bulgarian and Turkish armies clashed for the second time on the Çatalca line. The Bulgarians started the battle in Çatalca simultaneously with the attack on Edirne. They were unable to move forward other than taking up a couple of small positions. Upon the defeat in Çatalca, the Bulgarian General Staff ordered to push the siege of Edirne. At this moment, the news that Yanya had surrendered to

Bulgarians encouraged them to push harder. The Bulgarian armies, with the support of the Serbians, heavily bombarded Edirne beginning from February 13. The Turkish armies made an unsuccessful attempt of landing at Sarköy on February 8 in

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First World War, he escaped to Germany. Afterwards, he tried to organise a Muslim revolutionist movement to come back to Anatolia with the support of the Russians. After failing in this attempt, Enver Bey, who was then a strong pan-Turkist, went to central Asia again with the support of Soviet Russia. Nevertheless, he fought against the Russian at the fronts of the Turkish nationalists and was killed in a skirmish against the Red Army. Eric Jan Zürcher, *Modern Türkiye'nin Tarihi*, trans. Yasemin Saner Gönen (Istanbul: Iletisim yayinlari, 1999), p. 491.

[345] Mahmut Sevket Pasha (1856-1913). Graduated from the Imperial Academy of General Service (*Mekteb-i Erkan-i Harbiye-i Sahane*) in 1892. He assumed many positions in different parts of the Sublime Porte and abroad. He was appointed as the Governor of Kosovo in 1905. He was appointed as the Commander of the 3rd Army, the headquarters of which were in Selanik and afterwards, the General Director of the Cities of Rumelia, as an additional post to his former duty. He became famous all of a sudden as the commander of the Action Army (*Hareket Ordusu*) that came to Istanbul to suppres the March 31 Events. He played a major role in the dethronment of Abdülhamit. He assumed the position of Harbiye Naziri in the Hakki Pasha Cabinet, established in 1909. He became the Grand Vizier and the Minister of War after the attack on the Bab-i Ali. Assasinated on June 11, 1913. *Mahmut Sevket Pasa'nin Günlügü* (Istanbul: Arba Yayinlari, 1988).

[346]Türkgeldi, pp.77-82.

order to save the city.[347] Even though all hopes of assistance faded with this operation, Edirne resisted this siege for more than a month. When March started, the food supplies of the city were almost exhausted, epidemic diseases were rampant and the military forces weakened. The Bulgarian army continued the bombardment of the city for two days starting from March 24 and the Ottoman forces, under the command of Sükrü Pasha, ended the resistance. Thus, Edirne surrendered to the Bulgarian army, which was under the commandership of General Ivanof on March 26, 1913.[348]

With the invasion, the condition of the city worsened. The Bulgarians, who invaded the city, gathered the captive staff in the protected emplacement of Hidirlik and sent them to Karaagaç and Sofia, whereas the plain soldiers were imprisoned on a grovy island, known as Sarayiçi, on the river Tunca and abandoned to die horribly in the marshes. The soldiers were driven to peel the bark off the trees and eat it in order to suppress the feeling of hunger.[349] Justin McCarthy writes that the observers from West Europe in the city witnessed what these soldiers experienced on this small island where they were stuck and that they were most impressed by this incident:

> "The thing that impressed the West Europeans the most was that the barks of the trees on the island where the prisoners were kept were stripped (gnawed or torn away and eaten) up to the last point of reach. A grove made up of trees that were stripped to the last point of reach was giving quite an idea of the hunger these people experienced."[350]

It was reported that twenty to thirty died every day from starvation or diseases and that the corpses were being piled up. The putrefaction and rotting of the

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[347] Dervis Kuntman, Bir Doktorun Harp ve Memleket Hatiralari, *Armed Forces Magazine* no. 215, Additional Issue I (September 1965), pp.45-46.

[348] Hall, pp. 86-91; Gerolymatos, p.214.

[349] Özbay, pp.106-107.

[350] McCarthy, p.144.

uncovered corpses posed a great threat. In addition, killing by the Bulgarians within the city continued and the corpses were being thrown into the streets, fields and rivers. Some of the corpses were buried in holes dug by prisoners in a disorderly fashion. The road to Karaagaç was full of corpses. With the appearance of cholera, the situation became even more serious. In a diary kept in French by A. Geron, headmistress of the Alliance Israelite Universelle School in Edirne, it was indicated that the sanitation of the city was in a terrible state, that scarlet fever, cholera and dysentery had begun to go around, that the children were drinking the water of the Arda River, which was full of corpses, and that the administrative panel of the school had to be immediately informed of the situation and the necessary precautions had to be taken.[351] On March 1, 1913, Geron wrote that,

> "the hospitals are swarming with the dead bodies of patients due to scarcity of medicine and proper treatment. Scurvy, pneumonia, lack of physiological strength and cholera are widespread… hundreds might have been saved with a more prudent hospital management. Alas, physicians who were caught unprepared used ordinary cotton to dress the wounds and prepared their cotton gauzes at that instance. Disinfectants were exhausted as of the first battle and the government had to apply to the poorly supplied private pharmacies."[352]

As specified by Özbay, Kiryakof, the Physician in Chief of the Edirne Commandership of the Position of Edirne (*Mevki Kumandanligi*) visited the wards with a couple of Bulgarian physicians and discharged about seventy patients who were in convalescence. These soldiers, while being transferred to Bulgaria on the Tunca, were murdered by the guards under volley fire under the pretence that they were weak and disabled and were walking too slowly.[353]

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[351] Rifat N. Bali, "Edirne Muhasarasi SirasindaTutulmus Bir Günlük, " *Tarih ve Toplum* no. 32,190 (Ekim 1999), p.43.

[352] ibid., p.29.

[353] Özbay, p.107.

On May 30, 1913, the Treaty of London was signed between the Sublime Porte and the Balkan Alliance. Hence, the first part of the war was completed. The Ottoman Empire lost all of its territory in Europe in this war and the borders receded to the line of Midye-Enez in Thrace. Furthermore, Edirne was abandoned to the Bulgarians and the future of the Aegean Islands was left to be decided by the great powers.[354] However, the borders determined at the end of the war satisfied none of the Balkan States. A disagreement arose in the Alliance since the other states thought that the Bulgarians had obtained more than it deserved. Bulgaria, seeing that the lands it captured were in danger, all of a sudden attacked Serbia and Greece on June 29-30, whereas Romania started to advance on the lands of Bulgaria and invaded Dobruca, whereupon Bulgaria had to move its forces in Edirne in that direction. In this way the second phase of the war started. The Ottoman government was anxious when the Greeks captured Dedeagaç on July 13 because the Greeks could enter Edirne any minute. Despite the opposition of the great powers, the Ottoman armies under the command of Hursit Pasha and Süleyman Sefik Pasha, moved towards Edirne on July 20 and took the city back from the Bulgarians on July 26.[355]

A week after the operation to regain Edirne back was started, a new cholera outbreak appeared among the units of the 9th Corps in Dimetoka. The other units moving towards Edirne had to avoid being infected in order to complete the operation with success. Therefore, the commander of this corps, Fahri Pasha, Major Mustafa Kemal Bey, chief of staff and Physician in Chief Neset Osman Bey[356] took

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[354] Schurman, pp.57-58.

[355] Helmreich, pp.401-406.

[356] Neset Osman (1873-1949). Graduating from the Military School of Medicine in 1897, Neset Osman Bey gave lectures in the polyclinic of internal diseases at Gülhane, fought in Balkan Wars, became the Physician-in-Chief of Gümüssuyu Hospital in 1914 and retired from this hospital in 1919. Irfan Titiz, *Gülhane Iç Hastaliklari Klinikleri Tarihi (1898-1953)* (Ankara: 1960), pp.68-69.

emergency precautions. First of all, it was decided that the tent quarters in Kuleliburgaz-Uzunköprü where the units of the corps were deployed and the river passing near Dimetoka were to be kept under cordon. All tents and toilets in the field were disinfected with lime milk. 400 patients who showed symptoms of cholera were sent to a mobile cholera hospital established in Dimetoka. The Directory of the Sanitary Office appointed Abdülkadir Lütfi (Noyan) Bey and Deputy Physician in Chief of the Corps, Tevfik Ismail (Gökçe)[357] to this hospital in order to fight the cholera there. One of the huts was turned into a bacteriology laboratory. As a result of the bacteriological analyses made, it was understood that 134 patients out of the 400 who had been transferred the hospital had caught the cholera and that cholera did not spread with water but with contact.[358] There had been cholera outbreaks in Greek and Bulgarian armies before. Turkish units that entered the quarters they abandoned in Dimetoka came in contact with the cholera microbe and were infected. As a matter of fact, cholera vaccine was started to be administered in Turkish armies after retaking of Edirne and this protected the units from the disease considerably. Nevertheless, the vaccine had not yet been administered in the 9th Corps in Dimetoka. All of the soldiers in this unit were vaccinated with the cholera vaccine prepared by Resat Riza Mustafa Bey, one of the bacteriologists of Gülhane, 2-3 times

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[357] Tevfik Ismail (Gökçe) (1891-?). Graduated from the Military School of Medicine in 1913 and joined the army to fight in the Balkan Wars. After the war, he specialised at Gülhane Hospital and started to work in internal diseases department. He was commissioned to struggle against typhus in the 3rd Army during the First World War and also he worked in Erzurum Hospital and in the Vaccine Laboratory (*Asi Darülistihzari*) of the Red Crescent Society. After the war, he became the chief assistant of internal medicine department in Gülhane Hospital. Upon the starting of the national independence movement, Tevfik Bey, who went to Anatolia, worked as bacteriologist in Cebeci Hospital, as the Director of the Vaccine Laboratory of the Sanitary Department (Sihhiye Dairesi Asi Istihzari) and Chief of Internal Diseases at Izmir Central Hospital. After leaving his military position, he worked in Heybeliada Sanatorium in 1924 and played a major role in the struggle against tuberculosis in the Tuberculosis Society. Erden, p. 103.

[358] Abdülkadir Noyan, "Vibriyon Hamillerinin ve Mutrihlerinin Kolera Salginindaki Ehemmiyeti," *Osmanli Seririyat Mecmuasi* 5, year 4 (July 1330), p. 202.

in order to prevent spread of the disease.[359] In this spread, 495 persons became sick and 167 of them lost their lives.[360]

After regaining Edirne from the Bulgarians, the city again went through bad days because of health problems. New cholera cases started to be seen among the units in Edirne on August 13, 1913. Since the weather was growing warmer and warmer, it was easier for the disease to go around. Upon the news that the disease showed its face, units carrying the same were immediately transferred out of the city and quarantined. Their contact with the other units was completely ceased. Besides this measure, some health precautions were also put into practice. Soldiers were vaccinated regularly and water and foodstuff were strictly inspected. Furthermore, general sanitation and hygiene were considered important. The toilets of the field were cleaned with antiseptics like lime and new toilets were regularly opened. It was understood how important the military medical office was after these incidents. Physicians who had been regarded as "extra military," became the most important persons in the detachments. It was deemed compulsory that the orders they issued and the reports they wrote should be put into practice by the commanders of the battalions completely and decisively.[361] Only in this way could the spread of the diseases be stopped and the losses of the army minimised.

After Edirne was won back, diseases other than cholera were seen among the units of the army. As of January, *humma-yi racia*[362] and spotted typhoid fever

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[359] Dr. Abdülkadir , "Kolera Asisi tatbikatindan Çikan Netayiç," *Osmanli Seririyat Mecmuasi* 4, year 4 (June 1330), p. 152 ; Noyan, p.20.

[360] Özbay, p.114.

[361] Kuntman, pp.53-54.

[362] *Humma-yi racia* is a dangerous epidemic disease that causes fever. It disseminates among people via lice. The disease starts with pyrexia. Loss of strength and nausea are seen. The spleen abnormally enlarges and cracks and causes internal bleeding, which lasts for a week. Afterwards,

(typhus) emerged among the units of the 2nd Corps that had been stationed in Edirne. Since the barracks were full of lice, the outbreaks aggravated. Congestion began to be seen in the city due to the fact that the soldiers crowded into the houses and the market place and the threat of spread of typhus among the public arose. The only sterilisation machine available for sanitation was circulated among the units but could not satisfy the demand. It was alleged that at least 20-30 persons caught this disease every day.[363] With the worsening of the outbreak of the disease, assistance was asked from Süleyman (Numan) Bey,[364] President of the *Harbiye Nezareti Sihhiye Dairesi*. Mayer Bey, hygiene professor at Gülhane, was commissioned for an inspection of the corps and Dr. Abdülkadir Lütfi Bey was commissioned for an inspection of the hospital and sent to Edirne accompanied by a commission on February 17. The examinations, which started at the beginning of March, continued until April 20, 1914. Typhus went through its most violent period in March. 445 persons caught this disease and 104 of them died. In April, the number of patients decreased to 227 while the deaths decreased to sixty-seven. Due to the warm weather after April, cleaning operations in the barracks and improvement efforts, the disease lost its power of influence and was completely eradicated in May.[365]

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sweating begins and the fever decreases. Almost a week later, high fever emerges again. These fits are repeated at least five times. Medicines including penicillin are used in treatment of this disease. Serafettin Magmumi, *Kamus-i Tibbi* (Misir Osmanli Matbaasi, 1328), p. 919.

[363] Özbay, p.115.

[364] Süleyman Numan (1868-1925). Appointed President of *Harbiye Nezareti Sihhiye Dairesi* on October 24, 1913 and succesfully continued his works under this position until 1919. He established a significant medical staff during the First World War and developed the struggle against epidemic diseases, especially with the widespread application of vaccine. During this period, Refik Saydam served as his assistant for five years. Saydam made use of this important experience when he acted as the Ministry of Health. Tahsin, p. 43.

[365] Noyan, pp.23-26.

The Demobilisation Procedure at the End of the War and the Health Problems

Upon the end of the war, demobilisation of the soldiers was necessary. This procedure was initiated in October 1913. It was highly probable that there were carriers of epidemic diseases within the troops since many diseases had been present during the war. It was known that, sending the soldiers home without taking protective health precautions might cause more outbreaks. Taking this fact into consideration, efforts were made to carry out the procedure of demobilisation based on a plan and in harmony with health rules.

The issue of demobilisation started to be discussed during the debates on cholera before the war ended and some proposals were made during the meeting of *Meclis-i Umur-i Sihhiye* held on November 18, 1912 (5 Tesrinisani 1328). Dr. Dalamare, the delegate of Austria proposed that in order to prevent spread of cholera from soldiers who were sick or carriers of cholera to the public, the soldiers to be demobilised first should be gathered together and kept in a place where their contact with public would be hindered then be separated into groups and medically examined. Those who were sick and arousing the suspicion of disease could be identified and secluded whereas those who were found to be healthy could be sent home. This proposal was also supported by Cenap Sahabettin Bey, General Director of the Assembly, and it was further offered that soldiers who would be demobilised should not be allowed to enter Istanbul and that the demobilisation procedure should be carried out at a distant location, for example in Ayastefanos. Cenap Sahabettin Bey requested that the precautions to be applied in this regard should be arranged in a way as to eliminate all negative points that could arise both before and during demobilisation.

The Minister of Foreign Affairs, Gabriyel Nuradunkyan Efendi, who was also present in the meeting, though, found these proposals appropriate, expressed his hesitations on gathering the soldiers in a location out of Istanbul. He noted that it would not be suitable to keep the soldiers who would be gathered together for demobilisation waiting in the open countryside in winter and asked whether it was possible to accommodate them in tents. The Assembly answered that the soldiers could be quarantined for a period of fifteen days in tents to be provided by the armed forces and indicated that it was further possible to transfer the sick to the field hospitals via vessels.[366]

After the war ended, some precautions were taken for the demobilisation procedure based on the aforementioned proposals and were started to be applied immediately. First of all, a commission was established by the Ministry of War in order to prevent the spread of cholera again during the transport of soldiers and prisoners of war from the battlefield. The concerned commission was under the presidency of Staff Colonel Yusuf Ziya Bey and comprised of Dr. Riza Tevfik Bey, delegate of the Office of General Health (*Daire-i Umur-u Sihhiye*) and two military physicians.[367] As a result of negotiations held for a week, the precautions to be applied were determined via taking the conditions of the country into account. The precautions, prepared as a pamphlet of six articles under the title of "Disinfection, Sanitation and Veterinary Precautions" (*Tebhirat, Tedabir-i Sihhiye ve Baytariye*) were sent to the concerned authorities and started to be applied forthwith.

Since, first of all, protecting the capital city against the epidemic diseases during the demobilisation was planned, it was decided that the soldiers in the

[366] MU.SIH. 13, no.47, pp.11-13.

[367] MU.SIH. 17, no. 53, p.20.

battlefield should be transferred to Anatolia from Gallipoli, without stopping at Istanbul.[368] For this purpose, a demobilisation headquarters was established near the port and environs of the mills in Gallipoli. There were four mobile sterilisation machines, six to eight bath tents and cabins for undressing-dressing and shaving where the sanitation of the soldiers would be made in the headquarters. In accordance with the plan made, all military units to be demobilised should first of all be transferred to the quarters in tents erected in the open countryside at the entrance to Gallipoli. The units gathered in the quarters were to be sent to the demobilisation headquarters under the surveillance of the physicians of the detachment and officers and be medically examined there with the help of the Central Hospital of Gallipoli, Bacteriology Laboratory. Those whose medical examination had been completed would go to the areas prepared for the sanitation procedure and be disinfected there. These procedures had to follow a definite order. Initially, the soldiers would have their hair cut and heads shaved and then have a bath in the bath tents. Their clothes would be sterilised in the sterilisation machines, during the aforementioned operations. Soldiers who came out of the bath and dressed in their clean clothes were then to be transferred to the quarters established in the wide depots of the mill and be sent to their home in ships.[369]

Abdülkadir (Noyan) Bey, chief assistant at the Gülhane Clinic of Internal Diseases, was commissioned to conduct bacteriological analyses during the demobilisation procedure. Hüsamettin Bey, bacteriologist of Gallipoli Hospital, also made great contributions to the laboratory studies.[370]

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[368] Özbay, p.116.

[369] Noyan, p.22.

[370] Özbay, p.116.

It was thought that it would be proper to conduct the demobilisation via ships and some arrangements were made in this regard. It was decided that vessels that had been previously used for the transportation of soldiers and refugees should be used for the demobilisation. Ships that belonged to or had been hired from foreign states were present among these. In accordance with the precautions taken, disinfection operations were to be conducted at the ports where the soldiers, personal belongings and animals would disembark the vessels. Therefore, a "sanitary commission" would be sent to each port or embarkment station, according to its priority and importance. The concerned sanitary commissions would be made up of military physicians and would work under the orders of the central command.[371]

During the transfer procedures, the quarantine units and cordons where the sanitation and medical inspections of the servicemen would be realised were also put into service. One or two physicians would be present on each of the transport ships, in case anyone was to become ill during the voyage, this person would undergo medical examination and be isolated immediately and the concerned ship would berth at either, the quarantine unit of Klazumen, Beirut, Tuzla, Serviburnu or Sinop, according to her route, and be quarantined there. This procedure was to be applied if there was room in the quarantine unit. If the quarantine unit was full, then the vessel would berth at the nearest port and enter the cordons formed there. In the cordons to be formed in or environs the ports, the sick soldiers and those who arose the suspicion of disease would be isolated and those who were healthy, after undergoing medical surveillance of at least five days,[372] would be given certificates of entrance

[371] MU.SIH. 17, no. 53, p.20.

[372] BOA., DH.ID., 165 / 30 (1331.Za.26- October 27,1913).

(*temiz pratika*) and allowed to go home.[373]

In addition to the demobilisation precautions, the issue of the route of the transport was also very important. The *Meclis-i Umur-i Sihhiye* was of the opinion that the demobilisation should be made via the Marmara and Black Seas. In this way, the disinfection operations of the soldiers who would be sent to their hometowns would be made in the quarantine units of Tuzla and Manastiragzi and in huts of adequate number to be built in the surrounding areas. It was decided that a separate commission should be established within the assembly for the construction of the concerned huts and it was ruled that German huts of the Dequer system should be brought.[374]

The excessive number of soldiers to be demobilised necessitated the usage of the Mediterranean route. Soldiers who had been transferred to Istanbul during the war were also waiting to be sent home. Therefore, some of them marched from Istanbul for their demobilisation procedure. The route to be followed by the ships and the quarantine units they should call were indicated in the precautions. Accordingly, vessels sailing along the Marmara coasts would call at the Tuzla *Tahaffuzhanesi*, those sailing to the Black Sea would either call at the quarantine unit of Manastiragzi and Sinop or Sormuna based on their choices. Those sailing to the Mediterranean should call at the quarantine unit of Klazumen or Beirut and should undergo disinfection and bacteriological inspection under the surveillance of the physicians of the quarantine or of the vessel.[375]

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[373] MU.SIH. 17, no. 53, pp.20-21.

[374] MU.SIH. 13, no. 49, pp.17-18.

[375] MU.SIH. 17, no. 55, p.5.

Many difficulties were encountered during the demobilisation. Upon the transfer of the soldiers at the battlefield, congestion was inevitable at Gallipoli and the surrounding areas. Furthermore, due to deficiencies of transportation means, troubles continued during the transfer. Sanitation and other health problems were experienced in the crowded ships and the complaints or warnings of the military physicians on board the ships as observers were disregarded by the authorities. Therefore, the miserable conditions that the soldiers were in continued throughout the procedure. For example, more than 7,000 servicemen were crowded onto the ship *On Temmuz*, which had a capacity of four thousand persons, and warnings of two military physicians who wished to declare that such an arrangement would cause many health problems were disregarded.[376] Similarly, 900 soldiers boarded the ship *Plevne*, which had a capacity of 300 and departed from Istanbul. The soldiers, who were supposed to go to Bandirma sailed from Istanbul to Tuzla twice under these conditions. This situation was included in the agenda of one of the meetings of the High Quarantine Assembly and the Ministry of War announced a warning which emphasised the threats that staying in such a crowded vessel for long periods posed to the health of the soldiers and indicated that the capacities of the ships should not be exceeded.[377] Also, in a letter sent by the *Sihhiye-i Müdüriyet-i Umumisi* to *Sihhiye Dairesi* on October 27, 1913 (14 Tesrinievvel 1329), it was indicated that cholera had been seen in various points of Edirne during the siege, that this disease had reappeared after the city had been regained by spreading from the Bulgarians, despite the fact that the disease had been destroyed with the precautions taken, since the

[376] Özbay, p.116.

[377] MU.SIH. 17, no. 57, pp.5-6.

soldiers carrying cholera were transported in overcrowded vessels, the disease showed its face in some of the military detachments.[378]

The crowding in the transport ships also caused problems in the *tahaffuzhane*. The soldiers, brought in large groups, had to wait for a long time for the procedures. Furthermore, since the ports of the quarantine unit of Manastiragzi and Tuzla were in unsheltered positions, ships were unable to anchor in these ports in bad weather and be sent to other quarantine units. Congestion increased due to the fact that the vessels were sent to other *tahaffuzhanes*. In a decision adopted by the High Quarantine Assembly, it was ruled that if soldiers could not be sent to the quarantine unit of Manastiragzi due to bad weather conditions, they should be sent to Selviburnu and undergo disinfection under the surveillance of one of the quarantine physicians. This application however, served no purpose, but only increased the crowding in some quarantine units. As such, in a declaration made by the quarantine unit of Serviburnu, it was indicated that even though 800-1,000 persons were undergoing disinfection every day, the facilities were still far from being able to meet the demand, that the soldiers who were sent to Manastiragzi due to crowding disembarked the vessels with great difficulties, and that the disinfection procedures of these soldiers had to be postponed.[379] In response to this declaration, the High Quarantine Assembly hired two tugboats and a couple of barges and sent them to Manastiragzi and to Tuzla in order to facilitate loading and unloading of the soldiers who would undergo disinfection.[380] In addition, a quarantine physician and a guard were appointed by the Municipality of Istanbul to the quarantine unit of Serviburnu in order to attend to the

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[378] BOA., DH. ID., 165 / 30 (1331.Za.26- October 27, 1913).

[379] MU.SIH. 13, no. 52, p.14.

[380] MU.SIH. 17, no. 55, p.7.

disinfection. And an allocation was reserved from the allotment of cholera in order to cover the disbursements needed.[381]

In another decision made with regards to the demobilisation, it was requested that the *Ordu Sihhiye Müfettisi* and *Menzil Müfettisi* should convene and discuss the sterilisation machines to be sent to Gallipoli, Eregli and Tekfurdagi and the corpses to be buried and that their number should be determined. It was decided that animals should also be examined by veterinarians and those with diseases should be separated and treated.[382]

As a result of these great efforts, demobilisation was completed within a short time like twenty days and the soldiers were sent home by ships. The vaccination program in the army prevented serious spreads of epidemic diseases during the process. The cholera vaccine was first administered in the Ottoman Empire during the Balkan Wars. As expressed by Abdülkadir Noyan, one of the physicians of Gülhane Hospital, "cholera vaccine had been administered by different countries during many outbreaks but such a widespread application of vaccine during a war was first made by the Ottomans."[383] As alleged by Kemal Özbay, the number of cholera vaccines administered to soldiers during the epidemic and in the following days far exceeded the number of all vaccines administered in the armies of the world up to that date.[384]

The administration of the cholera vaccine in the army caused debate. Even the first application of this vaccine in the quarantine unit of Klazumen by the decision of

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[381] MU.SIH. 13, no. 52, p.14.

[382] MU.SIH. 17, no. 53, p.21.

[383] Dr. Abdülkadir , "Kolera Asisi tatbikatindan Çikan Netayiç," *Osmanli Seririyat Mecmuasi*, no.4, year 4 (June 1330), pp.153-154 ; Noyan, p.18.

[384] Özbay, p.117.

Cenap Sahabettin, without receiving the approval of the High Quarantine Assembly, created sharp reactions. Opinions on the cholera vaccine were first expressed during a meeting of the High Quarantine Assembly on November 18, 1912 (5 Tesrinisani 1328) when the delegate of the Austria-Hungary Empire emphasised the necessity of administering the cholera vaccine to the soldiers and refugees in order prevent the spread of this disease. Upon this proposal, the Minister of Health requested that this issue should be clarified and he wanted to know if the cholera vaccine was available in Istanbul. In the explanation made, it was indicated that this vaccine had first been applied in India, Japan and lastly in Russia in 1911 and the results attained had been positive. Akil Muhtar Bey stated that the cholera vaccine was not a therapeutic measure, but a protective measure and further indicated that the vaccine could only bring favourable results if administered before catching the disease. Vaccination after catching the disease would be useless. Upon this explanation, the Assembly decided that discussion of the precautions that would prevent the spread of the disease should have priority and therefore the issue of vaccination should be set aside for the moment.[385]

The issue of vaccination was discussed in another meeting of the the High Quarantine Assembly held on a date when the demobilisation had just begun, nevertheless, the authorities did not give it great attention. The news that those waiting in the quarantine in the quarantine unit of Klazumen had been vaccinated from a telegram on the demobilisation procedures received sharp reactions from the Assembly since no such decision had been made by the Assembly. The main criticism was that the vaccine could be dangerous since it was still in the testing phase. Furthermore, it should have been administered in quarantine units with more

[385] MU.SIH. 13, no. 47, p.7.

favourable conditions and by more capable persons. The general director of the Assembly, who was responsible from the administration of the vaccine defended the procedure by stating that the vaccinations had been applied upon an older decision of the Assembly, that the person who had administered the vaccine, Dr. Florin, was an expert who had graduated from a faculty of medicine in France, that positive results had been attained from the vaccines applied until that time and that no one could wait for the cholera vaccine for two centuries just as they had waited for the smallpox vaccine.[386] All of these opinions suggest us that vaccine was not regarded as a treatment method. Nevertheless, the vaccinations of soldiers began soon after these discussions after successful results had been attained from the previous applications. In a letter sent by the *Sihhiye Meclisi* and the Ministry of War to the quarantine unit of Kavak, it was asked whether the cholera vaccine had been administered to the soldiers who were being transferred to their hometowns and whether the cholera epidemic that had emerged had spread from those who had been vaccinated or those who had not been vaccinated.[387]

Abdülkadir (Noyan) Bey, who was commissioned for the vaccination of 31st and 32nd divisions sent to Gallipoli during the demobilisation, reported that the units had contracted cholera before arriving in Gallipoli since after receiving the order to move forward, the soldiers had passed through neighbourhoods where cholera had been seen. During the medical examinations made at the Gallipoli Bacteriology Laboratory, the disease was positively identified. The soldiers were immediately vaccinated and afterwards serious decreases in the number of new cases and of fatalities were observed. As a result, though the cholera vaccine did not destroy the

[386] MU.SIH. 17, no. 45, p.11.

[387] MU.SIH. 13, no. 50, p.16.

disease entirely, it prevented its spread and decreased the number of deaths. If the reports of the military detachments in which the vaccine was administered are combined, a definite idea on the results of the vaccine can be obtained. As claimed by Noyan, if the vaccination had not been applied during the demobilisation, thousands of homeward bound soldiers would have spread the disease throughout Anatolia and a bigger threat could have been faced. When the advantages that the vaccine brought were taken into account, vaccination not only during the war but also of all soldiers recently enlisted and even those who had come from cities or regions where cholera had been seen would destroy the disease entirely.[388]

Even though the decision of carrying out the demobilisation through Gallipoli protected the capital city from epidemic diseases, it did not prevent its spread to Anatolia. Despite all health precautions taken, the negative incidents experienced during the transportation of soldiers caused appearance of the disease. Outbreaks were seen in many cities in Anatolia, especially in Ankara Trabzon and Van.[389]

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[388] Dr. Abdülkadir , "Kolera Asisi Tatbikatindan Çikan Netayiç," *Osmanli Seririyat Mecmuasi*, no.4 , year 4 (June 1330), p.154 ; Noyan, pp. 21-24.

[389] Özbay, p.116.

General Evaluation

The importance of the climatic conditions and hygiene for the health of the soldiers at the front and the disastrous results that epidemic diseases brought were once more acknowledged during the Balkan Wars, just as in many others. Health services both at and behind the front were severely inefficient. The basic reasons for the elevated losses were the deficiencies and the mistakes made in the organisation of health services.

As previously indicated, even though the health services of the army were planned, they were not properly prepared or implemented during the Balkan Wars. The staff and medical equipment deficiencies at the center, logistic provisioning, and field hospitals opened from the depots of Selimiye, Haydarpasa and Gümüssuyu hospitals; neither of these attempts resulted in success since the procedures were not properly followed up. Appointments were made in a disorderly fashion, the obligation to employ the practitioners in order to make up for the lack of the physicians in the units arose and it was even decided that physicians could be brought from Hungary, if needed. The confusions in the appointments made by the Medical Office could not be corrected. In some places, the number of staff was above whereas, in others below the need. It is possible to see the same chaos with regards to health equipment.

The army was unable to use its medical equipment, just as it was unable to use its weapons. Besides the difficulties experienced in supplying the equipment of medical companies and mobile hospitals, since the tools and equipment available could not be used due to lack of knowledge, many material losses were experienced. The health facilities brought from Germany by Mahmut Sevket Pasha at great

expense could not be used at the desired level. Some of the mobile hospital units were captured by the enemy before opening. The personnel of these hospitals hardly saved their lives since they did not have any information on the course of the operations. The health equipment of the cities that were abandoned to the enemy was returned to Istanbul from the ports of Selanik and Trieste before arriving to their original destinations. Most of the materials that belonged to the hospitals of the Red Crescent Society, which were destined for Lüleburgaz, Edirne, Üsküp, Iskodra and Yanya, could not reach these places and some of them were pillaged. Negative climatic conditions also complicated the supply services.[390]

Epidemic diseases were the most important of many problems that were experienced during the Balkan Wars in the area of health. The government was forced to make some health arrangements due to the fact that the disease appeared and began to spread within a short time. Nevertheless, the lack of sufficient and specialised staff who could apply these precautions, the inexistence of the organisation necessary for the implementation of the same and due to other reasons like the economic ones, severe failures were experienced in the struggle against these contagious diseases. The government had to deal with both the military problems and the deficiencies of the health organisation and to fight against epidemic diseases during the war. Since the importance of municipalities and sanitary institutions of the provinces were acknowledged besides that of the health organisations established by the state in cities and districts, new arrangements and enlargement of authorities were made in this area after the war.

[390] Özbay, pp. 92-93.

Even though the real figures are not known, it is estimated that the total loss of the Sublime Porte during this war was approximately 100,000 – 120,000.[391] It is claimed that out of this figure, 50,000 died due to wounding whereas 75,000 died due to disease.[392] This extreme loss removed one of the last remaining supports of the Ottoman Empire and accelerated the process of decline.

[391] Hall, p. 136.

[392] Edward J. Erickson, *Defeat in Detail the Ottoman Army in the Balkans, 1912-1913* (Westport; Conn: Preager, 2003), pp. 328-329.

CHAPTER II

PUBLIC HEALTH AND EPIDEMIC DISEASES DURING THE FIRST WORLD WAR

The Pre-War Period: General Situation

At the end of the Balkan Wars, Bulgaria obtained the Rodop Mountains and Western Thrace, whereas Greece obtained some parts of Epir, and Greece and Serbia shared Macedonia, which was the subject of considerable competition between them. The Novi Pazar sub-division was divided between Montenegro and Serbia and Serbia took Kosovo, which was mostly an Albanian area. At the same time, an independent Albania appeared at the end of the war. The Sublime Porte, however, lost almost all of its lands in Europe and was erased from the continent of Europe.[393] The Balkan Wars brought great demographic change to the Ottoman Empire besides the de facto dismemberment. While the borders were narrowed, the ethnic variety slowly disappeared and the Empire's structure became increasingly homogeneous. This fact would play a major role in the ensuing political and social developments and the formation of the boundaries again.

The Balkan Wars turned the boundaries of the Balkan peninsula upside down. The map changed entirely but the new boundaries satisfied neither the nations of the region nor the European states. For the Balkan states, who did not quit their dreams of enlargement since they believed that they had not yet reached their national boundaries, the struggle had not ended and the conflict of interests continued among

[393] Field Marshal Lord Carver, *The Turkish Front 1914-1918, The Campaigns at Gallipoli in Mesopotamia and in Palastine* (London: The National Army Museum Book, 2003), p. 3.

the members of the Balkan alliance. After the war, Balkan alliance was divided into two, each of which received the support of European states based on their own political interests. On one side of this grouping, there were Serbia, Montenegro, Romania and Greece, who seemed to have been on the winning side of the war due to the fact that they almost doubled their total acreages, whereas on the other side there was Bulgaria. Serbia, which came out of the war with the biggest yield, enlarged both its boundaries and its influence and chose Austria as its new enlargement target. Nevertheless, the existence of many ethnic groups within its boundaries caused instability. The Albanians in Kosovo and Bulgarian supporter societies in Macedonia became the source of civil turmoil in Serbia as of 1913. The existence of an independent Montenegro was also problematic in the area after the war. Greece, however, was thinking that it had reached its national boundaries in the Balkans and therefore determined its new enlargement targets as the Aegean Islands, Izmir and the Anatolian coast. These geographical areas were deemed the historical areas in which the Great Hellenic Empire would be established. The Balkan States in this first group were under the protection of Britain, France and Russia, which had interests in the Eastern Mediterranean and the Balkans.

Bulgaria was on the opposite side. Bulgaria, unable to make its dreams of Macedonia come true during the Balkan Wars, would see the First World War as an opportunity not to be missed. Yet since it had sustained great losses of human force and materials during the Balkan Wars, it could not enter the war until 1915. The state that Bulgaria deemed its patron was the Austrian-Hungarian Empire since the politics of Austria to dominate Serbia suited Bulgaria, which wanted to spread into Serbia in the Balkans and to establish the Ayastefanos Bulgaria (the Great Bulgaria Kingdom). Therefore, after the Balkan Wars, Bulgaria started to pursue an Austrian-sided policy

and tried to build an alliance with this state. This affiliation, which was also supported by Germany, finally determined the group in which Bulgaria would take its part during the war.

In addition to these conflicts of interest in the Balkans, the legacy of the Ottoman Empire, which was about to decline for sure, aroused the desires of both the Balkan and the European States. Their interests in the Balkans and the desire to have a share in the legacy of the Sublime Porte attracted the European powers to this region. The struggle for power that had begun in the 1870's had driven the European states into a grouping of Entente States and Central Powers. It seemed that the contradiction between Austria and Russia in Balkans, the contention between Germany and Russia over the Turkish Straits, Britain's wish to protect the Near East routes to India and the political desires of France on Syria could not be solved through diplomatic means. Taking these facts into consideration, it was no mere coincidence that the First World War started in the Balkans and that the battlefields of the Balkan Wars were also the zones of conflict in the First World War.

The incident that started the First World War was the assassination of Franz Ferdinand, the heir to the throne of Austria-Hungary by a Serbian nationalist during his visit to Saraybosna on June 28, 1914. The murder of the only heir to the Habsburg dynasty aggravated the long-standing animosity towards Serbia. Since Austria was well aware of the fact that Serbia had the support of Russia, it consulted Germany before making its move. After receiving the positive support of the Kaiser, Austria sent a severe diplomatic note of 48 hours to Serbia. The concerned note could not be accepted by an independent state.[394]

[394] A.J.P. Taylor, *The First War, an Illustrated History* (Harmondsworth, Middlesex: Penguin Books, 1966), p.16.

Serbia, which was reliant on the support of Russia, did not even give a proper reply to the ultimatum of Austria, whereupon Austria started to bomb Belgrade on July 28, 1914. Thus, the First World War, which would continue for four years, started with the declaration of war by Austria against Serbia. Russia, after these incidents, waited for a while and on July 31, announced general mobilisation. Germany, deeming this announcement as a declaration of war, declared war on Russia on August 1 and against France on August 3. Thus the war was began on three different fronts within not longer than a week: The German-French front, the Austria-Serbia front and the German-Russian front.[395]

At the beginning of the war, the Ottoman Empire declared that it would remain neutral. This decision was inevitable since a state which had just gone through the devastation of the Balkan Wars could not be expected to enter into such a struggle. Nevertheless, even if the Sublime Porte chose to remain neutral, the Near East policies of the states that had entered the war as Entante States and Central Powers prevented it to be left outside the war. The Ottoman Empire had been at the centre of the policies pursued by Germany under the leadership of Emperor Wilhelm II since 1888. The aim of Germany was to attack the Britain's routes in east India with the lands of Ottoman Empire stretching to Red Sea and Indian Ocean. For this purpose, it suggested the Berlin-Baghdad railway project, for its desire was to build a railway extending to Baghdad and to connect to the Basra Gulf.[396] During the First World War, Germany developed its relations with the Sublime Porte and tried to realise its plan to use Turkish people both as a war force and to influence the fronts to be opened in Caucasia and the Arabian Peninsula. The affiliation between these

[395] Oral Sander, *Siyasi Tarih* (Ankara: Imge Yayinlari, 1992), p.259.

[396] For detailed information see Martin Gilbert, *The First World War: A Complete History* (New York: Henry Holt and Company, 1994), pp. 6-7.

two countries since the nineteenth century facilitated the Ottoman's entrance to the war.

Germany, with these thoughts, developed its diplomatic relations with the Ottoman Empire and a comprehensive but secret military pact was signed with the Minister of War, Enver Pasha, who was also one of the leaders of the CUP on August 2, 1914.[397] On the same day, after the alliance agreement was signed between the Turks and Germans, Enver Pasha issued the mobilisation order, which was regarded as a surprising and unexpected development both for the Entente States and the Ottoman government.

Preparations for Mobilisation

The Ottoman Empire had lost almost all of its European territories during the Balkan Wars and its armies had experienced a devastating defeat. Therefore, its armed forces were in need of a fast and overall renovation. As such, the Ministry of War initiated the reform of the army even before the treaty that would end the Balkan Wars had been signed.

The first step taken to reform the land forces was to call in an expert military commission from Germany. Major General Liman von Sanders assumed the presidency of this commission, which travelled to Turkey upon the permission of the German Emperor Wilhelm II. The duty entrusted with the German Military Reform Panel was finalised with the contract signed by and between the Minister of War and Liman von Sanders on October 27, 1913. The commission started its work upon

[397] Edward J. Ericson, *Size Ölmeyi Emrediyorum! Birinci Dünya Savasi'nda Osmanli Ordusu* (Istanbul: Kitap yayinevi, 2003), p.45.

arrival in Istanbul on December 14.[398] With the contract concluded, von Sanders, in addition to his administrative responsibilities, was vested with broad authority regarding the discipline and reform of the army, all kinds of equipment, armament, ammunition, supplies, health, drafting, mobilisation preparations, etc., i.e. on almost all military issues. Von Sanders was to use all of his authority with his commission of ten officers.[399]

As a result of the evaluations made at the end of the Balkan Wars, a consensus was reached on the point that the organisational mistakes and deficiencies seen in logistics services had played considerable roles in the defeats received. Therefore, in the first stages of the military reforms, work oriented to these issues constituted the point of focus. Nevertheless, the considerably short period between the two wars made it impossible to be prepared in accordance with the experiences gained during the Balkan Wars. Thus, the repetition of the negativities that had been experienced during the Balkan Wars could not be prevented during the Fist World War.

The truth discovered at the end of the Balkan Wars once more was the importance of logistic support during the war. It was then known that naked and hungry units deprived of proper health services could not be expected to win big victories at the front; no matter how good the plans of war operations were. However, the Sublime Porte entered the First World War with the same deficiencies in logistic activities, supply services could not be made on time or properly. It was alleged that the defeats suffered at Sarikamis, the Basra Gulf and the Suez Canal were due to the failure to establish logistic provisioning troops on time. The logistic

[398] Carver, p.4.

[399] *TSK*, vol. 2, part. 6, pp.108-110.

support could only be provided to the Çanakkale front on time, which made a great contribution to the victory there. Naturally, the economic conditions that the Sublime Porte was in, the deficiency of the transportation lines and means, the lack of trained personnel and the long distances between the fronts opened all had effects on the inefficient logistics activities.

The supply problem was one of the biggest imperfections in the area of logistics. Even during the mobilization, supply problems arose in Istanbul and Anatolia, in which confiscation of all transportation vehicles and basic consumable goods by the army together with the mobilisation played a major role. The Commission for War Supplies and Taxes (*Tekalif-i Harbiye Komisyonu*) confiscated twenty-five % of the consumable goods of the craftsmen especially wheat, lamb, potatoes, beans, chick peas, onions and oil in order to satisfy the demand of the armed forces. Despite the fact that the Ottoman Empire was an agricultural country, the flour needed for bread, the fundamental foodstuff, was imported from Romania, Russia and even Marseilles. Blocking transportation to the Mediterranean by means of closing Çanakkale Strait, Russia's entrance into war, and the increase seen in the flour prices in Romania caused a shortage of flour first in the market of Istanbul, then in those of the Anatolian cities.[400] Furthermore, just as in sea lanes and land routes, the Anatolian railways were reserved for the transfer of soldiers, the transportation of wheat, flour or other foodstuff could not be made in these lines. Hence, serious problems were encountered in satisfying the demand for the basic consumable goods like flour, oil, sugar and gas throughout the country as of the declaration of mobilization. Since the commissions established under the surveillance of the Ministry of the Interior, the municipalities and the state failed to solve the supply

[400] Zafer Toprak, *Türkiye'de Milli Iktisat (1908-1918)* (Ankara: Yurt Yayinlari, 1982), pp.268-269.

problem in the years of war, cities increasingly came up against the threat of starvation. Whereupon, the solution seeking for this problem was left to the Ministry of War in 1917, since the ministry had all of the transportation means in its hands. From that date on, the supply needs of the army, institutions and the public were left to be provided by the General Directorate of Supplies (*Iase Umum Müdürlügü*) affiliated with the Ministry of War. The bread problem was partially solved whereas consumable goods, which were hard to find, like olive oil, gas, sugar, matches, were rationed.[401] With the single-handed management of the procedure, the supply problem was straightened out to some degree but anyway; the alimentation problem of the servicemen at the front during the war could not be settled definitely. Poor nutrition weakened the troops, both against the enemy and the diseases. The public also suffered greatly in this regard. The Prices of foodstuff increased in 1917 in a manner that could not be compared to the pre-war era in Istanbul. Meat, which had been sold for seven piasters before the war, was sold for forty piasters in March 1917. The price of butter increased to 80 piasters from 18 piasters whereas that of wood increased to 40 piasters from 20. This was the same for all other basic consumable goods. At the end of the war, in 1918, it was seen that the prices of basic consumable goods were three times higher than those in the previous year. Meat was seventy piasters, butter was 220 piasters, wood was 300 piasters and olive oil was 180 piasters.[402] These price increases in the basic consumable goods and foodstuff caused the public to come up against starvation during the war.

Covering the deficiencies in the area of replenishment was also very significant besides the problems experienced in the supplies. First of all, since the

[401] ibid, p.291.

[402] Süheyl Ünver, "Birinci Cihan Harbi'nde Tip Fakültesi," *Modern Tedavi Mecmuasi* 3 (Istanbul 1952), p. 5.

fronts opened were located in different geographical areas, the logistic planning of the war had to be made accordingly because each and every front had a different climatic condition from the other. For example, whereas there was extreme heat, a climate without any rain and water shortage in Iraq, Syria, Egypt and Yemen, the mountainous and uneven lands and extremely cold climate in Turkish-Russo boundary necessitated taking the relevant difficulties into account. In providing all kinds of logistic services like clothing, alimentation, water need and health services of the servicemen, preparations in accordance with the aforementioned conditions were needed to be made. Otherwise, results like falling sick of the soldiers and personnel, who were not familiar with the conditions of the front they were transferred, and thus losing the men power were inevitable.

New Arrangements in Health

The inefficiency of the health services, both at and behind the front during the Balkan Wars had caused great losses. Medical care was not generally available to the wounded or the sick and many soldiers had lost their lives, which had had a great role in the decrease of the war force and had affected the result of the same directly. Therefore, before signing the treaty, the Ottoman government decided on the reconstruction of the health services, in addition to all other military activities. For this purpose, Süleyman Numan was appointed as Sanitary Chief of the War Office (*Harbiye Dairesi Sihhiye Reisligi*) and General Director of the Health of the Army (*Ordu Sihhiye Müfettisi Umumiligi*) on December 24, 1913. On the other hand, Colonel Mayer, who was on the panel of military experts invited from Germany for the military reforms, was appointed as the assistant of Süleyman Numan Bey in order

to give him the benefit of his abilities. The health regulation to be used by the armed forces during the war was translated from a German health regulation.

The new administration commenced its studies immediately after they were commissioned. Many physicians were superannuated and young and expert staffs were hired by the military-health services.[403] With this new arrangement, it was decided that almost 200 physicians and sanitation officers of different ranks and more than 1,000 pharmacists and surgeons should leave the army. Therefore, at the beginning of the First World War, the remaining health personnel of the Ottoman Empire were 2,555 persons according to the records.[404] Despite the health personnel, which left the armed forces, it was estimated that the new personnel needed for the project prepared by the Chief of Staff could be met from the staff available at the moment and with young physicians who would graduate from The Imperial Medical Society (*Mekteb-i Tibbiye-i Sahane)*[405] within the next few years.[406] The new administration handled the reconstruction of the health services under this plan and tried to complete the deficiencies and to correct the mistakes of the Balkan Wars.

The first arrangement made regarding the personnel was filing of a request for the lists of civil health personnel in their regions by sending circular letters to

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[403] *TSK, Osmanli Devri I. Dünya Harbi, Idari Faaliyetler ve Lojistik*, vol. 10 (Ankara: Genelkurmay Yayinlari, 1985), p.142.

[404] Ahmet Emin, *Turkey in the World* (New Haven: Yale University Press, 1930), p.252.

[405] *Mekteb-i Tibbiye-i Sahane*: Sultan Mahmut II, one year after his military reforms, opened the *Tiphane* (School of Medicine) on the upper floor of Tulumbacibasi Mansion in Sehzadebasi and the School for Surgeons (*Cerrahhane*) on the lower floor of the same on March 14, 1827. Afterwards, due to the lack of space and since the training was separately given, the *Cerrahhane* was moved to another building in Sarayburnu. Soon after, first the *Tiphane* and then the *Cerrahhane* were moved to Galatasaray and their training was combined and they were reopened as one school under the name of *Mekteb-i Tibbiye-i Adliye-i Sahane*. New professors were brought from Austria and training was started to be given in French. Süheyl Ünver, "Asirlara Göre Osmanli Türklerinde Hekimlik", *Tip Tarihi Yilligi II* (Istanbul: Istanbul Üniversitesi Tip Fakültesi Yayinlari, 1983).

[406] Dr. Refik, "Cihan Harbi'nde Türk Ordusu Etibba Istatistiki," *Askeri Sihhiye Mecmuasi 5* (April 1338), First year, p.130.

physician in chiefs of the corps. The first law enacted on this issue was the Law on the Liabilities of Physicians (*Mükellefiyet-i Etibba Kanunu*) dated July 20, 1914 (July 7, 1330). The aim in enactment of this law was to employ and use efficiently civil health personnel in addition to the military physicians at the fronts based on the demand. As stipulated by the law: "other than those who would not leave their duties to meet the physician demand of the corps advancing to the concentration areas, it was ordered that civilian physicians should be called for duty in their own areas. These persons were to be subject to the provisions of the law during the war."[407] The scope of the personnel employment was enlarged based on the increasing demand. For example, in accordance with the new law enacted on February 3, 1914 (21 Kanunisani 1329) entitled the Law on Commissioning Non-Liable Physicians (*Gayri Mükellef Etibbanin Tavzifi*) surgeons and pharmacists without any diplomas who had resigned before completing fifteen years of service or those who had retired after fifteen years of service were also drafted into the army. Based on this law, the distribution of the physicians who were employed in the army was as follows:[408]

Table 2. Distribution of Army Physicians in 1914

Nationality	Hospitals of Istanbul	Hospitals of 3rd Army	Hospitals of 4th Army	Hospitals of 5th Army	General Total
Muslim	2	0	2	3	7
Greek	29	2	2	9	42
Armenian	17	1	3	4	25
Jewish	3	0	1	1	5
Catholic-Maronite	0	0	13	0	13
Total	51	3	21	17	92

[407] Özbay, p. 305.

[408] Dr. Refik, p. 133.

For the personnel deficit, which could not be made up despite the aforementioned arrangements, a new law was passed and the employment of the physicians who had not been deemed liable was made compulsory.

In the same year, a new law entitled the Law on the Salary to be Paid to Students of the School of Medicine to be Employed in Mobilisation (*Seferberlikte Istihdam Edilecek Talebe-i Sihhiyenin Maasati Hakkinda Kanunname*) was passed and enforced. Therefore, students of School of Medicine were also included within the scope of service. Accordingly, the students of the Military School of Medicine, the Faculty of Medicine, and Schools of Medicine, military and civil veterinary students and health personnel who had been trained abroad and had passed the relevant examinations in Turkey would be employed in military health services during the war, if needed. Personnel and staff obtained with the new arrangements were therefore commissioned in the mobile armies, the logistic provisioning troops and fixed support services behind the front.[409] With these arrangements, the medical schools were closed down and education was interrupted. The students of these schools were sent to hospitals in need of personnel.

In addition to the arrangements of personnel, the commission invited from Germany to reform the health services commenced some significant studies. The German physicians who came to Turkey were first of all to protect the war making capability of the Ottoman army against epidemic diseases with their studies on hygiene and bacteriology. Some of these physicians were employed in hospitals. For example, Prof. Dr. Stanislaus von Prowazek and Dr. H. Da Rocha-Lima from the

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[409] ibid, p.306 Furthermore, for detailed information on the arrangements made with regards to the logistic provisioning troop health services of the armed forces in the year of 1913, see TSK, vol. 10, pp.143-144.

Hamburg Institute of Marine and Hot Climate Countries Hospital came to the Haydarpasa Military Hospital in 1914 in order to make investigations on louse typhus. Furthermore, the veterinary and bacteriologist Shilling worked in the same hospital with the title of Consultant of the Medical Office (*Ordu Sihhiye Müsaviri*).[410] The physicians worked as military physicians and hygiene experts on the Suez, Çanakkale, Caucasia and Iraq fronts throughout the First World War struggled against epidemic diseases like cholera, typhus, typhoid fever, malaria, and dysentery both in the armed forces and among the civilians with their Turkish colleagues.[411] The German Red Cross commission also made important contributions in the struggle against epidemic diseases and their treatment. This group first stayed in Erzurum for nine months and then served in Defterdar Hospital in Istanbul.

The Germans had a well-supplied bacteriology laboratory. Dr. Bentmann was appointed as Chief of the Anatolian Laboratory for Contagious Diseases (*Anadolu Emraz-i Sariye Laboratuari*). Bentmann prepared and issued an activity report each month and therefore presented information on the course of the epidemic diseases and the studies conducted thereon. These reports include important information on the bacteriological activities pursued during the war. In addition, the Germans opened German Hygiene Institution (*Alman Hifzissihha Müessesesi*) under the management of Dr. Ziemann in Halep during the First World War and gave health services there.[412]

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[410] Ekrem Kadri Unat, *Osmanli Imparatorlugu'nde Bakteriyoloji ve Viroloji* (Istanbul: I.Ü. Cerrahpasa Tip Fak.Yay., 1970), p. 111.

[411] See Renate Wittern, "I. Dünya Savasi Sirasinda Türkiye'de Çalisan Alman Hekimleri," *Yeni Tip Tarihi Arastirmalari*, vol. 1, (Istanbul 1995), p. 35.

[412] Unat, p.111.

The sanitary works of the Ottoman Army were conducted by the Directory of the Sanitary Office during the First World War.[413] The struggle against epidemic diseases was among the most important issues on which the Directorate focused. It was obligatory to take strict precautions against the epidemics under the extraordinary conditions of the war. After learning this lesson the hard way during the Balkan Wars, the Directorate was determined not to make the same mistakes. Lack of knowledge on diseases would be replaced with knowledge, the deficiencies would be made up, the necessary precautions would be taken and a complete reconstruction on hygiene would be made in the army. Therefore, it was decided that physicians would be trained in Gülhane in classes called "further education courses" (*tekamül tedrisati*). The physicians attended the lectures of Mayer and expanded their knowledge on military medicine and epidemic diseases during this training. For this purpose, a comprehensive training program was prepared and put into practice immediately. Furthermore, with the studies conducted in Kuruçesme and Fenerbahçe laboratories opened to supplement the laboratory in Gülhane, vaccines for smallpox, cholera and typhoid fever were prepared and great efforts were made to establish the system applied in the modern armies.[414]

Vaccine administration was undertaken with great diligence during the years of First World War in the Ottoman Army. Since the importance of the vaccine in preventing the epidemic diseases was acknowledged, a circular was issued by the Directorate of the Sanitary Office even in the mobilisation period. In this circular, it was stipulated that all soldiers should be vaccinated against smallpox, typhoid fever and cholera and that record of these vaccines should be made on their identity cards.

[413] BOA., DH.ID., 165/36 – 15.

[414] Özbay, p.124.

Furthermore, when the soldiers went to a hospital, the physicians of the detachments would record the vaccinations on their discharge certificates or staff identity papers. In cases where the soldiers who went to hospitals were not vaccinated against smallpox, typhoid fever or cholera or the same were not recorded in their discharge papers or identity cards, the reason for this would be asked from the physician of the detachment immediately. It was deemed mandatory that this application be observed by all physicians-in-chief of the detachments of corps, divisions and hospitals.[415] Vaccination was one of the biggest precautions taken by the army against the epidemic diseases during the First World War.

The Directorate of the Sanitary Office commissioned the Directorate of Health of the 3rd Army in the struggle against the epidemic diseases throughout the country during the war. This army worked with the civilian health institutions during the war, publicly announced the necessary instructions and orders and trained the health personnel.[416] The first regulation of the Directorate in the struggle against the epidemic diseases was prepared in 1914. In a regulation published under the title of Regulation on Contagious and Epidemic Diseases (*Emraz-i Sariye ve Istilaiye Nizamnamasi*) the struggle against the epidemic diseases was included under the duties of the Ottoman state.[417] It was explained in detail which diseases were included under the scope of “epidemic diseases" and which arrangements would be made for each disease. Municipalities, police centres, gendarmerie stations and local-administrative authorities were deemed responsible for conducting the necessary

[415] Presidency of Military History and Strategic Studies (ATASE), Class no. 2213, D no. 48, F. (1-39).

[416] Tevfik Saglam, *Büyük Harpte 3. Ordu’da Sihhi Hizmet* (Istanbul: Askeri Matbaa, 1941), p.61.

[417] M.V., D 234, G 76/1 (1332.Ca.16 – April 12, 1914).

examinations and diagnosing the diseases. Notices in this regard would be made to these centres.[418]

Informing the relevant authorities of the disease rested with everyone who was cognizant of them, especially family members. Those who did not observe this duty would be punished. Those who were found to have caught the disease would be medically examined by the physicians of the relevant area as well as by the physicians commissioned by the state to diagnose the disease and to begin the treatment. These operations would comprise protective precautions like isolation and quarantine.[419]

In case of an epidemic disease that would emerge within the boundaries of the Empire, a commission, to be established under the presidency of the Minister of the Interior or *Sihhiye Müdür-i Umumisi* in Istanbul or Governors or Directors of Health in other cities, would be commissioned to enforce all arrangements made and all precautions taken by the government.

The regulation covered both civilians and the army. Furthermore precautions were made not just for the domestic affairs but also for passengers and the sick who might come from any foreign area where an epidemic disease was seen. It was deemed obligatory that all foodstuff, beverages and all personal belongings be inspected and disinfected in order to avoid the disease and to prevent its spread.

When all aforementioned are evaluated generally, it is seen that the regulation comprised more of therapeutic precautions than the protective ones. Therefore this legislation did not help in the eradication of the diseases. Nevertheless, it prevented their spread in the short term.

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[418] M.V., D 234, G 76/1-5 (1332.Ca.16 – April 12, 1914).

[419] M.V., D 234, G 76/3 (1332.Ca.16 – April 12, 1914).

The typhus epidemic that had emerged after the Balkan Wars and that had been seen in small or big outbreaks in almost all parts of Anatolia upon the demobilisations was also one of the topics of focus of the government. For this disease, which was estimated to have increased especially in the eastern regions with the war, two separate laws were enacted in 1914. The first was Guidelines for Disinfection Precautions to be Applied against Typhus and on Prevention of Its Spread (*Lekeli Hummaya Karsi Ittihaz Olunacak Tedabir-i Tahaffuzuye ve Mania-i Istilaiye Üzerine Talimatname*). In this regulation precautions to be taken in the cities were listed and a detailed plan of precautions on sanitation was presented. Also at the end of the regulation it was emphasized that typhus was a disease that spread by lice. It was requested that the announcement below be duplicated and affixed everywhere in order to create sensitivity on this issue.

Typhus or Army Fever

This a mortal disease that rends the heart once it enters yours house. This disease spreads everywhere and destroys families. Lice bring typhus; try not to be infested with the lice. Try to avoid them. Disinfect your patients to get rid of the lice. The most crucial solutions in order not to be infested with lice are cutting the hair and beard short, not leaving any other hair on your body and always looking for lice in clothes and underwear.

In the next parts of the announcement it was recommended that naphthalene be put in to the pockets of clothes and mercury ointment applied to the arms of the clothes, the legs of trousers and collars where lice might gain access to the body.[420]

Since the most effective way of fighting lice was cleaning, disinfection operations were highlighted in the regulation. As known, hygienic inadequacies had played a big role in especially the spread of cholera and dysentery during the Balkan Wars, therefore new arrangements were introduced with regards to sanitation in the precautions taken against the epidemic diseases. In this regard, in Regulation on Sanitary Administration of Cities (*Vilayat Idare-i Sihhiye Nizamnamesi)*[421] adopted in 1913, it was ordered that disinfection stations equipped with all kinds of disinfection tools be established in cities and sub-divisions, whereas disinfection devices and isolation units were to be brought to districts according to their populations. Nevertheless, the allotment necessary for the application of the above order could not be reserved and due to insufficient sanitary personnel, this regulation was not implemented at the desired level. Therefore, in especially the countryside of Anatolia, epidemic diseases emerged in huge outbreaks because of inadequate hygiene conditions. In the guidelines newly prepared and enacted in 1914, the aim was not just the institutions, but the growth of awareness of epidemic diseases among the public.

The aim of laws, guidelines and circular letters published with regards to the epidemic diseases was to protect the soldiers and the public from these diseases during wartime. The negative effects of the diseases upon the army had been clearly seen in the Balkan Wars. In addition to the precautions taken by the army to protect

[420] *Lekeli Hummaya Karsi Ittihaz Olunacak Tedabir-i Tahaffuziye ve Mania-i Istilaiye Üzerine Talimmatname* (Istanbul: Matbaa-i Osmaniye, 1330).

[421] Ergin, vol. 6, p.3109.

the soldiers from the epidemic diseases, the efforts of the soldiers themselves to preserve their own health were also important. Therefore, following Japan's lead, small pocket hygiene pamphlets were prepared for the protection of their health during both peacetime and wartime and given to each soldier at the time of mobilisation. These pamphlets were written in plain language in order to be easily understood by the soldiers. Nevertheless, this application was not as successful as it had been in the Japanese army for the level of literacy was very low in the Turkish army. To overcome this, the Office of the Chief of Staff (*Erkan-i Harbiye Dairesi*) decided that pocket health brochures should be given to staff of lower ranks who were in close contact with the soldiers during the war.[422]

Memorandum on the Diagnosis, Protection against and Treatment of the Epidemic Diseases during Campaigns (*Seferde Bulasici Hastaliklarin Teshis, Koruma ve Tedavisi Hakkinda Muhtira*) was published for the military physicians in 1914. With this decision, the information and precautions necessary for the struggle against the epidemic diseases were explained to the physicians of the detachments. Diagnosis of the diseases correctly was of prime importance. Incorrect diagnoses could delay the precautions to be taken within the army and could cause spreads. Therefore, the physicians were to examine the blood of each patient with fever under a microscope and in cases where they were unable to see malaria or *humma-yi racia*, they were to assume the disease was typhoid fever and to conduct the necessary blood tests. All patients under suspicion would be examined daily and their bodies would be examined for spots. Those with spots in their bodies would be transferred to a separate ward and the extermination of lice would begin. The physicians of the units to which these patients would go were to be warned and the higher authorities were to be informed of the situation. For the treatment of *humma-yi racia*, salvarsan

[422] ATASE., Kls no. 2213, D no. 48, F. (1-20).

(arspheanmine) of 45 centigrams or neo salvarsan (arspheanmine) of 60 centigrams would be injected intravenously. No medicine was recommended for typhus; the patients were required to be disinfected from the lice entirely and secluded in a well-ventilated room and their mouths were to be kept clean.[423]

The orders given included the precautions necessary for the struggle against the epidemic diseases. However, when the inadequate conditions of the sanitary organisation of the armed forces were taken into account, it was acknowledged that these were not applicable. It was not indicated how and with which disinfection means the typhus patients would be disinfected, the physicians of the detachments did not have microscopes and furthermore, it was known that the medications recommended for the treatment of the diseases were not available in sufficient quantities to satisfy the demand. Therefore, just as many other plans that had been drawn up during the Balkan Wars, these regulations and laws, introduced without taking the conditions of the country into consideration, remained only on paper. The only difference from their equivalents in the Balkan Wars was that they were not prepared during the war as per the needs, but before the war commenced. However, the laws and regulations that did not satisfy the need or that could not be possibly applied would be left aside and some new arrangements would be introduced and some new inventions would be put into practice.

In parallel with the laws enacted and arrangements made, upon the declaration of mobilisation, intensive work was initiated in Istanbul and the soldiers were transferred to this units based on the war plan. Soldiers who had been treated in hospitals for wounding or diseases were also included in this transfer process.

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[423] *Seferde Hizmet-i Sihhiye Hakkinda Malumat-i Umumiye ve Sâri hastaliklara Karsi Tedabir*, Harbiye Nezareti Sihhiye Dairesi (Istanbul: Kader Matbaasi, 1330), pp.15-25.

Nevertheless, it is seen that some significant problems were encountered during these operations, which should have been completed within a very short time. Many soldiers sent to the ports and railway stations from hospitals in order to be transferred to their hometowns or detachments were kept waiting for a long time since they did not have their "transfer notes" in their hands. When these soldiers who had just been discharged from the hospital and were still weak went back to their hospitals to acquire their documents after waiting for too long, they were unable to find anyone to assist them since the dismissal procedures were still continuing. This situation both prolonged the transfer of many soldiers and caused them to be wretched. As far as understood from a file dated September 1914, since the number of the aggrieved increased, the situation was left to be dealt with by the *Sihhiye Nezareti*, and the Ministry issued a circular letter ordering that no one should be discharged from the hospitals without a transfer note. This letter was notified to the physicians-in-chief of Haydarpasa, Maltepe, Gümüssuyu, Kuleli, Zeytinburnu, Büyükliman, Izmir, Ayastefanos, Yildiz and Gülhane hospitals on September 8, 1914 (August 26, 1330) and therefore the issue was settled.[424]

The Establishment of Hospitals and Health Institutions

One of the arrangements made in the area of health services was the establishment of hospitals for the treatments of soldiers who were injured or fell ill at the front. In accordance with the planning made, establishment of forty-seven hospitals, the capacities of which ranged from 300 to 500 beds, was contemplated. The target for the number of beds was 13,450. Based on the same plan, each physician would serve fifty patients and health staff of sufficient number would be

[424] ATASE., Kls no.2213, D no. 48, F. 4.

appointed to each hospital. Work was initiated in accordance with this plan. Istanbul was thought to be the strong point of the medical services of the army. Other than the hospitals of Haydarpasa, Gümüssuyu, Maltepe, Yildiz and Gülhane, all domestic health institutions including those in Tuzla, Hereke, Izmit, Eskisehir and Konya were activated under Physician-in-Chief of the Commander in Istanbul. Motherland Hospitals (*Vatan Hastaneleri)* were established in Istanbul with the initiative of the Directorate of the Sanitary Office. Efforts were made to cover the medical pharmaceutical and health equipment needs of the armies in general from the pharmacy depots in Sirkeci and Gülhane Hospital. Furthermore, attempts were made to create mobile hospitals and medical companies for each corps at the newly opened fronts, and either new hospitals were put to practice or the already existent hospitals were enlarged. For example, the capacity of Trabzon Hospital was increased to 1,500, that of Erzincan to 5,000, Sivas to 1,000 and Erzurum Central Hospital to 10,000 for the Caucasian front. A health workshop was established in Erzurum in order to meet the equipment and material demands of these enlarged hospitals.[425] The hospitals and medical companies established in this area were to be supported by the logistic provisioning troop sanitary depot.[426]

For the Çanakkale Front, the base and central hospitals in Çanakkale and Gallipoli were put into the service of the armed forces. Gallipoli Hospital was enlarged with a branch of 200 beds in the French Hospital in Gallipoli. Also, Bandirma Hospital was transferred to Gallipoli, along with its personnel and materials and the military hospital in Tekirdag was prepared as a reserve hospital.[427]

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[425] TSK, vol. 10, pp.300-301.

[426] ibid, p.145.

[427] ibid, p.300.

The Presidency of Health Department of the Army started to fight against the epidemic diseases with the cooperation of the 2nd Army in its areas (Ankara, Erzincan, Sivas, Elazig, Bitlis, Bayburt, Syria and Baghdad) upon the commencement of the mobilisation. In this regard, a hospital of 2,600 beds was established for the epidemic diseases. The Red Crescent Society made a contribution of 1,400 beds. Nevertheless, none of the works could be completed since the war started soon after, therefore efforts had to be made to make up all of the deficiencies during the war. [428]

Efforts of the Red Crescent Society both in Istanbul and in the provinces were very important in the establishment of hospitals. As soon as the war was declared, a hospital of 500 beds, together with a perfectly equipped sanitary commission, was sent to Trabzon and then Erzurum via the Ottoman ship Gülnihal Hilal-i Ahmer. The hospital continued its services until January. When the city was captured by the Russian, 100 beds and some of its physicians were left there. The personnel fled to Erzincan and then to Sivas at the end of June 1916. The Sanitation Panel of the Red Crescent Society (*Hilal-i Ahmer Heyet-i Sihhiyesi*) that remained in Sivas until March 1918 dealt with the health problems of the inhabitants of the area free of charge and opened a Rabies Laboratory (*Daülkelp Laboratuari*) and a Vaccination House (*Telkihhane*) when they discovered rabies cases there. When the Russians enlarged the front, the hospital was transferred to Samsun in order to assist the transfer of the wounded and the sick from the coast. The sanitary unit dealt with the malaria problem in the coastal area from Bafra to Trabzon, established a laboratory in Samsun and conducted successful operations in the struggle against the malaria for three months. In addition to these works, they entered into cooperation with the army

[428] ibid, pp.143, 145.

in July 1918 in order to help the refugees crowded into Samsun under very miserable conditions and established a communal kitchen and supplied clothes, health equipment and medication. When Erzurum was received back, the hospital was again transferred there. It is known that after Dr. Emin Bey resigned, Bacteriologist Server Kamil Bey[429] was appointed as physician-in-chief in his stead. The Red Crescent Society treated 8,988 sick and wounded and made more than 100,000 bacteriological analyse and prepared vaccines against cholera and smallpox in sufficient quantity for the army until its services in the Caucasian front were over in November 1918 (1334 Tesrinisani).[430]

In addition to the establishment of hospitals, the Red Crescent Society opened convalescence units (*nekahathane*) in the places deemed necessary. One of the most important convalescence units was Erzurum *Nekahathanesi* with 500 beds under the presidency of Dr. Nazim Bey again on the Caucasian front. This convalescence unit, which was established in Ilica, after operating for a short time, was transferred to Erzincan upon the request of the sanitary unit of the army. Since no proper building could be found for the hospital there, the cavalry barracks were evacuated and repaired by making disbursements of considerable amount and turned into a convalescence unit. It was reported that in parallel with the withdrawal of the army, the institution was transferred to Erzincan, Kemah and Kisri and the number of beds was increased from 1,000 to 2,000. Furthermore this institution assisted supplying foodstuff, clothes and other needs of almost 500 refugees and 500 orphans coming

[429] Server Kamil (Tokgöz) After graduating from the School of Civilian Physicians (*Tibbiye-i Mülkiye*) in 1902, he first became a bacteriology assistant and then the chief bacteriologist of the Faculty of Medicine. Server Kamil Bey worked as the general secretary of the Faculty of Medicine for a while, was appointed as the director of *Ankara Refik Saydam Hifzissihha Müessesesi* and passed away during this position. Erden, p. 288.

[430] *1335: 1919 Senesinde Münkad Hilal-i Ahmer Meclis-i Umumisi Heyet-i Muhteremesine Takdim Edilen 1330-1334 Senelerine Ait Merkez-i Umumi Raporu* (Istanbul: Matbaa-i Orhaniye, 1335), pp.5-7.

from places under invasion on the Caucasian border. Epidemic diseases diagnosed among these persons were treated and the orphans were transferred to the *Eytam Talas Yurdu* upon the order of the army.[431]

In addition to these activities on the Caucasian front, the society opened a Red Crescent Society Hospital of 500 beds in Diyarbakir and subordinated this hospital to the 2nd Army. The armed forces and the Red Crescent Society realized significant health services both at and behind the front in cooperation. In this regard, health tools and equipment and other needs of some military hospitals were covered by the Society and hospitals and health institutions were put the service in zones of conflict based on the needs. The military hospital in Dobluca and convalescence units in Bursa can be given as examples.[432]

The Red Crescent Society also opened some hospitals in Istanbul during the First World War and therefore provided health services to servicemen and civilians. At the beginning of the war, the Society established six hospitals of 1,400 beds each in Istanbul and provided two hospital ships of 500 beds in order to carry the wounded from the front. Additionally two dispensaries were opened in Üsküdar and Fatih and the physician and personnel needs of all of these health institutions were again covered by the Red Crescent Society.[433] Upon the need for sanitary materials during the Çanakkale War and for a hospital of 2,000 beds in the environs Adapazari, the Society established a centre in Eskisehir and immediately started to transfer sanitary materials from the health equipment storage facilities in Istanbul and health personnel who would serve in the hospitals. At the same time, for the hospitals to be

[431] ibid, p.8.

[432] ibid, pp.16-17.

[433] Akgün and Ulugtekin, pp.202-203.

established in the environs Adapazari, a separate sanitary unit was sent. Soldiers sent to Istanbul due to the heavy armed conflicts on the Çanakkale front by ship were sent to Beyoglu, Galata, Darüssafaka hospitals and Cagaloglu *Inas Sultanisi* and the Faculty of Medicine in Haydarpasa by the Red Crescent Society. Furthermore *Zapyon Mektebi* in Taksim was turned into a hospital and put into service for wounded and sick soldiers. Thus the Faculty of Medicine with 1700 beds, Beyoglu Hospital with 1500 beds, Galata Hospital with 500 beds, Taksim Hospital with 500 beds, Cagaloglu Hospital with 500 beds, Kadirga Hospital with 250 beds and Darüssafaka Hospital with 500 beds, in total seven hospitals with 5500 beds were opened under the name of Red Crescent Society Hospitals in Istanbul. 19,443 wounded men were treated in these hospitals in total. Yet the hospitals in Istanbul were far from satisfying the need during the Çanakkale battles. Thereupon a separate health institution was decided to be built in Gallipoli and a field hospital of 200 beds was put into service with its sanitary panel. This hospital, established in Gallipoli, after working under heavy air bombardment during the most vigorous days of the war, was transferred to Sarköy for military reasons. The hospital was then sent to Tekfurdagi (Tekirdag) within a short span of time since the foodstuff and supply needs of the hospital were covered with great difficulties in Sarköy due to the war. It dealt with the treatment of more than one thousand sick and wounded soldiers in a period of eight months.[434]

The Red Crescent Society provided health services to thousands of sick and wounded soldiers during the war not only with the hospitals it established, but also with dispensaries, convalescence units, assistance units, laboratories and mobile hospitals that were put into service throughout the country. Furthermore teahouses and guest houses were opened in order to help weak soldiers and those who were in

[434] *Hilal-i Ahmer 1330-1334 Senelerine Ait Merkez-i Umumi Raporu*, pp. 9-11.

need of help after being discharged from the hospitals or left behind by the inspection commissions as of the mobilization until the end of the war. For example, tea and bread were given away in the teahouse in Sirkeci to weak soldiers to be transferred to Rumelia and for those who had been wounded in Çanakkale, and in the teahouse in Haydarpasa for the weak soldiers to be transferred to Anatolia. It was known that these soldiers experienced great difficulties for they waited for their transfers for days in the railway stations. In order to provide their accommodation and eating, guesthouses for the weak of fifty beds were opened in Eskisehir, Ankara, Konya and Ulukisla on the line to the fronts. Since this line was the transfer route of the 3rd Army, most of the time the sick were also accepted to these guesthouses. Even the Ulukisla guesthouse was turned into a hospital since the number of sick soldiers was more than expected. The Red Crescent guesthouse established in the environs of the railway station in Eskisehir accepted many sick soldiers besides the weak with its physicians and nurses.[435]

The War Period

According to Enver Pasha, Germany was the most powerful state in Europe in terms of armed forces. War was inevitable and it was almost impossible that the Ottoman Empire could remain neutral. Therefore the state with which an alliance would be established had to be chosen carefully. Since Britain had pursued a policy of dividing the Sublime Porte since 1878 and the other European states had taken a similar attitude, the only alternative was Germany. Enver Pasha was of the opinion that Germany could support the Ottoman Empire in both economic and military manner. At the same time, if the war was won, the Ottoman Empire could regain its

[435] ibid, pp. 17-18.

lost lands and prestige back. Moreover Germany was also supporting Pan-Turkish movements that aimed to incorporate the Turks living in Russia into the Ottoman borders in order to see the Sublime Porte on its side against Russia.[436] All of these expectations drove Enver Pasha and some leaders of the CUP to an alliance with Germany.

The next move of Germany after the alliance agreement and declaration of mobilization was to have the Ottoman Empire enter the war as soon as possible. As such, the arrival of Wilhelm Souchon, Commander of the Mediterranean fleet of the German Navy to Istanbul with two war ships named Goeben and Breslau escaping from the British Navy in the Mediterranean marked the first step of the Ottomans into the war. The Ottoman Empire actually entered the war on October 29, 1914 after it was announced that the two German war ships had been purchased by the Turkish government, these two war ships bombarded the Russian Navy in the Black Sea.

The Sublime Porte, which entered the First World War in an extremely unprepared fashion, had to fight on four different fronts. Whereas two of these fronts (the Caucasian Front and the Çanakkale Front) were opened in Anatolia, the other two (the Channel Front and the Galiçya Front) were opened outside of the Anatolian lands.

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[436] W.E.D. Allen and Paul Muratoff, *Caucasian Battlefields, The History of the Wars on the Turco-Caucasian Border* (Cambridge: Cambridge University Press, 1953), p.239.

Epidemic and Contagious Diseases on the Anatolian Fronts

The Caucasian Front

The Caucasian Front was one of the most important fronts opened in northeast Anatolia during the First World War. It was initiated by Enver Pasha, the Minister of War and Deputy High Commander (*Baskomutan Vekili)*, in order to incite the Caucasian Turks to rebellion to drive the Russians out of the war. Nevertheles, the lack of the necessary equipment to realize this aim and the strategic mistakes made caused incidents like the Sarikamis Operation, which was accepted as one of the biggest defeats in the First World War, and losing some of the territories at hand. Only after Russia withdrew from the war the territories lost could be received back and the Ottoman State could reach to its boundaries at the beginning of the war. In order to understand the reasons underlying the defeats in the Caucasian Front, it is beneficial first of all to examine the physical conditions of this region and the deficiencies during the war time, for in the defeats of the Ottoman Empire in this front, neglecting the physical conditions of the region in the war plans prepared before the war, timing mistakes and logistic inadequacy played major roles.

The Caucasian Front was located within the Iran border, comprising south Caucasia, Iran, Azerbaijan and Eastern Anatolia, 450 km. of which was under Turkish-Russian whereas 400 km. of which was under Russian oocupation. The area of dominance of the Ottoman Empire in such a broad area was limited to eastern Anatolia. Van, Erzurum, Bitlis, Diyarbakir, Elazig, Trabzon and Urfa had many different ethnic groups before the war. Muslims of Turkish, Kurdish, Laz and

Caucasian origins, Armenians, Greeks and Jews were the most important among these ethnic groups.[437] This composition affected the course of the war.

The region within the borders of the Caucasian Front also presented many difficulties in terms of land and climate. The most distinctive feature of the region was high and steep mountains and a harsh climate. Beside the fact that Black Sea mountain ranges were too steep and thickly wooded to climb, most of the inhabitation areas were established on high uplands. In the basin of Van Lake, at the east end of the area, there were Süphan Mountain, Aladag and Tendürük Mountain. The Turkish-Russian border started from Agri Mountain and stretched to the Black Sea. In such a mountainous area, winters were both long and violent. Thickness of snow could reach 1.5 metres, whereas the cold weather could be minus thirty centigrade. Transportation was one of the main issues of the region. It could only be made at the points where mountains permitted passage and in cases when the weather conditions allowed.

During the First World War, there were two routes that departed from Istanbul and arrived at Erzurum. The first one arrived at Erzurum via sea lane over Trabzon. This route was open for a short span of time at the beginning of the war, nevertheless was closed after the Russians became dominant in the Black Sea. The second route passed through Ulukisla via railway and connected to Erzurum. Since railway was existent only between Ankara and Ulukisla, a highly defective common highway of 900 kilometres had to be passed in order to reach Erzurum.[438] The Russians had extended their railways to Sarikamis, but had prevented construction of

[437] Sevket Süreyya Aydemir, *Makedonya'dan Ortaasya'ya Enver Pasa*, vol. 3, (Istanbul: Remzi Kitabevi, 1992), p. 87.

[438] Aydemir, p.32.

railway to the east of Ankara by means of political pressure.[439] Since motor vehicles were scarce, supplying the 3rd Army with foodstuff, ammunition and soldiers was extremely difficult.

Preparations for Mobilisation

The Ottoman Empire commissioned the units of the 3rd Army to fight on the Caucasian Front. The number of personnel of this army was 190,000 soldiers, 120,000 of whom were stationed on the front line, and 60,000 animals in total. Since the headquarters of the army was in Erzurum, most of the units were gathered there. Support centres behind the front were located in the cities of Trabzon, Elazig, Diyarbakir, Bitlis and Musul, districts of Bayburt, Tercan and Kigi, which were affiliated with Erzurum in those days, and the sub-district (*liva*) of Elazig.[440]

The most important problem experienced by the units of the 3rd Army was the deficiencies in logistic services from the mobilisation period to the end of the war. The troubles experienced in transportation caused the army to come up against major hardships in foodstuff and all kinds of ammunition supplies. As of the mobilisation, war equipment started to be sent to Trabzon and Samsun ports by ship. However, due to the difficulties mentioned, the materials were left to pile up at the ports. Trucks, in a very small number, were be used to transport these materials from Ulukisla to Erzurum on the main highway. Even the cars allocated to the high ranking staff could be used very little due to the poor roads and the scarcity of petrol and automobile parts. Therefore, the transportation of food and ammunition could only be made via

[439] Muratoff, p.216.

[440] Saglam, pp.5-6.

ox carts and riding animals such as horses, donkeys and camels. The continuous decrease in the number of these animals before long caused a halt in even this transportation and a serious scarcity of foodstuff was experienced in the army. Therefore, supplies were sometimes carried by the soldiers and civilians for long distances, whereas the soldiers who were transferred to the front had to walk all the way. The transfer of servicemen to the front was made on foot until the end of the war.

Great hardships were experienced also in health organisation, which was one of the logistic services of the 3rd Army units. In addition to the difficulties seen in the transfer of the health equipment and personnel to the region, no proper planning was made. In the sanitary organisation of the front, a medical company was given to each division and three mobile hospitals were given to each corps. There was no medical company or mobile hospital in the cavalry divisions. Field hospitals where the wounded could be carried, though present at other fronts, were almost not existent at the Caucasian Front. For an army with 189,000 soldiers, 1,800 beds were prepared at the front whereas 4650 beds were prepared in total behind the front. Among those, Erzurum, Bayburt and Trabzon hospitals were the most significant since they were at the nearest position to the front. Since the headquarters of the army was located in Erzurum, this city was left to carry most of the burden. In spite of the fact that 10,000 – 12,000 beds should have been prepared upon accumulation of the soldiers, there were only 900 beds in the city at the beginning of the war. No sanitary order was present in most of the hospitals of the region. No health organisation was established on the routes where sick and wounded soldiers could be transferred. A couple of sanitary cars sent from Istanbul could not be used at all due to the poor roads and the

scarcity of petrol and automobile supplies. Therefore, the sick and wounded were transferred to hospitals via car, horse or, most of the time, on foot.

As for the health equipment, as of the declaration of mobilisation, the *Harbiye Nezareti Sihhiye Dairesi* tried to transfer as much health equipment as possible to the army. These were transported to Samsun by ship. After the war started, this transportation was made to Ulukisla via railway and by car and on horses from Ulukisla to the front. However, most of the materials supplied from Istanbul were gathered in ports, especially in Trabzon. Due to the scarcity of transportation means, the fact that a logistic provisioning troop had not yet been established and transportation of war equipment had priority over health equipment, the health equipment could not be sent to the units on time.[441] The Red Crescent Society made great contributions to the army in sanitary materials supply. The Red Crescent Society Hospital, sent just before the Black Sea route was closed via Gülnihal ship, was able to transport some materials to Erzurum over Trabzon. The hospitals had almost no disinfection machines. At the beginning of the war, there were only four sterilisation machines in the 3rd Army: one fixed sterilisation unit each in Erzurum and Trabzon and two mobile sterilisation machines in Trabzon. Furthermore, it was evident that the mobile sterilisation machines could not be moved under such land and climatic conditions.[442] This drove the army very weak especially against the epidemic diseases.

Besides the health equipment, the war packages of the units were also deficient. Since most of the war packages sent were stranded on the road, efforts were made to supply unbleached and coarse calico, gauze wound dressing packages

[441] Saglam, pp. 6-7.

[442] ibid, p. 79.

and medicine tablets from Van Hospital. The efforts of the Governor, Administrative Officer (*Mutassarrif*) and inhabitants of Van in preparation of the wound dressing packages were significant.[443] In spite of the fact that resilience on an extraordinary level was being expected from the army, the soldiers were poorly dressed and fed. The army units, dressed for a hot climate, were all of a sudden sent to the Caucasian Front in the middle of winter.[444] Most of them did not have greatcoats or even proper shoes. When the climatic conditions of the season are taken into consideration, they could be deemed naked. It is certain that deficiencies in clothing played a major role in deaths from exposure and in the appearance of diseases like pneumonia.

Medical personnel were rudimentary in the detachments of the 3rd Army. Especially in the hospitals behind the front, the number of physicians was well below the need. In accordance with the plans made by the Chief of Staff at the beginning of the war, it was estimated that no big vacancies would be experienced in the medical personnel. Even if there were no difficulties with regards to the physicians and health personnel to be employed, serious problems were encountered in the transfer of the health tools and equipment and personnel to the fronts. Therefore, the importance of detailed planning that took the transfer and operation of the units, including the health unit, into consideration during drawing the war projects was acknowledged. In spite of the fact that number of physicians needed had been determined as 357 at the beginning of the mobilisation, this figure was afterwards indicated as 234, excluding forty-seven civilian physicians. Urged by necessity, thirty-five physicians were also sent to the region. As understood from this table, during the military build-up period of three months, from the declaration of the mobilisation to the beginning of the war,

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[443] Özbay, p. 128.

[444] Emin, p. 251.

the health services, especially the service organisation behind the front, could not be arranged.

The War Period

The armed conflicts at the Caucasian Front started on October 31, 1914 when the Russians crossed the border and advanced into the Turkish lands. The first Köpüköy Battle, which took place on November 7, was hard for both sides. The fact that the war started in winter urged the Turkish army whose technical equipment was insufficient at the mobilisation period, to retreat from the Russian forces. After this first defeat, upon the orders of Enver Pasha, an attack was decided and the second Köprüköy Battle was started to regain the lost lands. Despite the fact that a couple of positions could be taken up during this battle fought under snow and blizzard with great difficulties, Turkish Forces had many battle casualties. The Russian forces also lost many soldiers and started to retreat since they regarded themselves as in a weak position. The Turkish forces, taking advantage of the withdrawal of the Russian forces, started to move again and engaged them in the battle of Azap, which lasted three days, in December. However, it cannot be said that the desired results were attained. The casualties of the Turkish Army were great. Not only artillery or rifles, but also epidemic diseases that broke out among the soldiers played a big role in increasing the number of casualties. Typhus and *humma-yi racia* were at the top of the list among these diseases. It was observed that the diseases spread even more after the gunshots were stopped. Within the period of one month that passed until the Sarikamis Operation, the harsh winter conditions softened up the units considerably. Beside the fact that there were not enough tents, villages that were able to support the

units were far from the defence line. These difficulties caused poverty and increased the spread of diseases day by day.

Since Enver Pasha focused all of his plans on the Caucasian Front on the Sarikamis Operation, he concentrated on the reinforcement of the 3rd Army and in preparation for the operation plans as of December. The operation took place in winter, which engendered many serious problems. Due to the violent winter conditions, the soldiers needed special clothes, and foodstuff supported with tahini and fuel. But the physical conditions of the region made adequate support and supplies impossible. Since the deficiencies could not be overcome, the conditions of the army worsened. However, Enver Pasha, despite these truths, was of the opinion that the Russians could be defeated within a short time, relying on a false report on the weakness of the Russian headquarters, sent from Berlin. Enver Pasha, with these thoughts, came to Erzurum in order to participate into the planning works on December 12. On the other hand, army units from Thracia were sent to the region in order to support the attack. Commander of the 3rd Army was Hasan Izzet Pasha and the chief of staff was Lieutenant Colonel Guse, who was German.[445] In accordance with the plan made, whilst the 11th Corps would attack and distract the enemy, the 9th and 10th Corps would advance to Sarikamis, surround the enemy from behind and destroy them.

The Sarikamis Operation started on December 22, 1914 upon the order of Enver Pasha. Although the attack was successful at the beginning, since the weather was -26 centigrade and the depth of the snow was 1.5 metres on the Allahü Ekber Mountains after December 28, the conditions changed. The situation grew worse and

[445] Ericson, p.82.

worse every day. It was estimated that the temperature was -40 and the depth of snow reached 5-6 metres during the operation.[446] The Ottoman Forces, most of whom did not even have coats or proper shoes, had to deal with violent cold weather and starvation on one side and with geographical difficulties in the mountains of three thousand metres on the other. The operation started with food supplies that would last four days. It was planned that the units would be fed with food captured from the enemy. However, neither this expectation came true nor was the foodstuff already available distributed among the soldiers.[447]

Under these circumstances, it was difficult for the soldiers to survive, let alone fight. The existent sanitary organisation and medical companies were highly inefficient during the Sarikamis Operation, which was started without any health plan or preparation. The medical companies of the 28th and 29th divisions were taken captives by the Russian. Mobile hospitals could not be activated anywhere. Since communication between the units was cut, the Chief of Medical Office of the Army (*Ordu Sihhiye Reisi*) was unable to receive any news from the soldiers. Therefore, no one was able to understand the exact needs of the units. The Ottoman troops, whose number increased considerably due to freezing and typhus, fought against the Russian Army with difficulties during the Sarikamis Operation. According to the records of the General Staff, the number of soldiers in the 9th Corps, which had originally had 18,000 soldiers, decreased to 1,000 on December 27.[448] It was possible to see the same situation in the other units. Therefore, a great deal of the army had dissolved before they reached Sarikamis. Enver Pasha joined the

[446] ibid, p.87.

[447] Muratoff, p. 276.

[448] Özbay, p.131.

advance attack on December 29 and assumed direct control of the operation. However, the Russian forces, which had increased their strength with reinforcements, made a violent attack on January 5 and thrashed the Turkish forces. Thereupon, Enver Pasha left the command to Hafiz Hakki Pasha and left the front on January 9. The Turkish forces withdrew and retreated to their position before the operation. Those who could come back were exhausted, starved and sick and their hands and feet were frozen.

The Sarikamis Operation lasted for eighteen days in total, from December 22, 1914 to January 9, 1915. Though the information available is not certain on the exact amount of causalities of the army units at the end of the operation, General Fahri Belen estimated that the Turkish Army lost 40,000 soldiers as captives and dead and that the total number of the army decreased to one-third with the wounded, sick and deserters, whereas Fevzi Çakmak claimed that the correct number was 60,000. In some sources, however, it was indicated that out of the Ottoman Army of 150,000, 90,000 died and 40,000 – 50,000 were taken captive.[449] Whatever the real figure was, it is evident that the casualties of the Sarikamis Battle were devastating and that this result affected the other battles fought on the Caucasian Front negatively. According to Guhr, Commander of 1st Private Division, most of the casualties were the result of death by exposure or starvation, whereas typhus killed the rest.[450] It is clear that the main cause of this situation was the deficiencies in the area of logistic support. Tevfik Saglam, *Sihhiye Reisi* of the 3rd Army, indicated that no information on the food supplies, support services behind the front or organisation of the sanitary

[449] Ericson, p.87.

[450] Helmut Becker, *I. Dünya Savasi'nda (1914-1918) Osmanli Cephesinde Askeri Tababet ve Eczacilik*, unpublished ,Ph.D. diss., Istanbul Üniv. Çapa Tip Fak. Deontoloji Ana Bilim Dali, 1983, p.32.

services had been incorporated into the preparations or in the attack order of the Sarikamis Operation.[451] Despite the bitter experiences gained during the Balkan Wars, such gross negligence in the logistic services of the army is thought-provoking. The result that arose at the battle of Sarikamis was that most of the soldiers, though not wounded at the front, were left outside the war due to hunger, cold and lack of health services.

During the First World War, the Russian Army, just as the Ottoman Army, experienced many difficulties in terms of health services and logistics. The units transferred to the Caucasian Front faced medico-sanitary aid and nourishment difficulties due to the transportation problems. The war plans prepared by the Ministry of War became inefficient as of the beginning of the war and the number of sick and wounded well above the estimations proved the feasibility of the Ministry and of the services of the Russian Red Cross insufficient. Therefore, the military authorities had to seek the support of the social aid institutions and the members of Duma established "Provisional Committee for the Relief of Wounded and Sick Soldiers" under the presidency of M.V. Rodzianko in July, 1914. With the aid efforts, organised under the theme of patriotism, the co-operation between the civil organisations and the military authorities lasted until the end of the war.[452]

In accordance with their own declarations, 20,000 Russian soldiers died in battle, while 9,000 died from freezing. If the 2,000 – 3,000 who were taken captive by the Ottoman Army are added, it is seen that the total amount of the casualties of

[451] Saglam, p.11.

[452] For detailed information, see, John F. Hutchinson, *Politics and Public Health in Revolutionary Russia 1890-1918* (London: The Johns Hopkins Press, 1990).

the Russian side was about 32,000. Sevket Süreyya Aydemir estimated that 7,000 soldiers of the Russian army froze to death.[453]

After the battle of Sarikamis, Hasankale and Pasinler were swarming with sick soldiers who were weak or had deserted. The hospitals were unable to admit any patients. Almost all of the physicians caught typhus and most of them passed away. It was estimated that the number of physicians who died from typhus in Erzurum Hospital exceeded 100.[454] On February 1915, the most important issue to be dealt with by the Ottoman Chief of Staff was a typhus outbreak, for many staff and commander had also caught the disease. Even Süleyman Numan Bey, the Director of the Sanitary Office, was resting in bed due to typhus, whereas the Commander of the Army, Ismail Hakki Bey, was among those who died due to typhus. Hafiz Hakki Pasha, Commander of the 3rd Army, passed away in this spread and Mahmut Kamil Pasha was appointed in his stead.

The first arrangement made by Mahmut Kamil Pasha after he was appointed was to demand reinforcements from Thrace for the 3rd Army, which had been weakened considerably in the Sarikamis Operation. Upon this demand, the 37th Division of the 13th Corps and well-equipped units under the command of Lieutenant Colonel Halil Bey were moved from Istanbul to the East.

The reinforcements being transferred from Istanbul were named as 5th Campaign Forces (5th *Kuvve-i Seferiye*), whilst their transfer was still continuing. These forces, during a long marching of two months, encountered with many difficulties. As they came nearer to the East, the effect of the epidemic diseases started to be seen among the ranks. The symptoms of typhus were seen for the first

[453] Aydemir, p.95.

[454] Özbay, p.133.

time among these units on February 2, 1915; furthermore, serious freezing incidents began to be experienced by the soldiers due to the extremely cold weather. Some soldiers, who were affected psychologically by this situation, deserted their units. A mobile sterilisation machine was brought to Diyarbakir despite many difficulties, but could not be moved any farther. As the soldiers approached Erzurum, they entered the zone of influence of typhus and the other epidemic diseases and began to fall ill. After a long and tiresome journey made in this way, soldiers of the 5th *Kuvve-i Seferiye* arrived at Erzurum having lost a considerable number of their soldiers.[455]

The units affiliated with the 13th Corps encountered with similar problems. These units, coming from a warm climate, caught epidemic diseases on their way and lost a considerable number of their soldiers. They could not move the mobile hospital cars they had brought any farther than Diyarbakir. Health services could not be sufficiently provided to the servicemen since most of the officers of the medical company also got ill. When they arrived at the areas of their deployment, it was seen that these units had many casualties, since no proper arrangement had been made during the transfer in order to preserve the health of the soldiers.

Upon the inability to provide the reinforcement needed with these two units, about 70,000 reserved militiary were called to the training units in Erzurum on February 11, 1915. In accordance with the order issued, deserters, stragglers, those sent to other climates due to disease and the wounded were all called back. However no order was issued or arrangement made with regards to sanitary organisation and precautions during the gathering of these units. Arrangements only for the gathering, training and disciplining of the soldiers were made. It was not taken into consideration how long the soldiers gathered could be efficiently used under the ongoing negative sanitary conditions.

[455] Ericson, p. 91.

One of the topics of focus of Mahmut Kamil Pasha was food supplies. The supplies, which were already inefficient, had been all but exhausted during the Sarikamis Operation. Therefore, foodstuff should be sent to the units immediately. When the authorities were informed of the situation by means of a report, the Office of Common Supplies (*Levazim-i Umumiye Dairesi*) took a new decision on the matter on February 2, 1915. In accordance with these decisions, the cities, which fell within the area of supplies of each army should send foodstuff according to the needs to the storehouse indicated by the army. However, by that time, the stock in the storehouses of the cities had also been decreased considerably. Increasingly the conditions of the region and the scarcity of the necessary transportation means to carry out the concerned transfer prevented due actions in harmony with this decision. Cities gave away all the sources available to them for feeding the army, even the seed saved for planting by farmers. However, these already limited supplies were far from efficient for the nutrition needs of the units. After a while, the units of the army, as well as the inhabitants of the region, came up against the threat of starvation. The Armenian emigration that took place in the region on the days when the threat of starvation began (May 27, 1915) worsened the situation. Since some of the transportation means were used in Armenian emigration, the food transfer, which was being carried out with difficulties, almost stopped in some cities. Even, in some of them, the foodstuff transfer could only be made after this issue was settled.[456] When hunger and cold climate were combined, the soldiers were left in a weaker condition against the epidemic diseases. In the report prepared by Chief Medical Office of the Army (*Ordu Sihhiye Riyaseti*) on March 1915, it was indicated that almost half of the army fell sick and the reason for that was stated as malnutrition

[456] Tuncay Ögün, *Kafkas Cephesi'nin I. Dünya Savasi'ndaki Lojistik Destegi*, (Ankara: Atatürk arastirma Merkezi, 1999), pp.151-155.

and cold climate. In the report, it was put forth that "…the main reason of demolition of the army is not the epidemic diseases, but the fact that the privates have bee left in deprivation and starvation for months. The only way of recovery is to feed and to care these soldiers in a perfect way for months, which is not possible under the current conditions."[457]

The first attack of the Russians after the Sarikamis Operation took place on April 1915 at Tortum. In this armed conflict, which lasted until the middle of May, the Russians succeeded in capturing Van and reinforced their victory with the Azap Battle, fought on December 11, 1915. Since Erzurum was in a very critical condition after Azap, it was decided that the city should be emptied based on the possibility of a Russian invasion. All organisation and materials that could be used for defending were carried out of the city and the sick and wounded were transferred to hospitals in other cities. On the day when the emptying was completed, February 11, 1916, the Russians attacked the city and invaded it within five days. It was better understood that the decision to empty the city was well taken.

After losing Erzurum, the 3rd Army introduced arrangements including some regarding the health services. From this date on, health services were to be carried out by the health institutions of three biggest cities and districts of the area, namely, Trabzon, Bayburt and especially Erzincan. During the withdrawal, centres for struggling against the epidemic diseases, health stations and disinfection centres were put into service and as many health services as possible were attempted to be provided to the army.[458]

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[457] Saglam, p.131.

[458] In each of the health stations, a disinfection place, bath and shower devices were present. The disinfection operations conducted in these centres during the transfer of the patients brought many advantages especially against the epidemic diseases. Also, shelter houses, established in particular distances from one another, were used to protect the soldiers commissioned in providing supplies of

In 1916, some units (the 1st and 5th *Kuvve-i Seferiye* Units) were separated from the 3rd Army and sent to the Channel Front. Since no reinforcements were sent in their stead, the Russians seized this opportunity and invaded Of on March 26, 1916, Trabzon on April 18 and Erzincan on July 25.[459] After it was understood that the city would be attacked by the Russians, it was decided that it should be emptied as in Erzurum and the sick in the city were transferred to hospitals in Sivas, Nigde, Amasya, Gümüshane and Kayseri and some other surrounding cities. Since it was summer and there were previously established health stations on the way, the evacuation was completed easily.[460]

The Ottoman Empire, upon the Russian attack of 1916, lost many cities and districts in the region of the 3rd Army and had to retreat up to the line of Kemah-Tirebolu. The cities captured by the Russian were important centres for the army in terms of both food supplies and health services. Especially abandoning Trabzon port to the enemy made the health and food supply transfer to the area impossible. Since the Trabzon-Erzurum line was the most proper route the region had, it had been used as the main supply route from the beginning of the war. After this date, no marine transportation could be made for two years. Therefore, no sufficient health aid could be sent to the region until the end of the war and the food supply of the units was mostly provided from Sivas.[461]

In the meantime, the chief of staff of the 3rd Army, Major Guse also caught typhus in 1916 and went back to Germany. Besides soldiers and military

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the army from death by exposure in stormy weather and under blizzard in winter. *TSK.* vol. 10, pp.399, 486

[459] Özalp, pp.153-155.

[460] TSK, vol. 10, p.399.

[461] Ögün, p.178.

commanders in the army, many health personnel and physicians lost their lives from this disease.[462]

With the dominance of the Bolsheviks in Russia as of November 1917, the condition on the Caucasian Front changed. Since the new administration that came to power rejected the heritage of the old administration totally, they declared that Russia could withdraw from the First World War. Thereupon, they signed treaties with the Germans and Austrians on December 7, 1917 and with the Ottoman on December 171, 1917. However, the withdrawal of the Russian forces did not mean that the Caucasian Front was closed for the Turkish. Newly reinforced army units were mobilized to fight against the Armenians and Georgians, who attacked seizing the opportunity in the region as of February 12. In the battles fought, respectively, Ordu was received back on February 12, 1918, Erzurum on March 12, Ardahan on June 3, Van and Batum on June 8, Kars on April 25 and Gümrü on May 13, 1918. With the treaty concluded with the Armenians, Georgians and Azeri at the end of May, the Caucasian Front was closed.[463]

Epidemic Diseases Seen at the Caucasian Front

Humma-yi Racia

Humma-yi racia caused a great number of casualties in the region of the 3rd Army during the First World War. During the Balkan Wars, this disease had been seen in Yanya. No records on the determination of such a disease can be encountered

[462] Ericson, p. 173.

[463] Muratoff, p.437 ; Özalp, p.169.

in the registries of the previous periods. It is known that before the First World War, there had been some *humma-yi racia* cases in some parts of Anatolia, though very few, whereas, this disease was started to be seen among the units of the 3rd Army as of November 1914 and continued its existence at different levels of intensity, but without stopping.

As far as understood from the reports issued by the Directorate of Health of the Army, the biggest outbreaks of disease in the region involved typhus and *humma-yi racia*. When the appertaining figures are examined, it is seen that *humma-yi racia* spread more than typhus, but the number of deaths it caused was lower. The reason for this can be the characteristics of the spread of the disease and its treatment, and some incidents that took place during the war. When the health reports of the army are taken into account, it is seen that *humma-yi racia* gave its biggest damage in 1915 and 1916. 13,600 persons caught this disease within ten months in 1915 and 4,678 of them lost their lives. The rate of death by disease was determined as 34%. In 1916, the number of those who caught humma-yi racia was 8,382, whereas the number of those who died from it was 1,592. Thus, the rate of death decreased to 19%. In 1917, the careful operations conducted under the scope of the project of struggling against the epidemic diseases that had spread throughout the region and sanitation caused in the extermination of the lice within the region and decreased the incident of *humma-yi racia*. The number of people who caught the disease decreased to 3821 and that of those who died because of it decreased to 453 in 1917. In 1918, decisive results were attained in the struggle against the epidemic diseases and, in parallel with the same, the rate of those who died from the disease decreased to 5% in nine months.[464]

[464] Saglam, p.92.

Humma-yi racia is spread by lice. Since there are great similarities between this disease and typhus, these two diseases were most of the time taken for one another during the war. When Tevfik Saglam was appointed as *Sihhiye Reisi* of the 3rd Army, understanding that typhus was taken for the flu, typhoid fever, and most of the time for humma-yi racia, he indicated that he had to introduce new arrangements for the diagnosis of the diseases.[465] Blood test is definitely needed in order to diagnose typhus and humma-yi racia correctly. It is known that scarcity of necessarily equipped laboratories available to the armed forces and lack of feasibility and knowledge on the part of the physicians of the detachments to make these analyses properly caused diagnosis of humma-yi racia to many typhus patients. This explains the high rates indicated for this disease at the beginning.

Nevertheless, the violent course followed by the disease cannot be explained with the fact that some tests were made incorrectly. There had been other underlying reasons for the inability to slow down the speed of the disease after the necessary arrangements were introduced on this matter. At this point, the unique characteristics of *humma-yi racia* explain the violent outbreaks it caused during the war better. *Humma-yi racia* is a disease dissemination period of which is longer than that of typhus. A louse that sucks the blood of a *humma-yi racia* patient can disseminate this disease to others for twenty-eight days, whereas the same period is only two to three days for typhus.[466] Therefore, early diagnosis and treatment are of prime importance in the struggle against *humma-yi racia*. In case the disease cannot be diagnosed until its later stages or diagnosed incorrectly, therefore the necessary treatment is not initiated; the disease can result in severe spreads in a very short time.

[465] ibid., pp. 81-82.

[466] ibid, p. 96.

When the sanitary inefficiencies that the army was in are taken into consideration, these kinds of delays are not surprising. This can be one of the main reasons for the severe epidemics.

The treatment of *humma-yi racia* is different from that of typhus as well. Since both of the diseases spread via lice, the extermination of the lice is the first precaution to be taken. But in the treatment of humma-yi racia, neo salvarsan (arspheanmine) is used, which is not used against typhus. Since neo salvarsan was not known during the Balkan Wars, salvarsan was melted with difficulty and injected intramuscularly.[467] After the discovery of neo salvarsan during the First World War, the usage of salvarsan was abandoned. Furthermore, some arrangements were made with regards to the treatment of the disease both in the armed forces and in hospitals after 1915. As in the other epidemic diseases, the places where *humma-yi racia* appeared most and disseminated most were transfer centres, training places and hospitals. Relying upon this fact, the *Harbiye Nezareti Sihhiye Dairesi* granted the authority to all military physicians to engage in extermination of lice. Therefore a strict cleaning operation began in the army. Hospitals were also included under the scope of this struggle.[468] In 1916, men who had been recently enlisted were not accepted to their units without being disinfected.

In October of the same year, disinfection houses were established together with the transfer control centres in Kayseri, Sivas, Tokat, Niksar, Zara, Karahisar, Ordu, Samsun and Susehri and the privates being transferred to the front underwent examination and disinfection there. Furthermore, in all disinfection stations at the

[467] Noyan, p. 18.

[468] Abdülkadir Lütfi, "Harp Salginlari", *Askeri Tip Mecmuasi* 1, vol. 25 (Kanunusani 1339), p.6.

front, sanitation furnaces began to be used without any exceptions.[469] In addition to the struggle against lice, the *Harbiye Nezareti Sihhiye Dairesi* sent continuous supplies of neo salvarsan to the 3rd Army and tried to ensure that no problems would be encountered during the treatment of the disease. The battle against the disease that started in 1916 continued until the end of the war and by the end of 1917, the diseases that spread with lice decreased to more than half. On September 1918, humma-yi racia was totally eradicated from the area. When the statistical results are evaluated, it is seen that during the First World War (42,5 months) 26,898 persons caught *humma-yi racia* and 6,773 of them died due to this disease.[470]

Cholera

Cholera was an important disease that had done considerable damages to both civilian and military population and had marked the era of the Balkan Wars. It had appeared during the withdrawal of soldiers and refugees after the Kirklareli Battle, had caused many casualties and continued until the end of the war. A significant experience had been gained through the precautions taken against this disease and this experience was used throughout the First World War.

No cholera outbreaks were seen in the region of the 3rd Army at the beginning of the war, nevertheless, a warning made by the Directorate of the Sanitary Office on August 1915 caused a general alert in the army against this disease in the whole country. The concerned warning put forth that there had been cholera outbreaks in Tiflis and Baku in Russia and in Tabriz, Huy and Rumiye in Iran and extraordinary

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[469] Saglam, p.176.

[470] ibid, p.93.

precautions had to be taken at the borders.[471] The second warning of Directorate of the Sanitary Office came at the end of the same month. In a letter sent to the Directorates of Health of the 2nd, 3rd and 6th Armies, it was learnt that severe typhus and cholera outbreaks were continuing in the Russian army and that the necessary measures should be adopted accordingly.[472]

Therefore, the 3rd Army took serious precautions against this threat which came from the front. Upon the possibility of the disease's entering the country via emigrants, refugees and prisoners of war, medical examination, disinfection and isolation began to be applied strictly at the borders. A hygiene consultant (*hifzissihha müsaviri*) was appointed to each corps and a mobile laboratory was also given. Vaccination, which was the most efficient method known in struggle against the disease, was started again and it was decided that the vaccinations of the whole army should be renewed. In order to produce the amount of vaccine needed, a vaccine production laboratory in Erzurum began work on the cholera vaccine only. With great efforts, the vaccination of the whole army was completed in October.[473]

Yet despite all precautions taken, the dissemination of cholera in the country could not be prevented. In November, cholera cases were determined in three different parts of the 3rd Army. The places where cholera was first seen were the battalions in Bayburt and Trabzon in the Black Sea region. It was determined that cholera had disseminated via the boats docking at the coast. Upon understanding the source of the disease, the physicians-in-chief of the army were ordered to take the necessary precautions whereas the soldiers were ordered to cease their

[471] ibid, p. 106.

[472] ATASE, Kls no. 2450, D no.211, F 5.

[473] Saglam, p.106.

communication with these boats. Furthermore, the Directorate of the Health of Borders (*Hudud Sihhiye Müdüriyeti*) was ordered to act accordingly and to initiate administrative proceedings on the matter.[474] The dissemination of the disease especially in Trabzon with great speed aroused the suspicions that the microbe might be spreading from the food supplies of the army or the water that the soldiers were drinking. As a result of the examinations made, it was understood that the reason of the disease was the open top pool in the barracks of the battalion. The dissemination of the disease happened in different ways. First, the disease spread rapidly among the soldiers who drank water from or washed their faces and hands in this pool, then disseminated among the public via the soldiers who received the microbe in this way and wandered freely in the city centre until it was first diagnosed and at the end, those whose disease was diagnosed as cholera and admitted to the hospitals spread it more since the necessary precautions were not taken. Therefore the disease was distributed in a speedy way in the city.

Immediate precautions were taken and started to be applied in order to prevent further dissemination. The vaccines were reviewed, the cholera patients in the hospitals were separated from other patients and those who recovered were subject to many analyses before discharge. It was prohibited to send patients out of the region and soldiers were not allowed to leave the places where cholera had been seen. Foodstuff transportation was admitted provided that strict controls were made. Furthermore, all roads intersecting in the region were put under medical control by the physicians. The inhabitants of the region were asked to notify those arousing suspicion of the disease and those who were suffering from diarrhoea. All military

[474] ATASE, Kls no. 2434, D no.110, F. (5-95).

detachments were disinfected. Due to these precautions, the cholera spread was halted within a month.[475]

The route that cholera followed in the region of the 3rd Army was Erzurum. Cholera showed its face in the city on November 1915 when the typhus outbreak was present and therefore worsened the situation. It was first seen in a soldier in Morgof Hospital on November 30 and thus it was understood that the disease originated from the barrack near the hospital. Since Erzurum was both the headquarters of the operation and one of the busiest places of call in the region, it was of vital importance that this disease be eradicated. Therefore, soon after the disease was first seen, the Morgof barracks underwent strict examination and isolation. However, when those who were given reports of health caught the disease within a short span of time, it was decided that the barracks should be evacuated. All cholera patients, those arousing the suspicion of the disease and healthy ones were transferred to Bavman tents erected around Erzurum Central Hospital. As a result of the medical examinations and analyses made, patients and those arousing the suspicion of the disease were separated from the others and secluded in different wards.[476] With the evacuation of the Morgof Barrack and other measures, the disease was stopped.

But cholera reappeared in two important centres, Sivas and Erzincan, in the first months of 1916 and started to threaten the region. It was first seen in January in Susehri and in Erzincan when the army and the public were withdrawing after Erzurum was abandoned to the enemy. In a letter sent by the Physician-in-Chief of the 3rd Army, Tevfik Salim on March 14, 1916 (March 1, 1332) to the Directorate of the Sanitary Office, it was stated that the first cholera case was seen on January 1,

[475] Saglam, p. 107.

[476] ibid, p. 110.

1916 (19.12.1331) in Erzincan in a soldier and that the disease had probably been carried to the city via refugees. In the same letter, it was further stated that as a result of the examinations, it was understood that the disease had disseminated via polluted water and that cholera cases had also been seen in the 3rd, 9th, 10th and 11th Corps in February. Furthermore, it was added that the water supplies of Erzincan Central Hospital, on which bacteriological analyses had been made, were found to be 77% infected with the cholera microbe, that 155 persons had caught this disease in the hospital, whereas 111 of them had died because of it. This suggested that the water supplies of Erzincan Central Hospital were not hygienic.[477]

Great efforts were paid throughout March in order to prevent the disease; by the end of the month the disease was under control. But it is hard to say that cholera was only limited to Erzincan. It is understood from an official correspondence made on March 7 that the disease spread to Sivas via refugees.[478] Parallel to the movements of the refugees, the disease was further spread to three regions from this route. The first one was Kayseri. Nevertheless, with the medical examinations carried out on the refugees who arrived at Kayseri from Sivas enabled diagnosis of the disease in some refugees and therefore the patients were kept under cordon in tents erected outside the city.[479] Afterwards, all of them were carefully vaccinated and a hospital for the refugees settled out of the city was established and those who caught the disease were treated there. The responsibility of the hospital was assumed by a military physician appointed by the army.[480] Due to these precautions, cholera was destroyed in Kayseri before turning into an epidemic.

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[477] ATASE, Kls no. 2442, D no.159, F 3.

[478] ATASE, Kls no. 2442, D no.159, F (1-40).

[479] ATASE, Kls no. 2982, D no.73, F (21-5).

[480] ATASE, Kls no. 2982, D no.72, F 13.

Some of the refugees who left Sivas moved along the coast and carried cholera to Tokat and Amasya on one side and to Giresun, Ordu, Fatsa, Ünye and Samsun on the other and thus facilitated the enlargement of the zone of influence of the disease.[481] Meanwhile, as far as understood from the telegrams sent by the inhabitants of the region to the *Ordu Sihhiye Riyaseti* of the 3rd Army, one of the reasons for cholera in the coastal areas was boats engaged in marine trading. Since as a result of the investigations made it was acknowledged that the notifications of the inhabitants of the region were reflecting the truth, the Directorate of the Health of Borders was informed of the situation and it was requested that the transfer made by the boats should be taken under medical inspection. Also, it was decided that these kinds of private boats arriving from Black Sea should undergo medical examination and disinfection at the quarantine unit of Çayagazi and even it was ordered that boats transporting military equipment from Istanbul should also be medically examined by the physicians at Istanbul transfer ports and the cargo and personal belongings they carried should be disinfected.[482]

Upon abandoning Erzincan to the enemy in July, a busy traffic started in the region and the inhabitants of the area, who were withdrawing with the soldiers, carried cholera everywhere they went with the other epidemic diseases. Since the danger increased rapidly, the Director of the Sanitary Office (*Sahra Sihhiye Reisi*) sent a warning note, bearing the stamp "very important and urgent," to both the Ministry of the Interior and the *Ordu Sihhiye Reisi* of the 3rd Army. In this letter, which was written on July 25, 1916, (July 12, 1332) it was indicated that the overall health of the country was under the threat of cholera due to the migration from

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[481] Saglam, p.113.

[482] ATASE, Kls no. 2431, D no.96, F (2-27).

Eastern Anatolia and that the results would be highly grievous if the necessary precautions were not taken. For this purpose, it was asked that a sanitary commission of physicians appointed by the General Directorate of Health (*Sihhiye Müdüriyeti Umumiyesi*) should forthwith leave for the region with the necessary materials and equipment in order to work under the orders of Tevfik Salim Bey, *Ordu Sihhiye Reisi* of the 3rd Army.[483]

Upon receiving this letter, the Ministry of the Interior and the Minister of Health immediately attended to the matter and decided that the precautions previously taken in the region should be increased and that the military and civil health institutions in the region should act in cooperation. In this regard, *Sihhiye Reisi* Tahsin, Dr. Mahir and Dr. Ibrahim Bey from Diyarbakir, *Sihhiye Müfettisi* Riza Bey from Mardin, *Müfettis* Caner Bey from Samsun, *Merkez Sihhiye Müfettisi* Yunus Bey and *Merkez Sihhiye Müfettisi* Safi Bey started to work under the orders of the *Ordu Sihhiye Reisi* of the 3rd Army with a proper fee and allocation in order to struggle against the epidemic diseases. Besides this panel, the *Sihhiye Müfettis-i Umumisi* Dr. Tevfik Rüstü Bey, who was engaged in the struggle against cholera in Istanbul at the moment, was ordered to leave for Eastern Anatolia and to join the concerned commission. Furthermore, authorities vested with Tevfik Salim Bey in the area were increased and it was stipulated that he would be in direct relationship with the ministry during the period of struggle and that all sanitary officers he needed would immediately start to work under his orders. The Ministry allocated a budget of 2,000 lira for the struggle and decided that spending this amount would entirely rest with Tevfik Salim Bey.[484]

[483] ATASE, Kls no. 2434, D no.110, F (13-2).
[484] ATASE, Kls no. 2434, D no.110, F (13-4).

Dysentery

Dysentery was one of the diseases that caused the highest amount of casualties during the First World War. During the Balkan Wars, while the army had been withdrawing to the Çatalca line, the soldiers had relieved themselves in a disorderly fashion almost everywhere, polluting the waters and creating a highly suitable environment for the disease, which had turned into an epidemic soon after it had first been seen. It caused many deaths together with cholera. The number of cholera and dysentery patients transferred to Ayastefanos (Yesilköy), other than Hadimköy, had exceeded 20,000 in a month. The dysentery outbreak in Çatalca had continued for a considerably long time and the number of those who had caught the disease increased to one third of those who had caught cholera.[485]

Dysentery showed its face with again a big epidemic in the region of the 3rd Army during the First World War. At the beginning of the war, the symptoms of the disease were thought to be signs of hunger and misery; however, as a result of the bacteriologic tests made, it was understood that there were many dysentery cases in the area. In the monthly report issued by the *Ordu Sihhiye Riyaseti*, it is seen that the disease gave its biggest damage in March and May of 1915. In 1915 (within a period of nine months) the number of those who caught the disease was 8.315, whereas the number of those who died from it was 3,578. The disease had a death rate of forty-three percent. The period when the disease and death cases were seen the least were January and February of 1916, possibly because the soldiers were at the front.

The disease continued at a higher level during the remaining months of the year. Within the whole year, 3,002 persons caught this disease and 1,615 died. Thus

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[485] Noyan, p. 3.

the death rate increased when compared to the previous year and reached a very high amount, fifty-four percent. In summer 1917, a decrease was again experienced in the disease, but it continued eradicaly until February 1917. As of this time, dysentery appeared not as an epidemic but an illness that showed its face in the region at intervals.[486] When evaluated generally, this disease is remarkable for its high rates of death despite the fact that its appearance decreased gradually throughout the war. These results suggest that the sanitary precautions taken prevented the spread of the disease, but that the treatment applied to those who caught the disease was not as successful.

The treatment of dysentery was made up of strict sanitation precautions, medication, vaccination and serum. Since the disease disseminated via water and food, sanitation precautions started to be applied as of the first moment the disease was seen. All dishes, forks and knives, glasses and all other personal belongings of the patients were disinfected frequently. In this period, the dysentery patients were first of all given sulphate de sodium and astringent powders (bismuth, tanijen, tanalbin, etc.) and a severe diet of poultice, macaroni and boiled potato was applied.[487] Nevertheless, due to the difficulties encountered with during the transfer of supplies, it cannot be said that this diet was feasible. Methods like vaccination and serum were also used during the treatment of the disease in the First World War. The dysentery vaccine was first applied in military detachments where this disease had been seen in 1914,[488] however, no criticism, either negative or positive, can be seen on how effective the vaccine was in treatment of the disease. On the other hand, it is known that a considerable amount of dysentery serum was used during the treatment.

[486] Saglam, pp.103-104.
[487] Noyan, pp. 10-11.
[488] Ekrem Kadri Unat, "Koruyucu Asilar," *Dirim* 11-12 (Istanbul 1978), p. 35.

In the 3rd Army during the First World War, 12.642 persons were infected with this disease, 5,942 of whom died. Death by dysentery constituted 5,4% of all deaths.[489]

Other than these major outbreaks, other diseases that caused smaller epidemics were also seen in the region of 3rd Army. One of them was influenza, which was called *nezle-i müstevliye*. It is understood that the *Sihhiye Müdüriyet-i Umumiyesi* was without any solutions for this disease, which was first of seen in the military hospitals in the city of Mamuratülaziz (Elazig) on July 3, 1915 (June 20, 1331) and caused death of many soldiers. Upon the increase of deaths day by day, the General Directorate of the Sanitary Office was asked for help in order to examine the disease entirely and to devise a treatment. The struggle began after the results of this examination were taken and accordingly, the disease could be stopped.[490]

Typhus

Typhus caused the greatest damage on the Caucasian Front. This disease was endemic[491] in almost all parts of Eastern Anatolia. It was known that many armies had had many casualties in previous wars in this region due to typhus. For instance, in accordance with the information supplied by Dr. Osman Sevki Bey,[492] twenty-nine percent of the French soldiers and eighty-two French physicians had lost their lives

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[489] Saglam, p. 102.

[490] ATASE, Kls no. 2422, D no. 46, F. 22.

[491] Endemic: Continued presence of a disease in a place particularly, resident, permanent.

[492] Osman Sevki (Uludag) (1889-1964). A famous scientist known for his work in the area of medicine. Graduating from Military School of Medicine in 1913, he participated the Balkan Wars, the First World War and the national independence movement and assumed many positions on different

during the Crimean War of 1853-1856, whereas nineteen percent of the English army and ten percent of the Italian army had died from it.[493] The casualties of the Ottoman armies are estimated to have been 35,000. 540 persons from the Russian armies had died because of freezing and typhus during the 1877-1878 Ottoman-Russo War.[494] Although a certain figure was not presented for the Ottoman armies, it is estimated that their casualties were higher. Typhus had also been seen during the Turkish-Greek Wars of 1897. During the Balkan Wars, typhus spreads of different aggravation levels had been seen in Yassiviran, Hadimköy, Istanbul and Edirne.

Typhus was not a disease that was seen during wars and then disappeared. It remained present in the Eastern cities especially in winters, and its existence was felt in the region with big or small outbreaks. At the end of the Balkan Wars, in 1913, typhus outbreaks had been seen in almost all parts of the country, especially in Konya and the surrounding areas. Despite the precautions taken, the disease became increasingly dangerous for both the soldiers and the civilians together with the demobilisation.[495] As of March 1914, new typhus cases began to be seen in the region. The disease first appeared in Sivas and Merzifon. The news came in May that it had been disseminated to Samsun, Amasya and Bayburt. The disease was seen in Sivas and Tokat in June; in Sivas, Erzincan, Bayburt and Trabzon in July; in Erzurum and Van in September; and in Hakkari, Erzurum and in detachments of the

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fronts. Elected as a member of the Turkish Great National Assembly as representative of Konya and held this position for a long time. *Türk Ansiklopedisi* vol. 32 (Ankara: M.E.B., 1983), pp.509-510.

[493] Osman Sevki, "Kirim Muharebesi", *Askeri Tibbiye Mecmuas 4*, Year 1(March 1338), p.117.

[494] Charles S. Ryann, *Kizilay Emri altinda Plevne ve Erzurum'da 1877-1878 Rus-Türk Harbi* (Istanbul: Milli Egitim Basimevi, 1962), p.213.

[495] *Hilal-i Ahmer 1330-1334 Senelerine Ait Merkez-i Umumi Raporu*, p. 36.

11th Corps in Hasankale in October.[496] In a telegram dispatched by the Director of Sanitation of the 3rd Army to *Sahra Sihhiye Müfettisi Umumiligi* on August 14, 1914 (August 1, 1330) it was reported that "typhus, which prevailed in Erzurum in the previous years as a major epidemic and resulted in perish of many, has been seen as a separate case."[497]. Shortly, typhus had been existent in the area before the Ottomans entered the war.

The 3rd Army transferred most of its ammunition to Erzurum and the surrounding places, since it was the headquarters of the corps. Soldiers who were coming on foot from farther distances to this region were accommodated in villages and therefore were in a close contact with the public. Because the soldiers were unable to clean themselves anywhere on their road, they were deprived of the means of getting rid of the lice in the detachments. The rate of infestation with lice was very high among the civilian population. Living under poor conditions was very common among both the public and the soldiers and the lack of housing made it obligatory for the soldiers and the public to live together. Therefore, the physical conditions necessary for diseases like typhus and *humma-yi racia* which spread via lice, to turn into serious epidemics were present at the beginning of the war.

Typhus first emerged in this area after the war started, in November 1914. While dealing with the treatment of many wounded and sick in hospitals in parallel with the armed conflicts, an outbreak of typhus and *humma-yi racia* arose due to the congestion and turned into an epidemic with rapid dissemination on November 26. The number of sick and wounded in hospitals increased to 6,929 on November 29,

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[496] For the schedules showing the typhus cases both among the soldiers and civilians between March 1, 1330 (March 14, 1914) and March 15, 1330 (March 28, 1914) see *BOA, DH. ID* 165 / 36.

[497] Saglam, p.78.

4,985 of whom were inpatients of Erzurum hospitals.[498] Since there were not sufficient disinfection machines in the hospitals, those who were admitted into the hospital were infested with lice within a short time, which aggravated the typhus epidemic and facilitated its spread throughout the city. In a very short time, almost the whole region fell within the zone of influence of the disease. In a telegram dispatched by the Directorate of the Sanitation in those days, it was indicated that typhus was spreading especially among the weak soldiers in a violent manner. It was demanded that the soldiers to be transferred from the detachments should first of all be medically examined and the transfer operations should be made only after confirming the nonexistence of a disease.[499]

Similarly, in another telegram, it was put forth that typhus was seen among many soldiers in Mardin and in its environs, that this disease caused serious casualties and that emergency precautions were needed in this regard and assistance was asked from the relevant authorities.[500] When not only the soldiers and civilians, but physicians, nurses and pharmacists also began to fall ill, the already insufficient medical personnel and organisation started to be inefficient more and more. Congestion and hopelessness were widespread in Erzurum; it was reported that seventy percent of those who caught the disease passed away.

According to war ledgers, on December 1914, 3,373 persons were admitted into the hospitals due to disease, whereas 9,100 persons were admitted with wounding; 3,169 of whom died. The condition with regards to the diseases was recorded as follows:[501]

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[498] ibid., p.9.

[499] ATASE, Kls no. 2442, D no. 159, F (3-19).

[500] ATASE, Kls no. 2442, D no. 159, F (3-24).

[501] Saglam, p.11.

Table 3:

Statistics on Diseases Seen in the Army Units on December 1914

Name of the Disease	Number of Cases	Deaths
Typhus	357	138
Typhoid fever	255	125
Dysentery	205	107
Humma-yi racia	167	72
Erysipelas	56	42
Tetanus	10	10

According to Tevfik Saglam, the figures above, i.e., the records were well below the actual amount. In most places, it was not even possible to keep records. The sick and wounded were scattered everywhere, took refuge in different places, some of them were sent to their hometowns whereas some died on roads.

Precautions Taken against Typhus

Mahmut Kamil Pasha, who was appointed as the Commander of the 3rd Army after the battle of Sarikamis, arrived at Erzurum on March 9, 1915. When he was informed of his new post, he knew that there was a violent typhus epidemic there. Since the new commander was well aware of the fact that the medical services directly affected the war making capability of the army, he appointed Dr. Tevfik Salim Bey, the *Ordu Sihhiye Reisi* of the 2nd Army, as the physician-in-chief and

brought him in. As soon as Tevfik Salim Bey started to work in his new position, he introduced new arrangements in the medical services.[502]

1915 can be accepted as the worst year of the First World War in terms of the medical services. The major defeat experienced at Sarikamis, the casualties of the army and the epidemic diseases in the region were the basic reasons for this. Nevertheless, it is seen that advances were made in medical services as a result of the cooperation between the Commander of the 3rd Army, Mahmut Kamil Pasha, and *Sihhiye Reisi* Tevfik Saglam in 1915. The work conducted as a result of this cooperation served as the basis for arrangements to be made in the future.

Among the major problems of the 3rd Army in the region in 1915, the epidemic diseases, especially typhus, were on top of the list. Emergency precautions were applied. The struggle against the epidemic diseases began on the day *Ordu Sihhiye Reisi* Tevfik Saglam officially took office on March 14, 1915. The precautions against typhus had priority among the others since typhus was the most widespread disease that caused the highest casualties. Saglam emphasised five important issues for the effective struggle against typhus and determined the precautions in this regard. These issues were enacting the regulations on medical intelligence of the army, appointing physicians in sufficient number to the hospitals, ensuring early diagnosis and isolation of the patients, an effective struggle against the lice and sanitation of the hospitals.[503]

[502] Özalp, pp.139 and 153.
[503] Saglam, p.80.

Developing Medical Statistics

The importance of statistics and record keeping during the struggle against the epidemic diseases was acknowledged during the Balkan Wars. The Municipality of Istanbul, and the municipalities of the cities of districts, kept detailed statistics of epidemic diseases through the *Sihhiye Müdüriyeti* or *Sihhiye Komisyonu* that was established within their bodies. The army, with an order issued on October 1, 1912 (September 18, 1328) decided that all quarters and units should keep war ledgers[504] during campaigns. Nevertheless, units that kept their war ledgers correctly and on time were scarce during the Balkan Wars. Most of the units or quarters either kept these ledgers in a highly insufficient manner or did not keep them at all. War ledgers were required to be kept properly during the First World Wars, although no educational or enlightening orders or guidelines were published before 1917 in this regard.[505]

Saglam, upon seeing that the parts of the war ledgers on health services were not kept properly, made a new arrangement thereon. Initially, he ordered that the number of sick, wounded and dead in all units and hospitals should be communicated to him in order to reach decisive information on the general medical condition of the army. The medical situation of the army was reported to the *Ordu Sihhiye Riyaseti* of the 3rd Army daily and this information was sent to the General Directorate of Sanitation Office in the form of monthly reports. In the first report prepared in this regard in March 1915, it was put forth that 38,730 persons had been admitted to the

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[504] Ledger keeping is recording the operation made in the battlefield, the forces, feasibilities and means used during the same and the casualties suffered by means of schedules, records and reports.

[505] *TSK*, vol. 3, part. 6, p. 195.

hospitals whereas 9,242 of them had died. The medical statistics developed with regards to the diseases were as follows:[506]

Table 4:

Diseases Seen in the Army as per the Medical Report of March 1915

Name of the Disease	Number of Cases	Number of Death
Typhoid Fever	1,243	654
Typhus	2,109	1,116
Humma-yi racia	2,102	622
Dysentery	2,250	846
Flu (*Nezle-i müstevliye*)	677	50

As seen in the statistics, typhoid fever, typhus, dysentery and *humma-yi racia* were rampant in the armed forces. Among these diseases, typhus gave rise to most of the casualties.

Arrangements for the Early Diagnosis of the Disease and Isolation of Patients

Typhus was occasionally mistaken for influenza (*nezle-i müstevliye*), typhoid fever or *humma-yi racia*. Since correct diagnosis played a major role in the struggle against the epidemic diseases, attention was to be paid during medical examination. As indicated by the Sihhiye Reisi, it was known in Turkey that typhus was a disease that spread via lice as of the Balkan Wars.[507] Therefore the struggle against typhus meant struggle against the lice. As a result of the experiences gained during the

[506] Saglam, p.18.

[507] French physician Charles Nicolle discovered that typhus spread among people via lice in 1909. Nicolle was given the Nobel Medicine prize in 1928 with this discovery.

Balkan Wars, it was learned that a typhus patient without any lice on his body would not pass the disease to anyone around. Interesting though, the Germans were not aware of this medical fact in 1914. Tevfik Saglam indicated that the *Sihhiye Müsaviri* Mayer showed a sharp reaction upon seeing typhus patients sharing the same ward with patients with other diseases without any lice in their bodies in a military hospital established in the Istanbul, district of Maltepe in December 1914. This reaction resulted from the lack of awareness of the Germans that typhus contracted entirely via lice. The Germans did not dare allowing typhus patients without any lice in their bodies to share the same place with other patients until 1916 in Serbia.[508]

Even though it was known for sure that the disease was only disseminated via lice, it was also known that incorrect diagnosis would allow it to spread further. It was only understood subsequently that many flu and *humma-yi racia* diagnose included in the statistics had in fact been typhus. A circular letter indicating that as a result of a research made, it was understood that there was no influenza in the army and that typhus should not be taken for other diseases was communicated to the physicians of the army, who were asked to be extra careful in their diagnosis. This issue was regarded as highly important. Incorrect diagnose could delay the struggle and lead to widespread epidemics in the army. It was especially dangerous to confuse typhus with typhoid fever due to the fact that the protective precautions necessitated the struggle against lice in typhus whereas it was necessary to control the urine and faeces of the patient in typhoid fever. Because *humma-yi racia* was also passed through lice, neo salvarsan, which was not used in the treatment of typhus, should immediately be used in its treatment.

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[508] Saglam, p.82.

During this period, no method other than the extermination of lice and sun bath was known in the treatment of typhus. [509] Thus, the precautions to be taken against the same were limited to sanitation and the destruction of lice. The administration of typhus vaccine could only be initiated in 1915, during the First World War.[510] The typhus vaccine prepared by Dr. Resat Riza,[511] who was working in Gülhane Military Training School and Clinic (*Gülhane Askeri Tatbikat Mektebi ve Seririyati*) was administered to the units of the 3rd Army and successful results were attained.[512]

Typhus outbreaks reached their height in 1915 and caused death of many soldiers and civilians. As recorded by Revfik Saglam, twenty to thirty inhabitants of the region lost their lives each day. Besides the hygienic insufficiencies and medical impossibilities, soldiers who were ordered to move another climate for medical reasons or those who caught the disease and deserted their units and mixed up with the public played a major role in the dissemination of the disease from the front to the villages and towns, in short, everywhere. The disease spread from the main logistic provisioning troop line from Erzurum to Ulukisla and to almost all villages on the road to Erzurum, Erzincan, Harput and Diyarbakir in this way. In accordance with the statistics developed, Erzurum was the place where the disease was seen in its most violent form. February and March were the months when it was the most

[509] ATASE, Kls no. 2205, D no. 7, F. (3-1).

[510] Unat, p.33.

[511] Resat Riza (Kor) (1877-1941). Graduated from *Mekteb-i Tibbiye-i Askeriye* in 1899 and became an assistant in the *Gülhane Askeri Tatbikat Mektebi* and worked under Dr. Deycke for six years. Resat Riza Bey, who worked in Yanya during the Balkan Wars, was appointed as *Sihhiye-i Müdüriyet-i Umumiyesi*, the General Directorate of Health (*Hifsizsihha Müdürü)*, the Director of Hygiene in 1913. Resigning from his official duties in 1919, he worked as a freelance physician until his death. Unat, pp. 90 – 92.

[512] Ekrem Kadri Unat, "Infeksiyonlar Bilimi ve Klinik Mikrobiyolojisi," *Dünyada ve Türkiye'de 1850 Yilindan Sonra Tip Dallarindaki Ilerlemenin Tarihi* (Istanbul: Cerrahpasa Tip Fak. Yayinlari, 1988), p. 244.

fatal. Upon the commission of Tevfik Salim Bey in March and his application of strict medical precautions, the disease started to lose speed at the front in the midst of March; nevertheless, it continued to exist behind the front, among workers, gendarmerie and storage battalions and the public. The work started to yield positive results by the end of June also behind the front, and the zone of influence of typhus narrowed down considerably.

Since the precautions taken were applied to military units with much more care, it is possible to say that the disease was mostly destructive on the civilians until 1917. It is possible to acknowledge this fact from the statistics of April 1916. When the epidemic diseases and death records (*emraz-i sâriye ve vefat hulasa cetvelleri*) are examined, it is seen that on April 16, 1916 (April 3, 1332) twenty-three soldiers an 116 civilians caught the disease and four soldiers and twenty civilians died from it. In April 18, 1916 (April 5, 1332) 123 soldiers and 300 civilians caught typhus and one soldier and fifteen civilians died. On April 24, this figure was recorded as fifty-four soldiers and 119 civilians caught the disease and one soldier and twelve civilians died from it.[513] It should be noted here that parallel to the precautions taken, casualties in the army were low. It is possible to generalise this example for the other epidemic diseases. Since the epidemic diseases were more widespread and devastating among the civilians, the military authorities had to be engaged in the civil medical services in the forthcoming years. Digging the frozen soil and burying the dead constituted a major problem, too.

Supplying Physicians, Medical Staff and Hospitals:

One of the arrangements introduced by the *Ordu Sihhiye Reisi* Tevfik Saglam was opening new hospitals and convalescence units where the treatments of the sick and wounded would be made or enlarging the already established ones, based on the need. The area behind the front was planned to be strengthened medically in this way. First of all, a convalescence unit in tents, made up of 1,000 beds to be administered by the Red Crescent Society[514] and 600 beds to be administered by logistic provisioning troop, in Ilica, afterwards a hospital of 400 beds were established upon the front line and the number of beds in Trabzon was increased to 1,500 whereas that of Erzincan was increased to 5000, of Sivas to 1000 and that of Central Hospital in Erzurum was increased to 10,000 beds.[515] On the other hand, some new arrangements were made in the hospital of 500 beds[516] sent by the Red Crescent Society to Erzurum before the war. The tension that arose between the Red Crescent Society and the *Sihhiye Reisi* of the 3rd Army on these new arrangements presents an example of the relationship between these organisations and the differences between the attitudes of the same on medical services.

Upon appointment of Tevfik Salim Bey as *Ordu Sihhiye Reisi* of the 3rd Army, it was understood that there were some problems in the operation of the Red Crescent Hospital in Erzurum. In the correspondences made between the Director of the Sanitary Office Süleyman Numan, and Tevfik Salim Bey, it was indicated that the hospital, which was originally founded with a capacity of 500 beds, was

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[513] ATASE, Kls no. 2212, D no. 42, F (1-2).

[514] ATASE, Kls no. 2975, D no. 29, F (15-2).

[515] *TSK*, vol. 10, p.301.

[516] *Hilal-i Ahmer Cemiyeti'nin 1330-1334 Senelerine Ait Merkez-i Umumi Raporu*, pp.5-7.

providing services sufficient for 200 beds, although all of the hospitals both at and behind the front were overflowing with sick and wounded soldiers, that only one physician could be allotted to 250 patients and therefore more physicians were needed urgently. It was requested that four physicians from the Red Crescent Society be temporarily sent to the hospitals that needed more physicians.[517]

Tevfik Salim Bey reacted to working of the Red Crescent Hospital with a low capacity in such a critical situation and he wrote a letter to the centre of the society in Istanbul demanding that the capacity of the hospital should be increased to 500 beds at once and in case this demand was complied with, the four physicians taken from the hospital would be sent back and that within this period, the hospital could function with two physicians.[518] Thereupon, the Red Crescent Society Hospital of Erzurum made an explanation to the Office of the Physician-in-Chief of the 3rd Army on their personnel and declared that the demand could not possibly be complied with. According to the explanation, the personnel previously provided for a hospital with a capacity of 500 beds could not be maintained due to the epidemic diseases. Even though there were eight physicians on paper in the hospital, in fact five of them were actually providing health services. Physicians Nuri Ali Bey and Suphi Neset Bey were resting for they had contracted typhus whereas Dr. Ali Kemal Efendi had been transferred to the military unit to which he was attached to complete his military service. If one or two of the physicians who were active fell ill, the hospital would be in a big impasse. Therefore, let alone decreasing the number of personnel, it was requested that Dr. Captain Fehmi Efendi be sent to the hospital instead of Dr. Ali

[517] ATASE, Kls no. 2975, D no. 29, F (1-3).

[518] ATASE, Kls no. 2975, D no. 29, F (1-6).

Kemal Efendi.[519]

This reply increased the tension between the *Ordu Sihhiye Riyaseti* of the 3rd Army and the Red Crescent Society and in the end; the Directorate of the Sanitary Office had to intervene in order to settle the matter. For this purpose, in a confidential telegram sent by Süleyman Numan Bey to Tevfik Salim on March 19, 1915 (March 6, 1331) the Directorate tried to act more prudently. Süleyman Numan, in this telegram, indicated that the armed forces had given physicians to the Red Crescent Society and therefore it would not be "weird" if they were reclaimed; thus he deemed the preservation of the cooperation between the army and the Red Crescent Society important. On the other hand, he found the demand of increasing the capacity of the hospital of the society to 500 beds appropriate and declared that the army should insist on the matter and that *Darülmuallimin* and *Sultani Mektebi* be allocated to the hospital for the purposes of enlarging the same.[520]

Upon receiving this letter, Tevfik Salim allocated the Sultani Mektebi to the Red Crescent Society and demanded that they increase their beds to 500, but different from the statements of Süleyman Numan, he took the physicians he had demanded and sent them temporarily to hospitals in need of physicians.[521] It is further understood from these correspondences that the Ordu Sihhiye Riyaseti of the 3rd Army was vested with broad authorities in the region and that Tevfik Salim held the decision-making mechanism in his hand, whereas the letters of the *Sahra Sihhiye Dairesi* were of a more advisory nature.

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[519] ATASE, Kls no. 2975, D no. 29, F (1-9).

[520] ATASE, Kls no. 2975, D no. 29, F (1-4).

[521] ATASE, Kls no. 2975, D no. 29, F (1-5).

Another arrangement made was on the physician personnel in the hospitals. Due to the fact that many physicians lost their lives due to the epidemic diseases like typhus, *humma-yi racia* and dysentery, the hospitals were urgently in need of physicians. In fact, it was planned that the physicians who had caught typhus should be sent home for a change of climate due to medical reasons and that physicians from Istanbul should be appointed in their stead. Nevertheless, since such an application under circumstances in which the epidemic diseases were continuing in an aggravated manner would cause further spread of the diseases and thus death of half of the physicians who would be newly-appointed, this decision was abandoned. Since those who contracted the disease developed immunity towards it, it was decided that under whatever circumstances, the medical staff should spend their convalescence periods on location and should continue their posts. This hard decision, which seemed like unjust to most of the physicians in the region, most probably saved many physicians' lives. After this decision, the physicians then working in the region were redistributed based on the need.[522] For example, a serious need for both hospital and medical personnel arose in Konya due to an increase in cholera and typhus and therefore the Red Crescent Society Hospital of Konya, which had been previously sent to Sivas for medical support, was recalled.[523] For the medical care of the patients in Sivas and its environs, a physician who had been working in the 3rd Army was appointed to the 10th Corps in this area and furthermore, upon the demand of the *Ordu Sihhiye Riyaseti* of the 3rd Army, fifteen physicians from Istanbul were sent to Sivas, Zara and Susehri. On the other hand, it was demanded that all physicians and medical students who were working in the

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[522] Saglam, p.16.

[523] ATASE, Kls no. 2975, D no. 29, F (2-4).

hospitals of Erzincan and under the orders of the Red Cross Society be sent to Konya.[524] Besides these modifications, with a newly-enacted arrangement, a physician was appointed for each regiment and two physicians were appointed to each medical company and mobile hospital. Furthermore, for battalions of storage, physicians were asked from Istanbul and in accordance with this demand, forty-four physicians left Istanbul for their posts in the 3rd Army.[525]

Meanwhile, it is seen that some new arrangements were made with regards to the health personnel in Istanbul. The conditions of war in 1915 forced the *Sihhiye Müdüriyet-i Umumiyesi* to adopt these arrangements since the opening of a new front in Çanakkale when the war was going on the Caucasian and Channel Fronts and a major increase in epidemic diseases all over the country all took place in this year. These conditions augmented the need for physicians and medical personnel more. Since the medical staff, as well as the military staff, had many casualties as of the beginning of the war, the *Sihhiye Müdüriyet-i Umumiyesi* had to seek new solutions in this respect. A new organisation was forthwith founded under the name of Temporary Organisation for Contagious Diseases (*Emraz-i Sariye Muvakkat Teskilati*) for providing health staff that would especially fight against the epidemic diseases. A circular was publicly announced for the employment of temporary sanitary officers. In accordance with this circular, all surgeons and small sanitary officers,[526] whatever their areas of specialisation were, should apply to the relevant

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[524] ATASE, Kls no. 2975, D no. 29, F 1.

[525] Saglam, p.16.

[526] Small sanitary officers were vaccination officers trained to administer the vaccine developed against smallpox to the public. In the year 1910, teachers sent to villages and mid-wives were also taught how to administer the smallpox vaccine. In the year of 1912, in order to train these officers, the School for Medical Sergants (*Sihhiye Çavusu Mektebi*) was opened by *Meclis-i Umur-u Tibbiye-i Mülkiye* and *Sihhiye-i Umumiye*. One year after, its name was changed to the Small School of Hygiene Officials (*Küçük Sihhiye Memurlari Mektebi*) and this school continued its education until

authorities. It was planned that all sanitary officers called on duty would be trained and sent to the areas where the epidemic diseases were widespread. However, the number of those who applied to the relevant authorities was not sufficient to satisfy the need, whereupon it was decided that the military sanitary units should be applied and literate sanitary officers should be trained for a certain period and then be commissioned. The implementation was forthwith started after this decision was taken and Mahir Bey, the Deputy Director of the Sanitary Office (*Sahra Sihhiye Müfettis Vekili*) commissioned 500 sanitary officers in order to work under the *Sihhiye Müdüriyet-i Umumiye*. Therefore an institution that would help in the preservation of the overall health of public and army was founded and temporary sanitary officers who had been trained in epidemic diseases were employed in different parts of the country[527] Yet it cannot be said that the organisation found military sanitary officers in sufficient number to satisfy the need in the struggle started all over the country. Thereupon, a new decision was adopted by the Sihhiye Müdüriyeti on August 1915, which stipulated that the military service duties of the small sanitary officers who were born between 1893 and 1896 (1309, 1310, 1311 and 1312) should be postponed and these officers should be commissioned in the struggle against the epidemic diseases in Anatolia.[528] Even the vaccination officers were asked to be included under this scope; nevertheless upon the declaration from the relevant authorities that the deferment of their drafts could not be made, this decision was abandoned. [529] After this arrangement, taking into account that the oncoming

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1920. Osman Ergin, *Istanbul Tip Mektepleri Enstitüleri ve Cemiyetleri* (Istanbul: Osmanbey Matbaasi, 1940), p.54.

[527] ATASE, Kls no. 2422, D no. 46, F. (1/7 46).

[528] ATASE, Kls no. 2422, D no. 46, F. (1/7 32-3 and 45-3).

[529] ATASE, Kls no. 2422, D no. 46, F. (1/7 44-2).

winter would increase the epidemic diseases, the temporary sanitary officers were tried to be sent to the cities on the routes of the armies as soon as possible.[530] Region of the 3rd Army was one of the places where the organisation was intensively in touch.

Disinfection Precautions

Since typhus is a disease that spread through lice, extermination of lice was imperative during the struggle against the disease. Since lice were widespread throughout the country, first of all the newly-enlisted soldiers were to undergo strict medical examination and be disinfected. Furthermore, it was necessary that a continuous control and disinfection mechanism be established in the detachments. Especially, baths of the soldiers, cleaning of their clothes and their medical examination were very important during the time of war due to the fact that it was easy for the soldiers staying together in crowded places far from the hygienic conditions to be infected with lice and to disseminate the same to their detachments, transfer areas and the public. Since the above-mentioned arrangements could not be properly complied with at the beginning of the war, severe outbreaks arose especially among the units of the 3rd Army. It was not easy to fight typhus under these circumstances. All of the hospitals in the region of the army were full and congestion was experienced. Furthermore, sufficient disinfection means were not available, which made the struggle against the disease almost impossible. In this regard, a comprehensive operation against lice was decided to be undertaken in order to prevent typhus and to avoid its spread. Therefore, the relevant parts of the sanitary

[530] ATASE, Kls no. 2422, D no. 46, F. (1/7 46).

orders circulated among the soldiers of the German Eastern Army were translated into Turkish and sent to the army units as legislation under the title of Guidelines for the Struggle against the Lice.[531]

After these guidelines were announced, it was understood that as in many previous applications, they were translated into Turkish without making any modifications and that they did not include any realistic solutions for the Turkish army and therefore were not applicable. In the legislation, besides applications of medications like petrol and balsamum peruvianum dressings, ater match and mercury ointment, the use of five percent soapy cresolum for the clothes and personal belongings many times with the necessary due diligence was recommended for the destruction of the lice.[532] Despite the fact that they presented medically realistic solutions, the application of these recommendations were impossible in the Turkish army where the soldiers were unable to find clean water, let alone medication or soap. Therefore, these guidelines were of no effect in the fight against lice. Nevertheless, some inventions in 1915 succeeded in the struggle against the lice and therefore typhus.

One of the inventions with regards to disinfection was Abdülkadir Lütfi (Noyan) Bey's disinfection method by means of field furnaces. This method, which was used for the first time on March 3, 1915 (February 18, 1330) during the typhus spread in Kandira workmen battalions, was accepted in almost all armies within a short time. Abdülkadir Lütfi Bey, who was commissioned in the struggle against typhus in Kandira, thought to use the bakeries as sterilisation furnaces and gained a major accomplishment by making this application together with the bath tents. The

[531] "Bitlere Karsi Mücadele Talimatnamesi," trans. Fahri Pasa, *Ceride-i Tibbiye-i Askeriye* 9 (April 1332), p.214.

[532] ibid, p.215.

typhus spread among the military units in Kandira was controlled within a short time, like ten days.

In the disinfection with heat, the furnace was heated up to 150-160 degrees centigrade[533]; after the fire was removed from the furnace, all of the personal belongings of the soldiers were made into bundles and put into the furnace onto wet bags placed previously. Afterwards, the lids of the furnace were closed and the personal belongings were kept about 20-25 minutes into the hot furnace. Since all of the lice in the personal belongings died at the end of this procedure, the desired result was attained. While this procedure was going on, the soldiers bathed in the bath tents erected near the furnaces. It was imperative that the soldiers whose personal belongings had been disinfected and who had taken baths should not be allowed be in the same place with those who had not yet undergone the procedure.[534]

When cleaning of the clothes and personal belongings proved to be successful, Abdülkadir Lütfi Bey, when he returned Istanbul, presented a report explaining his work to the Sahra Sihhiye Müfettisligi and proposed that the furnaces could be used in places where disinfection means were not available. The Directorate prepared a furnace project and proposed the implementation of this method to all units of the army via a pamphlet entitled Sanitation Furnace with Hot Air Circulation (*Sicak Hava Cereyaniyla Tathir Firini*).[535] Therefore, as of the spring of 1915, the furnace method began to be used in all units of the Ottoman army in an extensive manner.

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[533] Since most of the time there was not a thermometre to measure the heat, a white paper used to be placed into the furnace and waited until it turned yellow, and in this way the heat was fixed. If the paper turned black, it was understood that the heat was too high and therefore it was decreased by keeping the lids of the furnace open. It was highly important to fix the correct heat in order not to burn the personal belongings to be disinfected.

[534] Noyan, pp. 39-41.

[535] *Sicak Hava Cereyaniyla Tathirat Firini* (Dersaadet: Matbaa-i Askeriye, 1332).

Disinfection with field furnaces was widely implemented in the units of the 3rd Army, where typhus was prevalent. Disinfection furnaces and bath tents were erected especially in transfer and accommodation places of the soldiers, training units and other places where congestion was seen. In places where no furnace was available, it was possible to dig out the soil in slopes and build furnaces and to do disinfection in the same manner. The mechanism of oven consisting of a clay-lined pit or a large earthen jar buried under the soil, which was used to bake bread in some villages, could also be used for disinfection.[536] This method of disinfection was widely used in Iraq and on the Çanakkale Fronts.

This disinfection mechanism, which could be built and used quite simply, was an important invention for the units under difficult conditions, for the extermination of lice was an obligation in the struggle against typhus and it was impossible to accomplish this with the mobile sterilisation machines, which were very few in number. The mobile sterilisation machines could be moved to only certain places. For example, in mountainous areas these devices could not be used in the midst of the war. As such, two mobile sterilisation machines were broken many times during transportation to the front from Erzurum in the winter of 1914-1915 and therefore never reached the intended places. Since the disinfection furnaces could be easily built and repaired with the means available almost everywhere, they were advantageous for the sanitation. Nevertheless, there were some negative parts of this application. When the temperature of the furnace could not be adjusted, the clothes could burn and disintegrate, which caused problems in implementation. Therefore some units hesitated to use this method. Yet the disinfection with furnace was

[536] Saglam, pp.83-85.

applied until October 1915 and resulted in a victory, though not a complete one, in the struggle against the lice.[537]

Soldiers, who were considerably distressed by the lice also found some unique disinfection methods in order to get rid of them. They earthed their clothes and personal belongings and developed a heap and then made a hole on top of this heap and waited. Within a short time, the lice, unable to breathe, started to come out of the hole. Upon understanding that all of the lice abandoned the clothes or personal belongings, they were taken out of the ground and worn again. Though one could get rid of the lice with this method, nits, lice eggs, neither died nor went away. Therefore, although this method provided some relief to the soldiers, it was not a permanent solution. Even so, this method was included in the military medical history literature as a different application in the struggle against the lice.[538]

The invention that provided the best and final solution to the problem of disinfection was, however, the steam box. This device, designed by Dr. Ahmet Fikri (Tüzer) Bey,[539] who was Sivas Logistic Provisioning Troop Position Physician-in-Chief (*Sivas Menzil Mintika Sertabibi*) in 1916 was a simple but effective equipment. Ahmet Fikri Bey informed the *Ordu Sihhiye Riyaseti* of his invention in 1916 and proposed its usage. In order to make this box, a cauldron, wooden boards and nails were enough. First of all, the oven was prepared and the cauldron was placed in a proper manner and the upper part of the oven was again built flat. The box had to be made up of thick and interlaced wooden boards of two metres long, one metre wide

[537] Dr. Tevfik Salim, "Harb-i Umumi'de 3 ncü Ordu'da Yapilan Lekeli Humma Mücadelesi," *Askeri Tibbiye Mecmuasi* 4 , year 1 (March 1338).

[538] Özbay, p.174.

[539] Ahmet Fikri (Tüzer), graduating from the Military School of Medicine in 1905, he worked in some institutions as a physician and acted as the undersecretary of Refik Saydam when he was the Minister of Health. "Ahmet Fikri Tüzer", *Istanbul Seririyati* 8, Year 14 (August 1942), pp. 50-51.

and one metre high. A gap was left between the cauldron and the box for steam and before usage, ¾ of the cauldron was filled with water and the clothes to be disinfected were, not in a squeezed manner, placed in the box, the lid was shut and the oven was lit. Clothes that were subject to the steam for half an hour were taken out of the box. Lice and nits were destroyed under low steam pressure. In this practical and highly effective disinfection procedure, the troubles encountered with the hot air furnaces were also eliminated.[540] Furthermore, it was quite easy to build a steam box. It was possible to find the necessary materials almost everywhere. It could be built with wooden boards, nails and a cauldron that could be found even in the areas of deprivation by anyone who could do some carpentry work. Its repair was easy, no risk of burning or breaking of the materials was present and its cost was 1/50 of that of a mobile sterilisation machine. Due to all of these characteristics, the steam box was officially accepted by the army and started to be used in all detachments, medical institutions and civilians in the struggle against epidemic diseases. After a while, the steam boxes were preferred over the mobile sterilisation machines, which were difficult to move and to repair in the mountainous terrain of Anatolia for the fight against lice in almost all regions of the 3rd Army. [541] This disinfection device could also be built in different sizes and mobile sanitation tools that could be carried by pack animals were obtained. The 3rd Army was liberated from its trouble with lice after the invention of this device.

In the medical report for March submitted by Server Kamil, Deputy Chief of the Medical Office of the Army (*Sihhiye Reis Vekili*), to the Ordu Sihhiye Riyaseti, it was indicated that the steam boxes were being used frequently at the front.

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[540] Saglam, p. 85.

[541] Osman Sevki, "Iki Bilanço", *Ceride-i Tibbiye-i Askeriye* 50-51, year. 50 (April – June 1337-1921), pp. 89-90.

Accordingly, it was reported that sixty-three steam boxes and seventy-one furnaces with a capacity to disinfect the clothes and personal belongings of 12,500 persons were built each day at the front. It was also emphasised that eighty-nine steam boxes, fifty-three furnaces, twenty-two sterilisation machines and sulphur and formalin chambers were active behind the front for disinfection. The number of disinfections made was recorded in monthly sanitary reports as of February. The figures incorporated in these reports were as follows:

Table 5:

Disinfection Procedures Conducted in the Army in 1917

Month	**Disinfection Operations Made**
February	183,815
March	256,894
April	308,676
May	299,012
June	164,709
July	238,862
August	180,591
September	189,340
October	161.715
November	155,537
December	No certain figure. It was merely explained that the disinfection operations continued
January	119,666

As seen in the figures, with application of the newly-invented methods, disinfection procedure showed improvement as of 1917 and the clothes and personal belongings of 2,361,471 persons were cleaned in thirteen months between 1917 and 1918. As understood from the reports, on August 1917, soldiers of the First

Caucasian Army took baths and their clothes were disinfected three times.[542] This indicates the truth underlying the accomplishment attained in the struggle against typhus and the dimensions of the struggle.

The successful results obtained from the use of steam boxes gave the encouragement to use the same method in different ways and thus to develop the method. For instance, mobile sanitation platoons (*seyyar tathir müfrezeleri*) were established in order to conduct disinfection during advancement. In these platoons, a mechanism made up of a mobile steam box, a cauldron and a medicine chest was carried by a pack animal. The disinfection materials and trowel, etc. that were used to build the oven were in the medicine chest. The oven was built at the location where the disinfection was decided to be made and the mobile steam box was unpacked and placed onto the oven and the disinfection procedure was initiated in a short time like one or two hours. After the procedure was completed, this mechanism could be dismantled and carried somewhere else. The army could be protected from lice and diseases during the highly difficult advance made by the 3rd Army in the winter of 1917.[543] Towards the end of the war, each battalion and unit of the 3rd Army was given a mobile sanitation platoon. Mobile sanitation platoons were used in the civil struggle against diseases throughout the First World War as well.

Another implementation of the disinfection mechanism was the mobile steam barrel. This device, developed by Dr. Hüseyin Bey, Physician-in-Chief of Tokat Hospital, was made up of a barrel placed onto two wheels as a mobile disinfection machine, which was moved by a mule or an ox. Its difference from the mobile

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[542] Saglam, p.205.

[543] Dr. Tevfik Salim, "Harb-i Umumi'de 3 ncü Ordu'da Yapilan Lekeli Humma Mücadelesi," *Askeri Tibbiye Mecmuasi* 4 (March 1338).

sanitation platoon was that it could start working immediately. Nevertheless, the transfer of this mechanism was difficult in mountainous terrain and this limited its usage a great deal.[544]

Another disinfection machine prepared to be used under difficult conditions was the steam cauldron. Dr. Ahmet Lütfi (Aksu) Bey, Hygiene Consultant of 4th Corps 2nd Army, invented this device to be used in areas of deprivation where sterilisation machines, furnaces or even wood boards could not be found. The steam cauldron was a cauldron with a grid in it. Ahmet Lütfi Bey, who was said that a whole company could be disinfected with this mechanism in seven days, alleged that typhus could be prevented by means of providing a cauldron to each company.[545]

Upon the improvement of the disinfection methods, the struggle against the epidemic diseases could be continued more successfully. Sanitation houses, which were fundamentally steam boxes, were built in many places and successful operations were made especially against typhus and *humma-yi racia*. Tevfik Saglam indicated that each district and sub-districts should have one sanitation house whereas the bigger centres should have more than one in order to banish lice from the 3rd Army totally and suggested that 177 sanitation houses should be established in the region within a year. 160 sanitation houses were built in the region in ten months. In each of these houses, there were a couple of steam boxes, bathing places and disinfection chambers with formol or sulphur. In accordance with the information supplied by Tevfik Saglam, the participation of these houses in the overall struggle was considerable. The most evident indicator of this was that the clothes and

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[544] Saglam, p. 87

[545] Ahmet Lütfi (Aksu), "Lekeli Hummaya Karsi Mücadele," *Ceride-i Tibbiye-i Askeriye* 37-38 (May 3, 1333), p.37.

personal belongings of 662,167 persons were disinfected within ten months.[546] Important steps were taken for the improvement of the health organisation of the army with these applications.

During the struggle, the execution of which began in an orderly fashion, the necessary precautions were taken whenever a typhus case was seen in a particular place and the physician attending the patient reported both to the sanitary chide he was attached and to the Ordu Sihhiye Riyaseti with an urgent telegram. The physician had to notify the source of the disease, therefore the place where the disease originated could be detected and controlled. Furthermore, soldiers to be transferred and patients underwent disinfection everywhere they passed on their ways and medically examined in every station in which they arrived and thus it was seen whether the lice had been exterminated in the previous station or not. This continuous control did not provide anyone the possibility of hiding the truth. For example, if the disinfection of the soldiers was not made properly in Sivas, the soldiers could be determined to be infested with lice upon their arrival to Zara and this fact could be communicated with the army immediately. If the disease was seen anywhere on the transfer line, the source could be indicated as Sivas and therefore the truth could be revealed.[547]

Bacteriologic Studies

With the warming of the weather in May 1915, soldiers of the 3rd Army were instructed to move to tents so the hospitals and barracks could be disinfected. The

[546] Dr. Tevfik Salim, "Harb-i Umumi'de 3 ncü Ordu'da Yapilan Lekeli Humma Mücadelesi," *Askeri Tibbiye Mecmuasi 4* (March 1338), pp.101-102.

[547] ibid, pp.100-101.

patients who came to the hospitals were admitted only after their clothes had been cleaned. Furthermore, small performances were started to be held in Erzurum every fifteen days and the military physicians were supplied with information on epidemic diseases and simple bacteriologic analysis methods. Also, an educational program called Complementary Courses on Epidemic Diseases (*Emraz-i Intaniye Tekamül Dersleri*) began to be given to the physicians from September 1915 in Erzurum. These courses were given by *Ordu Sihhiye Reisi* Tevfik Saglam four days a week. In addition, physicians in groups of fifteen persons were coming to Erzurum group by group to attend practical bacteriology courses given by Server Kamil Bey.[548]

One bacteriology laboratory was founded in Bayburt, Trabzon and Erzincan Hospitals each, whereas six were established in Erzurum and three were established in the mobile hospitals at front, i.e., in total thirteen bacteriology laboratories were activated. In these laboratories, blood examinations, blood cultures, urine and all other kinds of bacteriologic examinations were made and vaccines for typhoid fever, paratyphoid, cholera and smallpox were prepared. Furthermore, a small sanitation factory was established in which materials that were needed by the hospitals, like sheets, quilts, nurse uniforms, cotton gauze, and calico bed ticking were manufactured and roasted meat was prepared for winter supplies.[549]

One of the biggest bacteriologic developments of the First World War was the typhus vaccine. Even though it was known that the disease was spread by lice, its effective factor had not yet been found. The persons who discovered the vaccine were Gülhane Professors Resat Riza (Kor) Bey and Mustafa Hilmi Bey.[550] These two

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[548] Saglam, p.142.

[549] ibid, p.146, 148.

[550] Mustafa Hilmi (Sagun) (1880-1967). Graduating from the Military School of Medicine in 1905, Msutafa Hilmi Bey first became the head of the internal diseases clinic and then the chief of

physicians experimented the vaccine they developed on monkeys and attained positive results and then presented their vaccine reports to the General Directorate of the Sanitary Office on April 25, 1915 (April 12, 1331) under the title of "Vaccine Experience against Typhus" (*Lekeli Hummaya Karsi Asi Tecrübesi*). It was decided that this report, which was read out in the Grand Assembly of Health (*Meclis-i Âli-i Sihhiye*) should be published in Health Periodical (Sihhiye Mecmuasi). Resat Riza Bey administered the vaccine to himself, too.[551]

Administration of the typhus vaccine in the army took place in March.Tevfik Saglam, who was appointed as Ordu Sihhiye Reisi of the 3rd Army, before leaving for his post, talked to Dr. Resat Riza Bey on the brutal typhus spread in the region of the 3rd Army on February 3, 1915 and Resat Riza Bey, during this conversation, mentioned the vaccine he had recently developed and proposed its administration to 3rd Army. Tevfik Bey deemed this proposal appropriate, prepared the vaccine as described and administered the same for the first time to Dr. Ihsan Arif, Dr. Tevfik Ismail (Gökçe), Dr. Haydar Cemal, Dr. Selahattin and Dr. Süleyman Ali and four staff on March 28, 1915. It is known that this vaccine was used by other physicians in the region of the army.[552] The vaccine was administered to 510 persons in Erzurum, 130 persons in Bayburt, 156 persons in Sivas and 805 persons in total together with the previous applications.[553]

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bacteriology in Gülhane. He provided important services like preparing the vaccines used against diseases like cholera and typhoid fever. In 1921 he both resigned from his military post and retired. He worked as the Director of Sivas Health Institutions (Sivas Sihhi Müesseseleri) in 1922, Director of Ankara Bakteriyolojihanesi in 1930 and Director of Refik Saydam Hifzissihha in 1932-1936. Unat, *Osmanli Imparatorlugu'nda Bakteriyoloji ve Viroloji* (Istanbul: 1970), pp. 92-93.

[551] Ekrem Kadri Unat, "Birinci Dünya Harbi'nde Türk Ordusu'nda Tifüs Savasi", *Cerrahpasa Tip Fakültesi Dergisi* 20 (Istanbul 1989), p.261.

[552] see Server Kamil (Tokgöz), *Kafkas Cephe-i Harbinde Lekeli Humma* (Sivas: Matbaa-i Vilayet, 1332).

[553] Saglam, p.88.

The typhus vaccine was also administered to the units of the 6th Army by Abdülkadir (Noyan) Bey. Abdülkadir Lütfi Bey, who took blood from the typhus patients at the Jewish School in Baghdad and prepared the vaccine as per the technique of Resat Riza Bey, administered these vaccine first of all to the Chief of General Staff (*Erkan-i Harp Reisi*) Kazim Karabekir, other general staff of the army, physician-in-chief of the hospital and all staff and obtained successful results. Afterwards, all physicians and pharmacists of the 6th Army and twenty nurses accepted to be vaccinated. The vaccine was especially applied in Kutül-Amara Front. Only eighteen persons out of 426 persons who had been vaccinated caught the disease, which clearly shows the achievement.

The Germans who fought side by side with the Ottoman during the First World War did not accept the vaccine, which they had neither heard of or seen before. Abdülkadir Lütfi Bey proposed that the Commander of the Army, Marshal Von der Goltz, and other German staff have the vaccine administered during the days when typhus epidemic raged. The Germans did not accept this proposal due to their disbelief in the vaccine or most probably in the Turkish medicine. Soon after this incident, Von der Goltz and Dr. Oberndofer contracted the disease and lost their lives.[554] The Germans, acknowledging the positive results of the vaccine, started to use the same in the forthcoming years.

The typhus vaccine was a protective vaccine against the kind of typhus passed by lice. It was administered in the Ottoman armies for the first time in the world. The vaccine therefore should have been regarded as a development recorded in the world's medicinal literature but due to reasons unknown, no such attempt was made. A similar vaccine application study was made by Dr. Charles Nicolle in 1916

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[554] Noyan, pp. 52-53.

and by Dr. Neukirch, who learnt the vaccine during the period when he had worked in the Ottoman army, published an article on the vaccine in 1917. These two men are regarded as the inventors of the typhus vaccine.[555]

The typhus vaccine invented by Dr. Resat Riza was an important improvement in medicine, but the vaccine itself had some deficiencies. First of all, the vaccine could only be produced by taking blood from typhus patients while their disease was at its most feverish level. Therefore, in order to produce the vaccine, the physicians were in need of a typhus patient and with the blood taken from a single patient, only two or a maximum of four persons could be vaccinated. Thus, the vaccine could only be administered to those who were in direct contact with the patients, such as health personnel, during the time of the spread. Since the administration method of the vaccine did not allow it to be applied to more people, it brought a limited advantage in the treatment of the disease. The vaccine also had some medical deficiencies.

Another study on the typhus vaccine was conducted by Dr. Hamdi Suat Bey. This vaccine, obtained from the blood drawn separately from patients in the most feverish period of the disease and those who were in the convalescence in Erzincan, which was kept in ice for 24 hours and then mixed, was applied in the Ottoman army and successful results were attained.[556] Dr. Hamit Osman Bey also started to inject the blood after drawing it and therefore some caught the disease and died.[557] These vaccination studies conducted were also noteworthy in that they indicated the information levels of the Turkish physicians in bacteriology. These studies also

[555] Unat, p.131.

[556] Saglam, pp. 88-89.

[557] Unat, p.130.

underlined the fact that they had the scientific competence and self-reliance to apply the vaccines they produced via the scientific studies under highly difficult circumstances.

Migrations as a Basis for the Epidemic Diseases on the Caucasian Front

Many people migrated from the Caucasia and Eastern Anatolia during the First World War. Thousands of people, running away from Turkish-Russian armed conflict on the Caucasian Front, skirmishes between the Turks and Armenians at the borders, from the Georgian-Armenian disagreements and from the inner turmoil in Azerbaijani Republics, fled under harsh conditions. When this movement was combined with other calamities like war, starvation and diseases, many dramatic events, maybe the most tragic ones of the First World War were experienced there. The Sublime Porte, which had been unable to prepare its army in the short mobilisation period, could not provide the humanitarian aids to these people, who were almost a million. *Muhacirin Müdürlükleri* or *Muhacirin Komisyonlari*, though they used their limited powers to the bitter end, were unable to reach even hundreds of refugees.

During this mass migration from both abroad (Russian Caucasian) and the inner parts of Turkey, the refugees had to pass through the hardest and the worst terrain in Anatolia. As indicated earlier, the mountainous lands, harsh weather conditions and highly broken roads of the region were worsening the already existent misery. Most of the refugees passed through the lands without proper roads on horse, donkey or mole back or, most of the time, on foot.

Russia deported almost a million Muslim and Kurdish minorities and forced them to migrate to Turkey between 1916 and 1918.[558] Since the refugees were migrating during war, they were passing the borders without any control and settling in places that they deemed suitable. It was impossible for the state to supervise these people or to keep statistics of them. Yet most of the refugees, fleeding from Caucasia came first to Kars and, by following the route of Samsun to the west and to the route of Van and Bitlis to the east, settled in appropriate places.[559]

In parallel with the advance of the Russians, the inhabitants of the places invaded by Russians were withdrawing with the army to eastern Anatolia. Since the withdrawal began in winter, these people had to travel in the worst conditions. Refugees from the eastern cities most of the time moved to south and took refuge in the cities of Mamuret-ül aziz (Elazig), Diyarbakir and Van. However, since the war was also being fought there, they came up against other major problems. Those who could risk longer journeys went to the west and middle Black Sea and middle Asia where they deemed as more secure. Therefore, Trabzon, Rize and Samsun in the Black Sea region became the centres where large populations of refugees settled. About ten thousand Muslim refugees from Caucasia settled in Erzurum. The state forced some ethnic groups to move to the inner parts of the country for security reasons. For example, Greeks living in Trabzon were transferred in groups to Giresun, Susehri, Ordu, Niksar over Mesudiye, Tokat and even to farther cities.[560] Similarly, Armenians were also forced to migrate to Syria, Lebanon and Iraq, which

[558] Emin, p. 248.

[559] Mc Carthy, pp. 219, 221.

[560] ATASE, Kls no. 2982, D no.72, F. (11-14).

were not war fields in those days, in accordance with emigration law (*tehcir kanunu*) enacted on May 25, 1915.[561]

The biggest migration took place when the inhabitants of Erzurum, Van, Diyarbakir, Elazig, Trabzon, Erzincan and Bayburt, which had been abandoned to the Russians, started to leave their hometowns in masses during 1916-1917. These people started to leave their houses in panic mostly on foot and tried to take refuge in the nearest regions. The *Muhacirin Dairesi*, which was affiliated to the Ministry of the Interior, trying to assist the migration, supplied them with aid materials in order to meet their basic needs. Nevertheless, most of them could not benefit from this aid. McCarthy, based on the records of the Ministry of the Interior, indicates that the total number of Muslim refugees who benefited from the state aid in eastern Anatolia was 659,000 in 1916. In a report of the Ministry of Immigration (*Muhacirin Nezareti*) prepared after this date, the number of Muslim refugees at the end of the First World War was reported as 868,962. Nevertheless, these are the figures recorded in the official registries. It is believed that the real number of refugees was well above them.[562]

Upon the inefficiency of the *Muhacirin Dairesi* in this big mass movement, the *Sihhiye Riyaseti* of the 3rd Army had to support the transfer, settlement, food supplies and health services of these refugees. Migration was being made on three main roads: to Samsun from the coast from Tirebolu and then to Çorum via the route

[561] This law, which was temporarily enacted on the date of May 27, 1915, was entitled "Temporary Law to Be Applied by the Armed Forces Against Those Who were Acting Contrary to the Practices of the Government During the Days of War"(*vakt-i seferde icraat-i hükümete karsi gelenler için cihet-i askeriyece ittihaz olunacak tedabir hakkinda kanun-i muvakkat*) and in this law, those who engaged in spying or treachery against the Sublime Porte were required to be sent away from the battlefield separately or in groups. This law was negotiated and accepted by the *Meclis-i Vükela* on the date of May 30, 1915 and was put into practice immediately. For the full text of the law, see Azmi Süslü, *Ermeniler ve 1915 Tehcir Olayi* (Ankara: Yüzüncü Yil Üniversitesi, 1990), pp. 111-181.

[562] McCarthy, pp. 222-223.

of Merzifon, to Tokat via the route of Siran, Karahisar and Niksar, and to Refahiye, Susehri, Zara, Sivas, Kayseri and Nigde.

It was imperative to control these migration routes since the dissemination centres of epidemic diseases like typhus, cholera, typhoid fever, etc. were exactly on them. No matter which strict precautions were taken in the places where these diseases were seen, it was not possible to engage in a thorough struggle without eradicating the problem at its source. Therefore, it was ruled that health stations and immigrant hospitals should be opened on the migration routes and that these routes should be continuously monitored and accordingly a plan was made. This plan, which was entitled "Plan for Health Review"(*Tetkikat-i Sihhiye Plani*) was submitted for the approval of *Sahra Sihhiye Müfettisligi* on August 1, 1916 (July 19, 1332).

In the plan, the routes on which the health stations were to be opened and the persons who would be stationed there were explained in detail. After the approval of the same, refugee stations were opened on the first route in Giresun, Ordu, Samsun and Merzifon; on the second route in Karahisar, Koyunhisar, Niksar and Tokat; and on the third route in Susehri, Zara, Sivas, Kayseri and Nigde. Successful physicians and inspectors who would monitor them were appointed to these stations.[563] Furthermore, for the treatment of the sick and weak refugees, hospitals for immigrants and refugees were established environs the immigrant stations. Sanitary inspectors were asked to record the needs of these hospitals in ledgers, to communicate these needs with Ordu Sihhiye Riyaseti and to inspect these hospitals frequently with panels consisting of military physicians.[564]

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[563] ATASE, Kls no. 2434, D no.110, F (13-5).

[564] ATASE, Kls no. 2982, D no.72, F. 13.

Whilst the refugees were given health services, the problem of starvation, which left them without any resistance against the diseases also had to be dealt with, for starvation was one of the biggest problems encountered during the migration. Since there was no institute commissioned to engage in the supply services to the refugees who were running away from the invaded cities, some of the refugees started to benefit from the supply services of the 3rd Army, which was naturally increasing the already existent foodstuff shortage in the armed forces. Many refugees who could not receive any foodstuff aid had to struggle against starvation on the roads or in the places where they took refuge. Most of them died from hunger. The administration of Migration (*Muhacirin Idaresi*) with its limited sources, was only engaged in transfer of the refugees and the distribution of the wage allocated by the government from the budget to the refugees. It cannot be claimed that these works were conducted flawlessly. Since the automobiles brought in from Germany were broken on the way, the transfer of the refugees was made on foot, whereas those who were not strong enough to walk were carried by human force. On the other hand, the wages allocated to the refugees by the state could not be distributed in a proper manner due to the difficulties raised by the Ministry of Finance.

In a report of the Ordu Sihhiye Riyaseti on October 1917, it was put forth that the inhabitants of Giresun, Karahisar and Sivas were suffering from a big supply shortage, that the people there were migrating to the coastal areas with their children hoping to find something to eat, that the refugees in this area had not been given their wages equivalent to the value of 1.5 kilos of bread for three and a half months had passed and that their situation was very bad indeed.[565] In a letter sent by the Sanitary Director of Trabzon (*Trabzon Sihhiye Müdürü*) to the Ordu Sihhiye Riyaseti in

[565] Saglam, p. 215.

December of the same year, it was indicated that since the refugees in Giresun, Ordu and Tirebolu had not been given their wages for three months, the misery they endured was in the last phase possible. This letter was forwarded to the commander of the army of the region by the Sihhiye Riyaseti and therefore the military authorities became involved in the matter. After a sharp warning telegram dispatched by Vehip Pasha, Commander of the Army, to the Fiscal Office, the cash in the safe in the office was distributed among the refugees.[566] Nevertheless, this simple issue exposes the negligence and weakness of the authorities towards the condition of the refugees. Such direct intervention of the military health staff into the migration issues caused tension between the civilian authorities and military authorities in many areas.

Starvation was not the only problem that the refugees faced during the migration. Epidemic diseases emerged in the area or other health problems that appeared due to starvation caused many casualties among them. There was no established civilian health institution that could solve the health problems of the refugees during this major mass movement. It was known that the *Sihhiye Müdüriyeti Umumiyesi* was not in the condition to overcome such an issue. As such, in medical examinations made on the refugees on the route of Sivas-Samsun, it was understood that most of them were sick and especially among the refugees settled in coastal areas like Rize, Of and Büyükliman, smallpox was mainly seen. Since the authorities did nothing on this issue, a letter was sent to Ordu Sihhiye Riyaseti of the 3rd Army, which put forth that the refugees, who freely wandered between villages and even entered into and left cities freely and continued their journeys without stopping at any of the sanitary stations, constituted a grave danger and assistance was asked from

[566] ibid, pp. 53-54.

the armed forces.[567] Similarly, it was understood that Greek groups who were transferred from Trabzon to the inner parts of Anatolia stayed in houses allocated to them on their way. Since the necessary precautions were not taken, these houses became sites of epidemic diseases. When it was taken into account that the public and soldiers were using these houses, it was revealed that the surrounding areas and even the whole country were under a serious threat. Under these circumstances, the Commander of the 3rd Army had to undertake the duty to contact the commanderships on the transfer route, to clean these places and to take the necessary precautions immediately.[568]

The situation of different ethnic groups transferred to Amasya in order to be settled in there was not very different. In a telegram sent to Sivas, it was stated that these refugees, who were almost 400 in number, had been waiting in Amasya for months without any proper food and in miserable conditions and that emergency precautions for settlement of this problem were forthwith awaited in this regard.[569]

Due to these and many other similar situations, the armed forces began to work in cooperation with the *Muhacirin Idaresi* as of June 1916 and started to deal with the health problems of the refugees. Also, in those days, the main struggle against epidemic diseases was being made in the army. Nevertheless, unilateral precautions were not enough to destroy the epidemic diseases because no matter how clean the soldiers were, if the sanitation of the public could not be realised, it was impossible for the soldiers who were in continuous contact with them to be rid of the diseases completely. Furthermore, thousands of refugees who were constantly

[567] ATASE, Kls no. 2982, D no.72, F. 3.

[568] ATASE, Kls no. 2982, D no.72, F (11-13).

[569] ATASE, Kls no. 2990, D no. 118, F. (1-37).

moving carried the diseases everywhere they went and thus aggravated them. The same threat was existent also for the civilians. Soldiers who were transferred behind the front or the deserters spread diseases to the public. Therefore, the most effective method was to ensure that the precautions to be taken would not make any discrimination between soldiers or civilians, but would comprise both parties. Even though efforts were made to establish different organisational structures in the health services ever since the Balkan Wars, this issue was still a problem for the state. As a result, since it was understood that this problem could not be solved with sanitary commissions or sanitary offices established in centres and provinces, the *Sihhiye Müdüriyet-i Umumiyesi* transferred its duty of fighting against the epidemic diseases among the civilians to *Ordu Sihhiye Riyaseti* of the 3rd Army on January 7, 1917. After this date, the struggle against the epidemic diseases was to be implemented in the cities of Ankara, Sivas, Erzurum, Trabzon and in the districts of Nigde, Kayseri and Canik by the *Ordu Sihhiye Reisligi* of the 3rd Army.

The *Sihhiye Riyaseti*, which was entrusted with the duty of struggling against the epidemic diseases, first of all, started the preparations for a detailed project. For this purpose, an inquiry schedule was prepared on all works carried out on this issue up to that date and sent to the sanitary directorates. Afterwards, *Ordu Sihhiye Reisi* Tevfik Salim Bey prepared a project for the struggle against the epidemic diseases based on the information collected via these inquiry schedules and this project was submitted to the approval of the *Sihhiye Müdüriyet-i Umumisi* on February 24, 1917. Upon approval of the project, the application started immediately.

This project was the most realistic and effective struggle plan that had ever been prepared with regards to the struggle against the epidemic diseases, for it was prepared based on the feasibilities and in accordance with the conditions of the

region. Furthermore, the steps to be taken were planned to the last detail and projected separately. First of all, how the struggle had been made up to that date and why no significant accomplishment had been obtained were explained and the things to be done were listed. Afterwards, which diseases fell under the scope of the struggle, diagnosis of the same and the struggle against them, treatment methods, from where the medication or materials used against the disease would be supplied and how they would be used, were explained with instructions. Also, how the personnel who would be employed to work in the struggle would be obtained and from the director of sanitary to the last sanitary officer, who would be responsible from which duty were also determined in the project in detail.[570]

The application of the project started in March. The diseases included under the scope of the struggle were determined as those that had been seen as the most aggravated spreads in the region. Accordingly, first of all, an effective struggle against typhus, *humma-yi racia* and smallpox would be implemented and then cholera would be monitored and a struggle mechanism would be prepared, medical examinations and vaccination would be conducted in regions where typhoid fever and paratyphoid had been detected and the basis of an elemental struggle, which would last the forthcoming years, against malaria and syphilis would be established.[571]

The plan would be executed on a quadrupled basis: first, ensuring that the intelligence on the diseases was received without any defects and in a flawless manner; second providing the necessary installation and mechanisms necessary for the struggle based on the information received; third supplying the health staff who

[570] For the details of the project, see Saglam, pp. 252-325.

[571] ibid, p.256.

would conduct these works, and fourth, training the health staff and providing them with the necessary information on their duties. It was imperative that feedback be received in order to acknowledge whether the struggle was being executed successfully or not. Therefore, receiving information on the results of the works would be deemed highly significant.

Before starting the implementation of the project, sufficient health personnel was attempted to be provided. Staff in sufficient numbers was needed in order to implement such a comprehensive project in such a big region. Since it was known that the state was not in the position to send physicians or health officers, state and municipal physicians were sought for the project. Furthermore, eighty-four military physicians were commissioned in the struggle as a part of their military duties. The struggle against the epidemic diseases would be executed by state physicians or municipal physicians in their stead in districts, state physicians in *liva*, and by directors of sanitary in autonomus *liva* or cities. The aim was to have a physician in each district and twenty-four physicians more were needed. For this purpose, fifteen physicians were requested from Istanbul; however, Istanbul could only send five physicians. In order to cover the vacancy in this position, it was planned to give more comprehensive duties to small sanitary officers, but, the number of sanitary officers was not enough, so it was decided that the medical companies in Tokat would be trained for six months as sanitary and vaccination officers.[572]

In order to receive the intelligence on epidemic diseases correctly, "notification document for epidemic diseases"(sâri hastaliklar ihbariye varakasi) and "vaccination document"(asi vesikasi) would be kept in all health centres of residential areas and even the smallest notices received on epidemic diseases would

[572] ibid, pp. 257-258.

be evaluated and recorded in these documents by the low level sanitary officers. *Muhtar* (elected head of the executive body of the village) gendarmerie, *imam* and clergymen were responsible for the notification of the diseases seen in the villages. These persons bore the obligation to inform the relevant district directorates of the diseases seen in their villages without any delay. It was planned to make use of eighteen laboratories available to the armed forces for the correct diagnosis of the diseases.[573] On the other hand, it was requested that a laboratory for the production of vaccine and for bacteriologic tests and a *daülkelp tedavihanesi* for treatment of the rabies seen in this region should be established in Sivas. In accordance with this plan, the Treatment House for Rabies and Smallpox Laboratory of Sivas (*Sivas Daülkelp Tedavihanesi ve Çiçek Asisi Darülistihzari*) was founded under the management of Dr. Sami Bey in 1917.[574] Furthermore, a sanitary depot would be attempted to be founded in each city and district under the orders of the directors of sanitary for the medication and sanitary equipment used in the treatment of patients whose illness had been diagnosed.

A new arrangement was about to be introduced on the disinfection procedure, which bore a vital importance in the struggle against the epidemic diseases. There was no disinfection means other than one fixed and eight mobile sterilisation machines. It was possible neither to purchase new ones nor to carry these machines to towns or villages under harsh winter conditions. Therefore, it was planned to build the steam boxes or sanitation furnaces used in the armed forces in each village and to

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[573] Saglam, pp. 261,263.

[574] This institute, which was established in 1917 in order to produce rabies and smallpox vaccine, was also used as a laboratory and became one of the significant centres where smallpox, typhoid fever, plague, etc.vaccines were produced for the armed forces during the Balkan Wars, the First World War and the national independence movement. Its name was changed as Sivas Health Insitutions (*Sivas Sihhi Müesseseleri*). For detailed information, see Unat, pp. 52-54.

open a sanitation house in each town or community district (*nahiye*) centre. Out of 177 sanitation houses planned to be built, 160 were activated within ten months.[575]

Thus, a comprehensive endeavour was started in the fight against the epidemic diseases that were endemic among the public. First of all, the transfer and settlement of the refugees began to be conducted under a definite plan in order to prevent the dissemination of disease. From that moment on, the refugees were directed to the location of Çorum, Yozgat and Kirsehir, which were determined as the settlement centres. Furthermore, the Commander of the 3rd Army sent a letter to the administrative offices (*mutassariflik*) in these cities and requested that the physicians should make their best efforts in the treatment and care of the sick inhabitants and refugees and that the civil authorities should ensure their settlement and supplies in the best possible way in order to prevent these "unfortunate people" to fall sick.[576] In addition refugee sanitary stations and hospitals were founded on the main roads during the transfer. In these institutions, refugees underwent medical examinations and their clothes and personal belongings were disinfected. For the sick who would continue their journeys, outpatient treatments like medication or dressing wounds were made, whereas those who could not possibly go on were admitted as inpatients and their treatment began. Furthermore, all of them were vaccinated with cholera and smallpox vaccines, without any exception, and the typhoid fever vaccine was administered to those who aroused the suspicion of the disease during the medical examination. The intervals between these vaccines, how many times and how they would be applied were included in separate guidelines that were sent to

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[575] Dr. Tevfik Salim, "Harb-i Umumi'de 3 ncü Ordu'da Yapilan Lekeli Humma Mücadelesi," *Askeri Tibbiye Mecmuasi* 4, year 1 (March 1338), p.101. ; also Saglam, p.298.

[576] ATASE, Kls no. 2990, D no. 118 42, F. (1-38).

each sanitary station. The applications were made in accordance with these guidelines.[577] For instance, in a letter sent from Sivas sanitary station, it was reported that all nineteen refugees who arrived at the station had been medically examined, their vaccines had been controlled and then fourteen of them had been vaccinated for cholera for the first time whereas two of them had been vaccinated with the same for the second time and seventeen of them had been vaccinated with the smallpox vaccine.[578] Similarly, in another letter sent to *Ordu Sihhiye Riyaseti*, it was indicated that 143 refugees who arrived at Çorum were resting in the guest house, that all of them had undergone medical examination and disinfection and had been supplied with food and that they had been vaccinated with smallpox vaccine and for the second time with typhoid fever vaccine.[579] The fact that there are many similar letters in the archives suggests us that the vaccination process of the refugees was conducted seriously and that the conditions of hygiene were improved considerably when compared to the previous periods. The refugees, who were settled in particular places, underwent the same struggle precautions included in the project together with the original inhabitants of these regions.

After the struggle started, the *Ordu Sihhiye Reisi* of the 3rd Army, Tevfik Salim Bey, prepared some reports that evaluated the results of the project. Accordingly, 23,363 patients had been admitted into the hospitals within a year and 6,013 of them had died. The health officers had visited 2,509 villages and recorded the epidemic diseases in their diagnosis documents. The number of typhus cases notified had been 1,794 with 434 fatalities. The number of persons who had caught

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[577] ATASE, Kls no. 2993, D no.136, F. 1.

[578] ATASE, Kls no. 2982, D no.72, F (4-8).

[579] ATASE, Kls no. 2990, D no. 118, F. (1-42).

humma-yi racia had been recorded as 322, with fourteen deaths. When the astringent spreads in the region are taken into account, one can say that these numbers must be well below the actual figures. The reason for that was explained as the negligence of the health officers in taking blood and sending them to the laboratories for analysis regularly. Within ten months, in 160 sanitation houses that had been established in the region, clothes and personal belongings of 662,167 persons had been disinfected.[580] These figures show that a big struggle fit to the purpose was being made in these sanitation houses.

On the other hand, it was understood that the sanitation operations in the villages were not still at the desired level at the end of the first year. The fact that the mechanism of the oven consisting of a clay-lined pit or a large earthen jar buried under the soil was still being used in the villages indicates that the construction of steam boxes could not yet be completed. Therefore, it was understood that the last chain of the disinfection mechanism of the project was deficient. It was emphasised in the report that it should be endeavoured to be completed. Also, in the report, it was stated that 841,820 persons had been vaccinated in the laboratory opened in Sivas in seven months and that eighty-seven persons had been treated at the rabies institution.[581]

As far as understood from these figures, the first step of an important project in the health had been taken under the conditions of the region. Nevertheless, there were some places where the project could not be applied at the desired level and where the application was interrupted a great deal. In a letter sent on November 7, 1917, it was indicated that refugees carrying typhus and *humma-yi racia* had been

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[580] Salim, p.101.

[581] *Osmanli Hilal-i Ahmer Mecmuasi (OHAM),* no.3, (13 Rebiülevvel 1340/ 15 Tesrinisani 1337 -1921); also Saglam, p.63.

settled in districts and villages outside of Harput, Elazig and Malatya; nevertheless, the concerned refugees entered into these cities and scattered everywhere due to winter, settled in the places they liked and therefore disseminated the diseases. Upon this letter, the sanitary inspectors responsible from this area were alarmed immediately and the physicians under their command took the necessary precautions in order to remove the condition, which was posing a threat to the health of the inhabitants of the region and of the refugees.[582]

The most successful results in the struggle against the epidemic diseases were obtained in 1918. With the precautions adopted under the project, typhus and humma-yi racia were eradicated in September. In the report prepared by the Ordu Sihhiye Riyaseti, it was indicated that 577 persons had contracted typhus in 1918 and eighty-two persons died because of it. *Humma-yi racia*, however, caused 1,095 persons to fall sick and fifty to die. There were no deaths due to these diseases in September. Nonetheless, units of the 3rd Army had started to advance from Erzincan to Kars in 1918 and since the war was taking place in winter, the medium was quite suitable for the epidemic diseases. Before the operation above, in January and February 1918, it was seen that the typhus cases increased when compared to the previous months. In a study conducted in January, it was acknowledged that the soldiers had contracted this disease in the transfer centre of Kayseri,[583] whereas in February the increase was found to be originating from the soldiers transferred from Istanbul.[584] Thereupon, the disinfection operations in Kayseri and among all military

[582] ATASE, Kls no. 2459, D no.269, F. (3-4).

[583] Saglam, p.224.

[584] ibid, p.229.

units were increased and further dissemination of the disease was therefore prevented.

Additionally, the *Sihhiye Riyaseti* moved the hospitals and health institutions along with the advancement of the army. The sanitary stations on the routes were rearranged and the number of mobile disinfection platoons was increased. Since the extermination of lice was made on every possible occasion, soldiers were prevented to get infested with lice during the operations and all such dangers behind the front were hindered. Therefore, all possible outbreaks were stopped.

The struggle continued at a rapid rate among not only the military units but also civilians. Especially the health problems that were encountered during the resettlement of some refugees who wished to go back to their hometowns after some military victories deemed this struggle highly important. The need for new refugee hospitals for the treatment of sick refugees was at the top of the list among the problems. Upon realising that many of the hospitals that had been planned to be built for the refugees could not be completed due to lack of available sources, the *Ordu Sihhiye Riyaseti* was reduced to great straits. In the meantime, the offer of the *Sihhiye Dairesi* to make the military hospitals which had an enormous sanitary organisation all around the region available to the refugees contributed greatly to the resolution of the problem. This offer, which was made on January 19, 1918 (19.1.1334) was accepted by the armed forces and as of this date, in case vacancies were available in the bed capacity of the military hospitals, the refugees were admitted into the military hospitals for treatment, provided that all of their costs would be covered by the civilian authorities.[585] This incident also suggests that the *Sihhiye Müdüriyet-i Umumiyesi*, which officially assigned its duty of struggling

[585] ATASE, Kls no. 2459, D no.269, F (3-1).

against the epidemic diseases to the *Ordu Sihhiye Riyaseti* of the 3rd Army, was not completely out of this business. As far as understood from the correspondences, the civilian authorities continued to work in cooperation with the military authorities by means of making proposals to the military authorities with regards to the conditions that the refugees were in and to their health problems or through using their feasibilities in order to support the project. As a result, in parallel with the efforts paid, it was seen in the statistics that as of April, typhus began to recede and this decrease continued gradually. It is evident that *humma-yi racia* was stopped in August and September, even though this disease was not stable. The recession of the epidemic diseases in a period when the army was advancing, contrary to what was expected, put forth the success of the struggle.

TABLE 6 EPIDEMIC DISEASES IN THE REGION OF THE 3RD ARMY IN 1915

MONTHS	TYPHUS		HUMMA-YI RACIA		TYPHOID FEVER		DYSENTERY	
	cases	deaths	Cases	deaths	cases	deaths	cases	deaths
MARCH	2,109	1,116	2,102	622			2,250	846
APRIL	1,223	551	1,571	460	378	375		
MAY	1,500	655	1,544	330	289	113	1,866	488
JUNE	1,127	464	1,333	363	114	67	153	9
JULY	646	289	1,206	330	110	38	305	16
AUGUST	528	199	1,116	383	97	78	524	256
SEPTEMBER	361	219	926	387	40	25	650	249
OCTOBER	572	257	1,127	569	76	41	974	607
NOVEMBER	804	337	1,461	626	165	81	903	583
DECEMBER	619	290	1,214	608	78	58	695	524
TOTAL	8,139	4,377	13,600	4,678	1347	876	8,320	3,578

TABLE 7 EPIDEMIC DISEASES IN THE REGION OF THE 3RD ARMY IN 1916

MONTHS	TYPHUS		HUMMA-YI RACIA		TYPHOID FEVER		DYSENTERY		CHOLERA	
	cases	Deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths
JANUARY	337	175	481	213	46	23	38	33		
FEBRUARY	184	134	156	69	8	6	97	56	189	121
MARCH	490	250	478	139	24	12	517	225	112	111
APRIL	893	327	1,023	309	15	15	480	244	28	22
MAY	521	149	533	134	4	4	142	97	70	36
JUNE	360	99	529	48	16	4	130	34	35	25
JULY	162	48	82	9	16	7	35	18	244	117
AUGUST	269	70	256	37	44	10	143	55	62	47
SEPTEMBER	346	113	437	77	35	18	443	178		
OCTOBER	573	124	1,317	112	19	13	276	157	21	17
NOVEMBER	1,180	214	1,547	186	28	6	388	282	11	4
DECEMBER	902	288	1,246	209	17	13	239	166	4	4
TOTAL	6,217	1,991	8,085	1,542	272	131	2,928	1,545	776	504

TABLE 8 EPIDEMIC DISEASES IN THE REGION OF THE 3RD ARMY IN 1917

MONTHS	TYPHUS		HUMMA-YI RACIA		TYPHOID FEVER		DYSENTERY		CHOLERA	
	cases	Deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths
JANUARY	902	288	1,246	209	17	13	239	166	4	4
FEBRUARY	416	99	461	96	2	2	125	101	1	1
MARCH	663	213	641	79	3	3	122	116	19	10
APRIL	417	95	381	29	4	1	141	61	25	20
MAY	153	38	167	12	4	1	43	56	20	18
JUNE	121	28	179	9			29	9	31	3
JULY	63	11	93	4	7	2	25	13	181	120
AUGUST	31	8	163	8	2	2	47	17	95	65
SEPTEMBER	14	3	73	3	8	2	72	22	22	14
OCTOBER	9	1	96	3	2	1	43	34		
NOVEMBER	21	3	57	1	5	0	51	23		
DECEMBER	33	5	84	2	5	1	63	31		
TOTAL	2,843	792	3,641	455	59	28	1,000	649	398	255

TABLE 9 EPIDEMIC DISEASES IN THE REGION OF THE 3RD ARMY IN 1918

MONTHS	TYPHUS		HUMMA-YI RACIA		DYSTENTERY		SYPHILIS		GONORRHOEA	
	cases	Deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths
JANUARY	85	15	197	3	77	23	128	1	81	0
FEBRUARY	101	12	133	9	47	14	114	0	89	0
MARCH	130	20	147	8	52	17	86	1	69	0
APRIL	64	15	166	10	21	15	82	0	77	0
MAY	46	9	125	4	14	6	68	0	72	0
JUNE	88	4	164	5	15	0	121	0	129	0
JULY	54	5	129	11	83	23	46	0	102	0
AUGUST	5	2	26	0	9	1	50	0	54	0
SEPTEMBER	8	0			12	2	34	0		
OCTOBER										
NOVEMBER										
DECEMBER										
TOTAL	581	82	1,087	50	330	101	729	2	673	0

The Çanakkale Front

The Çanakkale Front was opened at the Dardanelles on the Gallipoli peninsula by Britain and France in order to help their ally, Russia, and to leave the Sublime Porte out of the war on March 1915. The fighting on this front was conducted on sea and land and resulted in the defeat of the Entente States after eight months. The evaluations made after this war stipulated that Çanakkale Battles had caused enormous casualties on both sides. Even though different assertions are made on the exact number of casualties, in accordance with the reports of 1916, the loss of Ottoman Armies at Çanakkale due to those killed, heavily wounded, taken prisoner of war, and sick was 251,000 in total.[586] The total losses of British and their foreign dominions were reported between 198,340 and 215,000, whereas the casualties of the French were indicated as 265,000.[587]

Physical and geographical conditions also played important roles in this catastrophe besides the military forces of the parties. It is highly important that these conditions be known in order to evaluate Çanakkale Battles correctly. The Çanakkale Front took its name from the Çanakkale (Dardanelles) Straits. The Dardanelles covers an area of 63 km., starting from Çardak-Gallipoli and stretching to Kumkale,

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[586] As quoted by Sevket Süreyya Aydemir from a study made for the *Umumi Karargah Istihbarat Subesi* (Intelligence Office of General Headquarters) the number of deaths was 55,177, whereas number of wounded was 100.177, death by diseases 21,498 and those who were missing 10,067, therefore the total amount of casualties was 186,919, and when the sick who were transferred back and sent to different climates for medical reasons, 64,440, are added to this figure, the total amount is 251,359. Aydemir, p. 250. On the other hand, Liman von Sanders gave the number of casualties during Çanakkale Battles as 218,000, 66,000 of which were dead. Liman von Sanders, *Türkiye'de Bes Yil*, translated by Sevki Yazman, (Istanbul: Baha Matbaasi, 1968), p.130. Ismail Hami Danisment, however, alleged that the total amount of casualties during the First World War was 86,869. 55,127 of whom were killed, 100,177 were wounded, 10,067 missing and 21,493 died due to diseases. Ismail Hami Danisment, *Osmanli Tarihi Kronolojisi*, volume 4, p.430. Robert Rhodes James, by indicating that the Ottomans kept the records in a disorderly manner and therefore the official records were highly deficient, alleged that the real amount of losses almost reached 300,000. Robert Rhodes James, *Gallipoli* (London: Pimlico, 1999), p.348.

[587] James, p.348.

which is known as the Anatolian Side, in the Aegean Sea, and to Seddülbahir in Rumelia.[588] In the first half of the war (March 1915), naval ships of the Entente States tried to pass through the Dardanelles with a marine operation, but proved unsuccessful; they turned the direction of the operation to Gallipoli Peninsula and launched a land attack. When the type of the war changed, new war plans had to be made. These plans were entirely prepared based on the physical conditions of the region.

Gallipoli Peninsula is made up of slopes, deep straits and precipitous mountains divided by steep cliffs. This hilly land is from time to time cut by dry lakes stretching from north to south and to Aegean Sea, giving the peninsula an indented appearance. The land is usually barren; flora is made up of moors and small pine trees on the banks of the lakes that dry in summers. The peninsula, with these physical characteristics, was both advantageous and disadvantageous for defence. The main target of the Entente States was Kocaçemen Hill, which was situated in the middle of the peninsula and therefore could be used to control both the Aegean Sea and the Straits. In spite of the fact that the main operational area was that hill, landings on two different directions of the peninsula were made in order to distract the Ottoman and German forces.

Preparations for Mobilisation

The Çanakkale Front was not as well equipped as the other fronts during the preparations for mobilisation and at the beginning of the war. The Ottoman government focused on the Caucasian and the Channel Fronts which were distant

[588] Aydemir, p. 204.

from the centre and where violent attacks were estimated to take place and sent its biggest forces there. While these forces were destroyed fast in the Sarikamis Battle and Channel Campaign, no one ever thought that the enemy would attack from the Dardanelles. Nonetheless, ever since Russia had applied to Britain and had asked for help on November 1, 1914, the plan to conquer the Straits had been under discussion by the Entente States. The Russians were under pressure at the time on the Caucasian border and they wanted the Ottomans to be distracted, whereas the aim of Britain and France was to capture the Bosphorus and Dardanelles, from which all passages between the Black Sea and the Mediterranean could be controlled by them. It would be possible to capture Istanbul, the capital city of the Sublime Porte, and to help the Russians. Albeit, as of this line, it would be impossible for the Ottomans to continue their struggles in Anatolia after their communication with the Germans was cut and with the Russians coming down from the Black Sea, the Ottomans could be entirely left out of the war. Afterwards, with the British-French-Russian cooperation, the German and Austrian armies could be encircled and blocked. In short, this was the plan, which caused the opening of the Çanakkale Front.[589]

The architects of the plan were Lloyd George and Winston Churchill from the British Cabinet and Briand from the French Cabinet. The first attacks on the Çanakkale Front, the opening of which was decided after sharp discussions, were made from sea. On March 1, 1915, five British war ships entered the Dardanelles and started the war. But the biggest attack started on March 18 with sixteen large war ships. These ships that constituted the navy of the enemy were divided into three. The most modern ones were on line A (Erenköy Gulf and Kumkale), the French ships were on line B (Kilitbahir and Çanakkale) and the oldest ships of the British navy were on line C (in order to support line B). The bombardment started at 10:30

[589] ibid, pp.204-207.

in the morning and lasted the whole day. Despite all efforts, the Entente States were not as successful as they had hoped against the Ottoman units. The armoured war ships of *Bouvet, Irresistable* and *Ocean* were sunk while many others were damaged considerably.[590] Upon this defeat, the fleet of the enemy retreated and abandoned the idea of a marine operation. The Entente States, who realised that they could not achieve their ends by sea, initiated preparations for a big land operation. British General Ian Hemilton, who was appointed as the chief commander of the operation, ordered that initially units made up of 130,000 British and French soldiers should be landed onto Imroz and Limnos islands.[591] Therefore the preparations for the land operation were initiated.

Meanwhile, the Ottoman Army began intensive war preparations for the Çanakkale Front. The Minister of War, Enver Pasha, decided that the 5th Army should be established under the commandership of Liman von Sanders in Çanakkale on March 24. Von Sanders and the commission accompanying him, who left for Istanbul as soon as they received their new post, arrived at Gallipoli on March 26 and started the preparations for the war. Within four weeks, until the British attack began, forces of 84,000 troops were deployed on the Asian and European sides of the Gallipoli Peninsula.

In this period, arrangements on health were also started to be discussed together with the military preparations. For this purpose, Mustafa Talat (Özkan) Bey was appointed as *Ordu Sihhiye Reisi* to execute the health and veterinary services of the army. Dr. Mayer, who was the health consultant of the German reform

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[590] Field Marshal Lord Carver, *The Turkish Front 1914-1918, The Campaigns at Gallipoli, in Mesopotamia and in Palestine* (London: The National Army Museum Book, 2003), pp. 18-20.

[591] Sanders, pp. 74-75.

commission, was appointed as his deputy with the title of Deputy Director of the Sanitary Office (*Sahra Sihhiye Müfettis-i Umumisi Vekili*).[592] All efforts oriented to the health of the soldiers at the Çanakkale Front were executed under the surveillance and responsibility of this panel.

The transfer of the soldiers was among the main issues dealt with by *Ordu Sihhiye Riyaseti.* Military units were gathered from different parts of Anatolia as reinforcements to the 5th Army established at the Çanakkale Front. Since the transfer was decided to be made over the capital city, vessels and trains were continuously carrying soldiers to the city. It was decided that all soldiers who would depart form Istanbul in order to join the 5th Army should be disinfected at the Ayastefanos and Tuzla *Tahaffuzhaneleri* to avoid any contagious disease. This was a highly important and proper decision in the name of preserving the health of the army. Nevertheless, since in practice this order could not be observed properly, it is understood that some problems were encountered during the application. In a telegram dispatched by the physicians in chief of the 1st Army to General Directorate of the Sanitary Office, it was written that congestion had occurred in the quarantine unit of Tuzla since numerous soldiers had been simultaneously transferred there and that the disinfection procedure had been delayed. In the telegram, it was declared that if the disinfection was continued in this manner, the application would make Tuzla and the surrounding areas the centre of diseases and would ruin the soldiers.[593] In another telegram sent three days later (February 16, 1915/ February 3, 1330), it was indicated that Tuzla Hospital should be allocated to the units affiliated to the 1st Corps in Tuzla and that the units affiliated to the 2nd Army, which were planned to be transferred there,

[592] Özbay, p.230.

[593] ATASE, Kls no: 2416, D no: 11, F: (1-19).

should be directed elsewhere due to the crowding. The solution proposed in this manner was as follows:

For the units affiliated with the 2nd Army, quarters in tents should be erected opposite to the Faculty of Medicine in Haydarpasa; the soldiers who arrived at Haydarpasa should be transferred to the tents from the station and should be kept under cordon in order to prevent their contact with the public. The faculty could disinfect and provide the sanitation of one thousand soldiers each day. It would be suitable that army units that were planned to be transferred both to the quarantine unit of Tuzla and to the quarters in tents communicate with the sanitary panels there and determine the time period for the necessary arrangements.[594]

This proposal, presented by physician in chief of the 1st Army was accepted by the *Sahra Sihhiye Müfettis-i Umumiligi* as it was and the soldiers who came to Istanbul from that moment on were disinfected in accordance with this plan and sent to Çanakkale Front. Another point of focus of the *Ordu Sihhiye Riyaseti*, besides the transfer of the servicemen, was the hospitals. Hospitals at and behind the front were of importance for the treatment of soldiers at the battlefield. Before the war, infirmaries, the bed capacities of which varied from 25 to 100, were opened in Seddülbahir, Kumkale, Kilitbahir, Maydos, Bolayir, Çanakkale and Ecabat. There was a hospital of 250 beds in Çanakkale and a hospital of 200 beds in Gallipoli.[595] All of them were commissioned under the service of the army in accordance with the war plans. Furthermore, efforts were made to open new hospitals or to enlarge the capacities of the already established ones based on the needs. For this purpose, a

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[594] ATASE, Kls no: 2416, D no: 11, F: (1-9).

[595] *TSK, I nci Dünya Harbi'nde Türk Harbi, Çanakkale Harekati*, vol. 5, book 1, (Ankara: Genelkurmay Yayinlari, 1993), p.272.

branch of 200 beds was opened in Gallipoli French Hospital and the Gallipoli Hospital was enlarged and Bandirma Hospital was sent to Gallipoli with its all staff. A new hospital with 200 beds was opened in Bandirma with the help of the local population. The central hospital of the corps in Tekirdag was given under the service of the Head Office of the Armed Forces as a reserve hospital by decreasing its number of staff. Since it was planned that patients whose treatments would take a long time would be sent to this hospital, it was contemplated that vacant beds should be kept ready at all times in there. It was decided that heavily wounded soldiers should be sent to Istanbul, which was the centre of military health institutions. Other than Haydarpasa, Gümüssuyu, Maltepe, Yildiz and Gülhane hospitals, all domestic health institutions up to Tuzla, Hereke, Izmit, Eskisehir and Konya were attached the to Physician-in-Chief of the Commander of Istanbul at the beginning of the war.[596]

Upon the appearance of the British and French navies (the Allied Fleet) off the Dardanelles and their attempts to pass through the strait, some units were moved to the Çanakkale operations area speedily. In parallel with this movement, it was declared that new health institutions would be decided to be established in the region and on March 1915, Kale Central Hospital of 350 beds, Erenköy and Kilitbahir hospitals of 50 beds, Ezine, Ecebat and Umurbey hospitals of 200 beds and two logistic provisioning hospitals of 150 beds in Yalova were activated. Nevertheless, some of these hospitals had huge vacancies in their personnel such as physicians, dentists, pharmacists and chemists. Most of the battalions and regiments had the same problem.[597]

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[596] Özbay, p.230.

[597] TSK, pp.272-273.

Meanwhile, the *Ordu Sihhiye Reisligi* determined new health strategies for the war to be fought on the land. The most important point of focus was the transfer of the wounded and the sick to the hospitals. Since the importance of marine transportation and vessels in the transfer of the wounded and the sick was acknowledged during the war, it was decided that the transfer should be mainly made by sea. On the other hand, land transportation would also be used based on the needs and the obligations brought by the conditions of the war. Work was initiated based on this plan.

The Red Crescent Society gave the biggest support to the army with regards to the transfer of troops. At the beginning of the war, Marshal Sanders personally wrote a letter to the Red Crescent Society and asked for financial help. In the letter, it was indicated that the army was in need of many ambulances for the transfer of the sick and the wounded and that they needed 1,600 lira more in order to purchase these ambulances and therefore assistance was requested from the Society.[598] Upon this request, the Red Crescent Society acted immediately and the required donation and twenty-two ambulances purchased by the Headquarters of the Society from Istanbul were sent to Ankara for distribution. The fees of the spare parts and salaries of the drivers of these ambulances were also paid by the Society. These ambulances, left under the command of the sanitary department of the army until the end of the war, made great contributions to the transfer of the wounded during the period when the armed conflicts were severe. Furthermore, the Society, upon the demand of the army, manufactured six sick transfer vehicles, which were also known as "Bursa cars" and

[598] Akgün and Ulugtekin, p. 225.

donated the same to the army. The phrase of "Present from the Red Crescent Society" was written on these vehicles, which were manufactured for 1,000 liras.[599]

The Red Crescent Society also made great contributions in the arrangements made in for the transport of the sick and the wounded by sea. Taking into account that sea transportation was easier and faster to Çanakkale and Gallipoli, at the beginning of the mobilisation, the *Edremit* and *Gülnihal* vessels were hired and painted with the international colours and thus turned into hospital ships for carrying the wounded from the Black Sea to the Marmara Sea. The Society carried 10,000 war packages on July 24, 1915 and then 15,000 units of wound dressing materials to the zone of conflict with these vessels. The Edremit carried wounded soldiers during the war, but after it was badly damaged, the Ministry of the Navy, Chief Administration of Health (*Bahriye Nezareti Umur-i Sihhiye Idaresi*) ordered that her services be terminated, whereas the *Gülnihal*, which had a capacity of 700 persons, was also used for transportation of the commission to Trabzon, besides carrying the wounded.

Upon the increase in the number of the sick and the wounded in the later stages of the war, the vessels of the *Sirket-i Hayriyye* were also used. Vessels with number 60, 61, 63 and 70 of *Sirket-i Hayriyye* were used as sick transportation ships with capacities of 300 beds. The *Akdeniz* was also turned into a hospital ship and used in soldier and health equipment transfer. Furthermore, the *Resit Pasa* hired from the German Red Cross, carried the wounded to Istanbul throughout the war. Other than these, the British and French Red Crosses displayed an edifying attitude and neutrality that suited their founding purposes. 250 stretchers and materials in the

[599] ibid, p.230.

depot were carried by two British and one French mobile hospitals.[600]

Since land routes were also planned to be used, a main transportation line was drawn for the transfers to be made to the zone of conflict. The routes of these main lines were as follows: the Gallipoli-Kesan-Uzunköprü highway and the Bolayir-Alsamil-Sarköy and Kesan-Hayrabolu-Tekirdag roads. It was decided that this was the shortest and the most appropriate way on which the transportation cars could move easily. Nevertheless, the transfer of the sick and the wounded from the front to these lines was another problem. Dr. Mayer was underlying the fact that transportation by car from Lapseki and Çardak towns was not suitable. Furthermore, when the possibility that the enemy might enter the straits was taken into account, marine transportation could be impossible. Therefore, the transportation means called *kakuleli mekkari*[601] was decided to be used and camels and pack animals in sufficient number were asked from the General Directorate of the Sanitary Office.[602]

The War Period

After the completion of the necessary preparations for the land operation, the Entente States started to land their troops on the peninsula on April 25. In accordance with the attack plan, the main forces would be landed on the south cape (Seddülbahir region) of the peninsula; some of the units would advance to the direction of Kabatepe-Kocatepe in order to distract the Ottoman forces, whereas French troops

[600] ibid, pp.228-229.

[601] Kakule was firstly used by the French during the Crimean War in order to carry their wounded on mules back from the battlefield to the field hospitals. For detailed information, see Nuran Yildirim, "Osmanli Ordusunda Kakule Sihhiye Bölükleri," *5 nci Türk Tip Tarihi Kongresi Bildirileri*, eds; Esin Kahya, Sevgi Sar, Adnan Ataç, N. Yasemin Oguz and Berna Arda (Ankara: Ankara Üniversitesi Basimevi,1999), pp.163-181.

[602] Özbay, p.231.

would be landed temporarily on Kumkale beach. Since the number of British and French soldiers was not enough for such a broad operation, the British brought Australian and New Zealand troops, which were known as Anzacs (Australian and New Zealand Army Corps).

Entente States encountered with some problems during the Gallipoli operation. Since Britain and France did not have detailed maps of the region, they were unable to prepare proper operation plans. Besides, they did not have enough information on the Ottoman defence; neither were they experienced on landing from sea, which was called amphibic operation. Landing started later than the planned date, on June 25, 1915. Anzac units could not be very successful against the clever and resistant defence of Mustafa Kemal in Anafartalar. The struggle lasted for months with close barricade wars. The Allies started their second attack in August starting from Suvla Gulf. The Allies, who were unable to find what they were looking for, realising that Çanakkale could not be passed from land, either, retreated from Gallipoli at the end of 1915.

Health Services at the Çanakkale Front

Upon starting of the land battles on April 25, highly rigorous armed conflicts took place on the Gallipoli Peninsula. In battles that lasted for days and nights, both parties gave many casualties. It was reported that only during an attack made on May 191, 1915, which lasted for six and a half hours, thirty percent of the Ottoman forces were killed or wounded. The total number was more than ten thousand.[603] Such a high number of wounded quickly overwhelmed the transfer and the sanitary

[603] *TSK, I.Dünya Harbi'nde Türk Harbi Çanakkale Cephesi*, book 2, p.195.

companies. Sanitation platoons and those carrying the stretchers, marching after the attack units and advancing with them, carried the wounded under exploding bombs, in bomb splinters and dust and trying to transfer them to the locations where the wounds were dressed while passing through the valley ridges and slopes.

Physicians working at these locations were under worse conditions. They were trying to help the stream of soldiers laid down on the tables one after another without sleeping for days. Many passed out from improper sleep or food. Many wounded, realising the condition of the physicians, passed away while waiting their turn with patience, sometimes before seeing that it was their turn.

The locations where the wounds were dressed were first aid centres just behind the front established by the medical companies. Furthermore, sanitation stations of fifty beds were established 20 km. behind the front[604]. Soldiers carried to the locations where wounds were dressed were sent back to the front after they were attended to, whereas those who had been heavily wounded were transferred to sanitary stations from these locations. Since there were no proper transportation vehicles, the supply companies that carried foodstuffs and ammunition to the front also undertook to carry the heavily wounded. These divisions, who carried their loads to the front and turned back with empty cars, took the patients and transferred them to the hospitals at the evacuation centres at Akbas and Agadere ports. Some of the wounded were carried to the hospitals located in the surrounding areas overland, while others were distributed to the hospitals located inland via hospital ships hired from *Sirket-i Hayriyye* or vessels transporting ammunition or soldiers to the zones of conflict.

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[604] *TSK, I.Dünya Harbi'nde Türk Harbi, Çanakkale Cephesi Harekati***,** vol. 5, book 3, (Ankara: Genelkurmay Yayinlari, 1980), p.550.

Since the daily casualties due to war were very high, thousands of wounded soldiers were brought to the evacuation centres every day. When it is considered that 26,000 wounded were transferred back during the August 22-26 battles, a clear opinion can be held on the number of the wounded and on the heavy workload of the transfer being made.

The number of wounded, sick and those sent to different climates for medical reasons, transferred to other hospitals from April to November from Akbas and Agadere (distribution) hospitals, were as follows:[605]

Table 10:

Month	Number Of Wounded	Number of Sick	Sent to Different Climate due to Medical Reasons
April	25,065	207	-
May	16,298	1,192	-
June	15,031	959	-
July	17,721	2,954	145
August	12,742	10,747	2,449
September	5,162	7,738	2,457
October	3,315	5,973	7,224
November	3,939	4,024	5,524

On May 2, the enemy bombarded the town of Gallipoli by air balloon. Most of the houses, business places, private and official buildings were severely damaged. One of the places that was hit was Gallipoli Hospital. After the bombardment, the hospital was completely evacuated and the patients were transported to more secure

[605] Özbay, pp. 232, 235, 236.

places. The Red Crescent Society aid hospital, with a capacity of 300 beds in Gallipoli, was moved to first Sarköy and then to Tekirdag after the bombardment.[606] In the meantime, the Directorate of the Sanitary Office, with the concern that they would be damaged, requested the Red Crescent Society to transfer all of its health tools and equipment to Anatolia. Thereupon the Society immediately transferred all of its materials and equipment in Istanbul to the headquarters it established in Eskisehir.[607] The armed forces would try to cover the need for health materials from the logistic provisioning troop sanitary depot in Karabiga and Lapseki from that moment on.[608]

After the bombardment, since the civilians were in danger, most of the population of the town was transferred to Balikesir and settled in some mosques, *medreses* and some official buildings. When the battles intensified and the Entente States started to attack civilian residential areas, it was decided that other residential areas close to the battlefield should also be discharged, as in Gallipoli, for the purpose of security. The places to which the civilians would be sent were settlement centres like Balikesir, Bandirma, Erdek and Edremit which were distant from the zone of conflict. Since wounded and sick soldiers were being transferred continuously to these places, all official and private buildings, public places and hospitals of these towns were swarming with thousands of wounded and sick soldiers and refugees. These people, who left their homes in panic, encountered accommodation, nutrition and health problems in places to which they migrated. Congestion and misery were everywhere. Since the government and the army that

[606] ibid, p.232.

[607] Akgün and Ulugtekin, p. 226.

[608] *TSK*, vol. 5, book 3, p. 547.

had to be concerned with the condition of the soldiers at the front during the ceaseless attacks were unable to help these people behind the front, semi-official aid organizations like the Red Crescent Society, the Society for the Defence of the Nation (*Müdafa-i Milliye Cemiyeti*), the Navy League (*Donanma Cemiyeti*) and the National Society of Women (*Istihlak-i Milli Kadinlar Cemiyeti*) became involved with the matter. These institutions, with the aid organizations and propaganda they spread throughout the country, ensured the establishment of a national awareness on the matter and contribution of the public in a broad manner for all kinds of aid activities. On one side new hospitals were established for wounded and sick soldiers and on the other, the fundamental needs of the refugees were tried to be covered with the donations collected. For instance, a hospital of 200 beds and the surrounding tents erected in Bandirma did not suffice for the wounded soldiers; thereupon the inhabitants of Bandirma prepared a new hospital with 200 beds and put the same into practice. Similarly, when the master of a vessel that was carrying sick soldiers to the hospital of 200 beds established in Adapazari by the Red Crescent Society misunderstood the order and disembarked 400 wounded in Erdek, a hospital was established with the support of the local government and of the inhabitants in the Greek Girls High School. Nevertheless, since the number of wounded soldiers who arrived at the hospital was well above the capacity of the hospital, some big houses in the city were also used as hospitals in the treatment of the patients. It was possible to see many similar examples in other cities or districts like Edremit, Susurluk, Gönen, Ayvalik or Burhaniye.[609] Nevertheless, aside from the hospitals, health staff was also needed severely. Most of the wounded or sick in the hospitals died from negligence or lack of treatment. In order to fill this vacancy, students of the School of

[609] Aydin Ayhan, "Çanakkale Savaslari Sirasinda Harp hastaneleri ve Balikesir ile Kazalarinda Harp Hastaneleri", *Tip Tarihi Arastirmalari* 10 (Istanbul 2001), pp. 164-170.

Medicine, who had been employed in Istanbul, were first sent to Çanakkale via the *Resit Pasa* and then to Gallipoli under the protection of *Gayret-i Vataniyye* destroyer and distributed among the surrounding hospitals.[610] Furthermore, health staff of the Red Crescent Society, with the participation of members of the *Istihlak-i Milli Kadinlar Cemiyeti* and civilian women who volunteered as nurses, worked as nurse attendants in these hospitals.

Other than the hospital activities, with the campaigns started by these societies, money, clothes, beds, quilts and foodstuff were gathered from the civilians and given to those who were in need. Apart from this, health equipment and medicine were purchased with the donations of civilians and efforts made to meet the needs in this regard. For example, all of the needs of the hospitals in Balikesir were covered in this manner. The aid was being made not only in the city but also in all districts and villages. Furthermore, the women who volunteered to work in these hospitals supplied clothes, cigarettes and food to the wounded with the aid campaigns they initiated. In sewing workshops opened by the Red Crescent Society, clothes were sewn for many wounded.[611] The schools and their students also contributed to these campaigns by donating money and materials. The German, American, Italian and Austrian Red Cross Societies provided health support to the region for the wounded and the sick. The Germans opened the Tekfurdagi Red Cross Hospital and Gallipoli Red Cross Hospital for service. The Americans put the Gallipoli American Red Cross Hospital into service, whereas the Austrian and Italian

[610] Özbay, p.232.

[611] *Osmanli Hilal-i Ahmer Cemiyeti Hanimlar Heyeti Merkeziyesi* (Istanbul: Ahmet Ihsan ve Sürekasi Matbaasi, 1330), p. 87.

Red Cross also opened their own hospitals and gave them under the command of the Ottoman army.[612]

After the land wars started, since the wounded and the sick were being continuously transferred to Istanbul, all of the hospitals in Istanbul were full. It was as if the same terrible scenes of the Balkan Wars were repeating. Every day thousands of sick and wounded arrived in the city via ships or train to Sirkeci and Haydarpasa Ports. Some died during the transport. The sick and the wounded who landed at the ports were distributed among the military hospitals in Istanbul by the Commission for the Commander of the Transfer of the Wounded of Sirkeci (*Sirkeci Sevk-i Mecruhin Kumandanligi Komisyonu*).[613] After the war started, the hospitals had to admit patients in numbers well above their capacities and therefore gardens, corridors, saloons, in short, all places available, were crowded with patients to be treated. Çanakkale turned into a death meal. The soldiers at the front fell out of the war due to death, wounding or diseases in a short time and new forces were continuously needed. Since the war was also continuing on the other fronts, there was no possibility of reinforcements from Anatolia. Therefore boys with the ability to use a weapon under the age of eighteen were sent to Çanakkale starting from the regions closest to the battlefield. Most of these were still children. While the ships and trains carried the young people to the front, they were carrying most of them back as wounded and sick. On the other hand, thousands more, exact number of which will never be known, died on the battlefields.

When the hospitals in Istanbul became unable to cover the needs of the arriving sick and wounded, with the support of the army and the Red Crescent

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[612] ibid, p. 235.

[613] Ayhan, p.158.

Society public and private schools, barracks, various institutions and buildings were turned into hospitals as in the Balkan Wars.[614] The School of Medicine and Gülhane, students of which had been drafted with the mobilization, started to serve as auxiliary war hospitals. It was decided that the heavily wounded should be treated in these hospitals. Gülhane was under the management of Dr. Zelling, whereas the School of Medicine was under the management of Dr. Ziya Nuri Pasha and his assistant, Ali Haydar Bey.[615] The capacity of the hospital of the School of Medicine, which was initially established as 750 beds, was increased to 1,500. All wards, laboratories, even all corridors, became dormitories. This hospital was administered by the army for a while and then assigned to the Red Crescent Society.[616]

The efforts of the Red Crescent Society were remarkable in the hospital activities executed in Istanbul. Since the front where the battles were fought in Çanakkale was very narrow, the Society could only establish a field hospital and a couple of logistic provisioning troop tea houses that would be needed during the transfer of the wounded. Therefore it strengthened its main organization in Istanbul, establishing eight stations, hospitals, convalescence units and some other health institutions for the wounded coming to different parts of the city.[617] The hospitals opened by the Society in Istanbul were as follows:

Cagaloglu Red Crescent Society Hospital, Nisantasi Red Crescent Society Hospital, Hasköy Nisa Red Crescent Society Hospital, Karaköy Red Crescent Society Hospital for the Wounded, Kadiköy Red Crescent Society Hospital, Galata

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[614] ibid. , p. 160.

[615] Özbay, pp.233-234.

[616] Süheyl Ünver, "Birinci Cihan Harbinde Tip Fakültesi," *Modern Tedavi Mecmuasi*, no. 3 (separate issue) (Istanbul 1952), p.3.

[617] Akgün and Ulugtekin, p.225.

Red Crescent Society Hospital, Iplikhane Red Crescent Society Hospital, Rami Red Crescent Society Hospital for the Wounded, Darüssafaka Red Crescent Society Hospital, Kadirga Red Crescent Society Hospital, Red Crescent Society Hospital of the Faculty of the Medicine, Red Crescent Society Hospital, Taksim Red Crescent Society Hospital, Beyoglu Red Crescent Society Hospital, Beyoglu Mekteb-i Sultani Red Crescent Society Hospital (Galatasaray War Hospital).[618]

In addition to the Red Crescent Society, some foreign Red Cross Societies provided significant health aid in areas close to the battlefield as well as in Istanbul. The Austrian, German, Italian and American Red Cross Societies were on top of the list. Members of the German Red Cross Society sent nurses to Istanbul even in 1914. They were under the command of the highest rank sanitary officer of the German military panel. Due to the Çanakkale battles, on May 1915, a second commission of five physicians, ten nurses and ten nurse attendants was sent to the capital city. This group was followed by many others.[619] On the other hand the German and Italian Red Cross Societies gave the German and Italian hospitals in Istanbul under the command of the army. The American Red Cross Society put the English hospital and the French hospital in Taksim into service under the name of the American Red Cross French Hospital for the lightly wounded (*Hafif Mecruhin American Salib-i Ahmer Fransiz Hastanesi*). Furthermore throughout the war foreign nuns worked in Pangalti, Feriköy, Maltepe, Gümüssuyu, Haydarpasa, Çapa, Defterdar, Ayastefanos, Agahamami and Tekirdag Hospitals and in the *Milli Kadinlar Cemiyeti.* Nevertheless these aids were not sufficient for the never ending transfer of soldiers from the front, either. Since all of the hospitals and health institutions in Istanbul were full, the

[618] Ayhan, p. 160.

[619] Becker, p. 21.

Sahra Sihhiyye Müfettis-i Umumiligi ordered that no more patients be sent to Istanbul and initiated transfers to logistic provisioning hospitals.

Besides the health services provided to the Ottoman army, the health services and health staff of the Entente States, when compared to their military organization, were under terrible conditions.[620] The medical preparations necessary for the war were made at a late date, April 18. The Central Headquarters were held liable from this delay due to the reason that it had failed to inform the Sanitary and Supply Directorates. After learning the aim and targets of the war, General Birrel, the Director of Sanitary Services quickly prepared a war health plan on April 18. Nevertheless equipment of the hospital ships, evacuation and treatment of the wounded, precautions to be taken against the epidemic diseases etc. in short all preparations were totally deficient in this plan. In the plan, four hospitals of 4,500 beds were prepared in Cairo and Alexandria and a hospital with a capacity of more than 3,000 patients in Malta was opened. But these hospitals were far from the battlefield of the Gallipoli Peninsula. The transfer of patients to Egypt would take two to there days and to Malta after a journey of four to five days.[621] Therefore at the beginning of the war, plans were made to establish base hospitals on the peninsula for the heavily wounded. Besides, three hospital ships named the *Alabunia, Gascon* and *Sicilia* of which total bed capacity was 2,000 for the transfer and treatment of the patients and seven transport ships including the *Caledonia, Aragon* and *Dongola* were rearranged in order to accommodate 7,300 persons.[622] There were two well-equipped hospitals available. One of which was a hospital ship named *Himdoo* and

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[620] C.F. Aspinall-Oglander, *Military Operations Gallipoli*, vol. I (London: The Battery Press, 1992), p. 146.

[621] ibid, p.144.

[622] Michael Hickey, *Gallipoli* (London: John Murray Publisher, 1995), p. 107.

the other was an Australian vessel which could accommodate 400 heavily wounded with its surgeons, sanitation staff, and nurse attendant, operation room and an x-ray device.[623] Additionally some hospital ships arrived at the zone of conflict under the command of the Red Cross Society. Since the war health plan was prepared according to the base hospitals planned to be established in the peninsula, the transfer ships were only equipped in a way that would enable the treatment of the lightly wounded. It was planned that treatment of the heavily wounded would be made in the base hospitals. This never happened; only a hospital in tents could be erected in Limney Island quickly whereas the heavily wounded were sent to Egypt, Malta and even Britain.[624] Therefore the burden of health services was borne by the hospital ships that transported the patients throughout the war.

The inefficiency of the plan prepared was revealed with the collapse of the precautions taken for the discharge of the wounded within a short time after the war started. Lawrence Wedderburn, sanitary officer of the transport ship, *Caledonia*, which was serving as an ambulance ship during the war, alleged that the number of wounded on the part of the Entente States sometimes reached to 250 in a single attack. The wounded were conveyed down the broken roads to the port in horse-drawn ambulances and carried from one vehicle to another in enormous pain, waiting for a ship to transfer them to the hospital. Furthermore, since few of these vessels had the necessary equipment, getting the wounded onto the ships was also difficult and dangerous.[625] Since the sanitation recruits did not raise the heavily wounded from the stretchers, there was a serious absence of stretchers on the beach. Patients waiting

[623] James, p. 137.

[624] Alan Moorehead, *Gallipoli* (Ware: Wordsworth Editions, 1997), p. 189.

[625] Carver, pp. 38,39.

under the sun were in pitiable conditions. For the soldiers, who managed to board the ships as a result of the clumsily made transfer operation, the struggle was not yet over. The conditions that the patients encountered in the ship were terrible. During the health arrangements, only health personnel had been sent with the transfer ships and no preparations had been made in the parts reserved as hospital. Other parts of the ships were not hygienic. The toilets were clogged, dirty and their ventilation was not proper, therefore not in compliance with the health conditions. Nevertheless, under the heavy bombardment, it was important for these ships to come ashore and to take the wounded and the sick as soon as possible, for most of these ships departed for Egypt before filling their capacity due to lack of coordination, forcing thousands of heavily wounded to wait under the sun for treatment for days.[626]

The enormous increase in the number of the sick and the wounded drove the health services into a big impasse. Upon the worsening of the situation, surgeon Admiral Sir James Porter was commissioned as the Principal Hospital Transport Officer on July 28 in order to regulate the transfer of the patients. Porter was to control and to manage the movements of all hospital and transfer ships of the Entente States in Mediterranean. Since these vessels did not carry the flag of the Red Cross, they were known as "black ships" and were therefore differentiated from those of the white-painted Red Cross hospital ships. This new appointment annoyed General Birrel, Director of Sanitary Services, and caused him to assume a negative attitude towards Porter.[627] Since this increased the already existent lack of communication in the health services, and did not improve the conditions, but worsened them and the

[626] James, pp.136-137.

[627] Hickey, p.247.

health services of the Entente States could never reach the desired level during the war.

Conditions as a Basis to the Epidemic Diseases in Çanakkale Front

Starvation

Starvation was one of the main reasons for the high rates of disease. The Ottoman armies had to replenish the units via either sea lane or land route. The Marmara Sea was the main transfer route. The transfer from Istanbul to Gallipoli Peninsula took almost twelve hours, whereas carrying the foodstuff stocks from the zone of conflict to the front was another problem. The supply companies had to work with light vehicles and camel columns since there was no truck in that period, which caused a low performance, and even the consumption of the load being carried by the supply columns. Furthermore, transferring the replenishment to the front on such a limited land and under bombardment necessitated running the risk of serious dangers. Therefore, the soldiers at the front had to economise on food. Most of the time, the quantity of stores had to be decreased in order to prevent the food from being exhausted. Starvation was a problem which grew daily for the soldiers.

The food was cooked under primitive and difficult conditions. There was no field kitchen. Since the British vessels were volley bombing every time smoke was detected in the air, kitchens had to be built far from the front. Since the food cooked was brought from a distance, it was cold, frozen or even spoiled when distributed among the soldiers. Sometimes, the food distribution columns came under the fire of the enemy, under these conditions; it was not possible to distribute food. Then, the

soldiers had to sop the cereals they had brought with them with water and eat them. The food was always the same. Most of the time, poultry, and rice cooked with lamb, vegetables or a couple of meat joints. [628]

The situation grew worse in May. British submarines posed a great threat to the Ottoman vessels. British and French submarines entered the Marmara Sea at the end of April and ransacked the transport and replenishment vessels sailing to Gallipoli. A submarine called *E 11* moved on Istanbul, came near to an ammunition store and sank a freighter on May 18. Thereafter, it patrolled all of the sea lanes coming to Istanbul and paralysed the sea transportation.[629] In the middle of May, the Ottomans almost quit sending soldiers and replenishment to the Gallipoli Peninsula by sea. The marine voyages were made on a limited and controlled manner. Therefore, it was obligatory to make the replenishment via trains or on foot after a journey of weeks, which seriously delayed the delivery of replenishments and other materials.[630] Meanwhile, the effects of the war hit Istanbul, too; the prices of food increased incredibly and fuel could not be found anywhere in the market.

In a couple of months, the units at the front were unrecognisable due to malnutrition and ill barricade conditions. Due to the deficiencies, even the smallest wounds could lead to death and the risk of catching a disease increased daily. Soldiers, who were unwell in this way, were sent home for medical reasons. Due to the deficiency disease, thousands of privates had to be sent to the hospitals and number of those who died because of weakness and lack of care was thousands.

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[628] Carl Mühlman, *Çanakkale Savasi, Bir Alman Subayinin Notlari* (Istanbul: Timas Yayinlari, 1998), p.112.

[629] Aspinall-Oglander, pp.308-309.

[630] James, p.203.

Starvation and malnutrition were not the problems of merely the Ottoman Army. The soldiers of the Allies were also suffering from the same. Despite all care paid to the military planning, the Allies were accused of negligence in health and supply services and especially the British General Headquarters encountered with serious charges in this regard. In accordance with the allegations, sanitary and supply directors had not even been informed of the aims and targets of the campaign until it was too late. Despite having enough food, big difficulties were come up against during their transfer and distribution among the soldiers throughout the war.[631] The physical conditions of Gallipoli Peninsula played a big role in this regard, besides the lack of planning and communication. The units had to settle in a highly sloppy, mountainous and narrow terrain. Furthermore, the peninsula was far from Alexandria, which was the main supply base. Also, only Kephalos Bay and Moudhros Bay could be used for embarking- disembarking between the supply base and the peninsula. Nevertheless, neither of these bays had any berth, water break, port or depot before the Gallipoli War, therefore everything that the army needed had to be carried to the coast via small fishing boats. The boats brought the replenishments they received to jerry-built ports at the beaches of the peninsula. The foodstuff was taken to the supply depots of the division. The main issue was to take them to the front. Since the land was very steep and rocky, this could only be made on mule. Nevertheless, since the supply groups had to advance under bombardment, this caused considerable danger, therefore the supply transfers were made at night as far as possible. After a hard journey, the supply groups were delivering their cargo to the supply departments of the regiments and these materials were distributed among

[631] ibid, p. 87.

the soldiers thereafter.[632]

The foodstuff usually included marmalade, bully beef and ship's biscuit. Sometimes ham, tea and sugar were also brought. Despite all difficulties, food was plenty but not healthy because it was not suitable to the weather conditions. Fatty canned meat, which grew hot under the sun of June, July and August melted as soon as it was opened. Fresh meat was scarce and once it was brought, was left under the sun without any cover, attracting flies and causing danger. Eggs, milk, fresh vegetables and fruit could not be seen at all. Apricot, apple and plum marmalade was as sickening as canned meat. The foodstuff that was eaten the most was ship's biscuit, which was hard enough to break one's teeth. Albeit, the French could eat freshly baked bread since the beginning of the war, but the British and its foreign dominions did not have this chance until a couple of mobile bakeries were erected at the front.[633]

The Allies also had difficulties in replenishments when the German submarines attacked in the early days of the war. The soldiers began to find it unceasingly difficult to eat these foods. Since the limited stocks had to be economised, the soldiers received less food, hence, malnutrition and starvation in the long run were also the fate of the soldiers of the Allies.

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[632] Steel-Hart, *Defeat at Gallipoli* (London: Papermac, 1995), pp.301-303.

[633] James, p. 223.

Conditions of Sanitation

One of the basic reasons for the diseases was the lack of hygiene at the front. The soldiers had to live with ten thousands of dead soldiers who passed away due to attacks in the barricades and on the battlefields. During the combat that continued without any intervals, soldiers could not even leave the barricades. Therefore, burying the dead was a serious problem. The carcasses of horses and human bodies rotted quickly in the weather and it was difficult to breathe because of the smell in the air. Since the war was fought on sloppy terrain during the advancement of the soldiers or just because of hot wind, corpses were being dragged down to the sea or barricades of the enemy. The soldiers of the Allies had to live side by side with their own corpses on a land entirely covered with dead Ottoman soldiers. The Naval ships of the Allies tried to pull the corpses at sea to the open sea and to cut them into pieces by bayonets or knives tied to broomsticks. If they were unable to succeed in this, the dead bodies would be broken into pieces by the propellers of the ships. Some dead bodies washed up onto the shores with the tides.[634] Due to endless artillery shot, the battlefield was entirely covered with dead bodies. Within a short time, the smell of the dead bodies, contamination and flies started to be intolerable. Thereupon, the parties negotiated this issue on May 22 and decided that the dead bodies should be buried and an agreement of nine hours was made on May 24. This task was appointed to Aubrey Herbert and his panel on behalf of the Allies and to a health panel under the presidency of Colonel Izzet Bey and Ahmet Pasazade Arif on behalf of the Ottoman side. The Ottoman commission that came to the battlefield on May 24, started the burial process based on the agreement. There were almost 4,000

[634] ibid, p.221.

dead Ottoman soldiers on the battlefield and they had died in a single attack. The Ottoman health panel continuously gave away antiseptic cotton to those present in order to avoid the sharp smell of rot. Since the soil was dry and hard, little earth could be thrown on the soldiers being buried. At last, all of the dead bodies were buried and the commission members shook hands and returned to their barricades, waiting for a new attack.[635] But, this was a process which was applied only to a limited area. There were still many dead bodies on the shores and in the surrounding areas. It was evident that their number would increase as long as the attacks continued. The rotten corpses, besides the stink they gave off, posed a health threat, for flies on the bodies of the dead conveyed the microbes of many diseases everywhere. All of the barricades were covered with millions of flies like big black blankets. But, corpses were not the only food sources of the flies. They also chose the toilets as their hunting areas.

The toilets were prepared in a very primitive manner at the front, made up of a stick buried to the earth in cling on to and a hole, under the name of field toilets. There were no disinfectants. The limited water sources necessitated the economisation of the same. The soldiers had to cover these holes as soon as they were finished in order to decrease the flies and to prevent the diseases. Nevertheless, this was not a rule that was obeyed every time. Larva and the flies on the uncovered faeces flew onto the food of the soldiers. Every time a can of food was opened or someone tried to eat marmalade or any other foodstuff, they were covered entirely with flies.[636] Since the mosquito net was not known in these days, the best protection method of the soldiers against the flies was a kind of veil made up of zephyr cotton.

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[635] ibid, p.186.

[636] Michael Tyquin, *Gallipoli The Medical War* (Australia: New South Wales University Press, 1993), p. 114.

The soldiers had to eat and sleep with these veils.[637] Those who did not have one, either ate infected food or quit the food that they had obtained with many difficulties.

Due to extremely hot weather of June and July, the flies increased greatly and invaded everything. Corpses, garbage, and undressed wounds facilitated their increase. Under these circumstances, many epidemic diseases like dysentery, typhoid fever and jaundice started to be seen widely.[638] While strict sanitary precautions were being taken in the Ottoman units, the Allies also published some circulars entitled "Prevention of Flies in the Quarters and Accommodation Places" and "Prevention of Typhoid Fever". Nevertheless, these letters never gave the desired results.[639]

The soldiers were mostly in need of water for cleaning. Extremely hot weather caused dehydration; therefore, water could only be used for drinking. Since there was no sufficient water spring for both of the parties on the battlefield, the units had to cover their water needs behind the front or with water supplies brought from other places. When some water springs on the lines captured were invaded by the Entente States, the Ottoman units tried to bring water from the inland areas. Nevertheless, the mountainous terrain made the water supply considerably difficult. It was risky to use the springs available, for most of the time sewage was mixed with the wells or sometimes waters could be contaminated due to uncovered corpses around, which caused many microbial diseases. The usage of the seized water springs was not easy for the soldiers of the enemy, either. For similar reasons, or due to the fear that the Ottomans might poison the waters, forced them not to drink the waters of these spring before chlorination. British, French and Anzac units were

[637] Moorehead, p.188.

[638] Tyquin, pp. 111-112.

[639] James, pp. 221-222.

supported by the water supplies from Egypt, apart from the local resources.[640] Yet, just as in the food supplies, the transfer of the water coming to the shore to the soldiers was a major problem. Water brought via boats from the Nile was pumped to the shore and then carried to the front on mule back. The soldiers had a ration of one cup of water per day. Since they were even unable to receive this ration, they had to drink the infected water or condense and distill the sea water and drink it.[641] This fact had a major role in dissemination of the diseases.

The scarcity of water was also an obstacle to the sanitation of the soldiers. Soldiers who were living side by side with rotting corpses in dust and hot weather were under indescribable conditions. Their feet and bodies were covered with running sores and aching and feverish boils and various other skin diseases. When they took off their combat boots, which stayed on their feet for weeks, the skin of their feet peeled off, the peeled areas were inflamed or if left uncovered, invaded by the flies and became highly infected. It was reported that more than half of the British and French soldiers who had come to the peninsula suffered from septic boils.[642] The Anzac soldiers, since they were also unable to find water for cleaning, found the solution of swimming and therefore became clean twice a day. However, this was also banned after a while since it caused dysentery and other intestinal diseases.[643]

Lice were another problem for both sides. Based on the previous experience, serious precautions that would prevent the soldiers from being infested with lice were taken in the Ottoman quarters. Disinfection of the quarters received

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[640] Aspinall-Oglander, vol. 1, pp. 121-122.

[641] Moorehead, p. 188.

[642] James, p. 252.

[643] Tyquin, p. 114.

extraordinary importance and shower cabins that would enable each and every soldier to take a bath once a week were built. Furthermore, lice controls and extermination were conducted with the utmost diligence.[644]

Lice constituted a bigger problem for the Allied soldiers. It was impossible for them to take baths or to get clean since water was scarce. Therefore, all of the units were given lice powder of Keating made or little camphor bags with strings to tie on their necks. The soldiers wrote to their families and asked for medication that would prevent lice more than they asked for food or cigarettes. In spite of the fact that various household medications and lice medicines were sent via packages, these could not prevent the lice, but increased them even more.[645]

The allied soldiers developed their own ways of getting rid of lice. These were similar to the methods developed by the Ottoman soldiers in the Caucasian Front. They turned their clothes inside out and passed burning cigarettes near the stitches, killing the lice.[646] Despite the fact that this damaged the clothes, it was successful and therefore frequently applied by the soldiers. Another method was to benefit from the ants. The soldiers, realising that lice ran away from ants, left their clothes on top of ant holes and waited for the lice to run away. But careful control was needed before wearing them again since the lice remaining on the uniform could increase easily.[647]

The most vehement danger that the lice could pose was typhus. Although typhus was seen as an epidemic in many areas around the Çanakkale region, it was

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[644] Özbay, p. 237.

[645] Steel - Hart, pp.310-311.

[646] James, pp. 223-224.

[647] Steel-Hart, pp.310-311.

not seen as a serious epidemic among the Ottoman soldiers during the war.[648] The reason for that can be explained with the severe precautions taken and summer.

Climatic Conditions

The climatic conditions of the Gallipoli Peninsula bore characteristics that directly affected the fighting soldiers. The soldiers had to deal with extremely hot weather during the summer and with freezing cold during the winter. The natural flora was scrubs and other bushes, instead of forests or broad green areas, which caused the weather conditions to be directly felt. Since the war took place in summer, especially the burning temperatures of June, July and August ruined both parties. The artillery shots set the dry grass and bushes on fire and, soldiers died in fires. Serious sun burns were seen on hands and faces of soldiers who were waiting in the barricades all day. It was reported that more than half of the soldiers of the Entente States suffered cardiac failure due to the high temperatures.[649] The German soldiers were also negatively affected by the high temperatures and conditions of the environment. The number of soldiers in the German fortification company, which was originally made up of 200 soldiers, transferred to the area in June, decreased to forty in a short time due to the hot weather and the heavy conditions of the fronts. No other German unit was sent to Çanakkale.[650]

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[648] Aydin Ayhan, "Çanakkale Savaslari'nda Yaralanmalar ve Hastaliklar," *Tip Tarihi Arastirmalari* 11 (Istanbul 2003), p. 104.

[649] James, p. 252.

[650] Sanders, p. 100.

The troubles caused by the hot summer weather were doubled with the incoming dust storms. Harsh and hot wind covered everything with dust. Dust was entering into the clothes of the soldiers, and burning their eyes, noses and throats. Dust stuck on to the bodies of soldiers, who were sweating due to the heat, turned into mud, which was impossible to clean. It was certain that dust played a major role in the dissemination of microbes.[651] It was reported that the Entente States had to send 1,400 soldiers who were left out of the war due to hot weather and dust behind the front each week in July. Seventy-five percent of these were due to the epidemic diseases.[652]

When the hot weather started to leave the region as of September, the soldiers at the front started to encounter different problems. Heavy rain fell with the coming of autumn. Soldiers were in deep shelters in Anzak and Ilyasburnu. With the heavy rain falls these shelters became filled with water and caused the soldiers to be stuck in water and mud to their waists. The condition of the soldiers in Anafartalar was worse. Since the land there was highly rocky, the soldiers had to build barricades by erecting stone walls on the soil. These walls were destroyed with the first heavy rains and the flood coming from the hills drove the dead bodies of the drowned Ottoman soldiers into Tuzla Lake. The water level in the lake exceeded a meter with in a short time and both parties forgot the war. Ottoman and British soldiers climbed the hills remaining from the stone barricades to survive the flood.

The frost that came at night made the struggle for survival even more difficult.[653] For these soldiers who were shivering in cold weather without the

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[651] Steel-Hart, p. 312.

[652] C.F. Aspinal-Oglander, *Military Operations Gallipoli*, vol. 2 (London: London Heinemann ltd., 1932), pp. 117-118.

[653] Moorehead, pp. 272-273.

simplest protection war was no longer a mere struggle made with artillery or rifles. The soldiers had neither proper clothes nor food to eat. Mühlman described how Ottoman soldiers were under more pitiable conditions than the soldiers of the Entente States and therefore with the incoming winter many deaths by exposure were seen among them.[654] On the other hand despite the fact that soldiers of the Entente States were under better conditions with regards to supplies and equipment, they were affected more by the climatic factors due to the problems encountered during the distribution of the supplies and equipment and to narrow land. Since they had to live in damp and cold barricades, thoroughly soaked, the health of most of them was ruined speedily.

The snow that came with winter meant total destruction for both sides. Most of the Anzacs and Indians had never seen snow in their lives and therefore were completely defenceless against cold weather. Hands and feet froze and their bodies became numb with cold and they could neither talk nor understand what was said. The blankets given away for heating became rigid with the cold and thus provided no protection at all. Since no vessel came along the shore for three days due to freezing weather, the conditions that the soldiers of the Entente States were under became worse than those of the Ottomans. Three vessels were sunk in order to make a water break but the tides of Gökçeada Port passed over the wrecks of the ships and razed the small boats used for supplies into the ground. When the strong wind ceased on November 30, count was made and it was understood that one tenth of the forces of the Entente States had been lost. 200 soldiers were drowned; the body parts of 500 were frozen, whereas 500 were injured.[655] In accordance with the sources of the

[654] Becker, p.11.

[655] Moorehead, p. 293.

Entente States, at the end of the war more than 12,000 deaths by exposure and diseases caused by cold weather were experienced in Suvla, whereas this number was 3,000 among the Anzac and 1,000 in the Hellas (Seddülbahir) troops. 280 soldiers died directly from the storm and blizzard.[656]

Epidemic Diseases Seen at the Çanakkale Front

Dysentery

The incredibly high number of casualties at Çanakkale was from war wounds. Many lost their lives due to disease. As indicated above, all prerequisites for the soldiers of both parties to contract the diseases were present at Gallipoli. Millions of flies fed from the corpses and open toilets, garbage, lice, dried or contaminated water springs dragged the soldiers, who were exhausted due to endless warfare, and who could not sleep or eat properly, to the epidemic diseases. Rhodes states that the role of these miserable conditions in the peninsula should not be disregarded in making the lists of diseases which were considerably longer than the lists of casualties.

Bacillary dysentery was the disease seen most during the Çanakkale battles. Flies and contaminated water played major roles in the appearance of the disease. Bacillary dysentery first started in Ottoman armies in spring and continued its effect until the end of October. Diarrhoea cases as dysentery were started to be seen in units affiliated to the 1st Corps for the first time in May 1915. In the bacteriologic analyses made by hygiene consultant Abdülkadir Noyan, it was confirmed that the disease was bacillary dysentery and that these kinds of cases were also seen in other units. In a letter sent to the General Directorate of the Sanitary Office by the *Ordu Sihhiye*

[656] James, pp. 335-336.

Reisi of the 5th Army, it was reported that dysentery was present in all regiments in a scattered manner.[657] Because of the urgent and strict precautions taken, the disease did not turn into an epidemic, and thus did not cause severe casualties.

Yet it was not possible to say the same thing for British, French or Anzac units. Even for the German units that were fighting side by side with the Ottoman units, dysentery appeared as a bigger problem. As described by Noyan, despite the fact that the Ottoman and German units, which had erected their quarters in a river basin on the slopes of Kocatepe in order to join the Sigindere battle were under the same conditions, most of the German soldiers were transferred to the hospital with dysentery, whereas the Ottoman soldiers rode out the battle with only a few cases of dysentery.[658] In other German units on different fronts, intestinal diseases were frequently seen and dysentery was at the top of the list among them. Although this disease was seen in a widespread manner, with the precautions taken, it recessed considerably in 1915.[659]

Dysentery was a devastating disease for British, French and Anzac units. This disease, which was seen almost in the whole army and known as "Gelibolu tirisi" or "Gelibolu galopu", was especially prevalent among the Anzac soldiers. It was reported that only between July 21-27, 1221 Anzac soldiers caught this disease. The British sources recorded at the end of July that the number of losses in previous fifteen days had been equivalent to the number that might be lost in a big attack.[660] As stipulated in the explanation made by the Sanitary Directorate, no one could survive this outbreak. Even the chief commander of the Allies, General Sir Ian

[657] ATASE, Kls no: 2422, D no: 46, F: (1/ 7 42).

[658] Noyan, p.48.

[659] Becker, p. 14.

[660] James, p. 221.

Hamilton, was among those who contracted dysentery.[661] The soldiers lost weight, their cheeks sagged and their faces became wrinkled in an unrecognisable manner. There was no sign of the healthy people who had embarked on the peninsula months ago. Hamilton wrote that "in my opinion, this was the real reason why the Greek fought for ten years to capture Troy".[662]

Since transferring approximately a thousand soldiers behind the front weakened the war force of the armies considerably, great efforts were paid to improve the physical conditions. But due to scarcity of the health teams and lack of proper planning, it was too late to take the necessary precautions against the epidemic diseases. Almost nothing was done to correct the diets of the soldiers or to improve the conditions that were causing the diseases until the end of July. Therefore, the disease spread among all detachments at a great speed. The reinforcements that arrived in August could not escape from catching dysentery, either.[663] However, a team made up of Australian physicians notified the general headquarters formally that they had determined dysentery and diarrhoea and a kind of serious paratyphoid in most of the privates in August. It was ordered that emetine be administered to all units for the treatment of the disease in September; nevertheless, this did not bring the desired results since it was not known for certain out of the patients with diarrhoea, which of them suffered from dysentery and which of them from intestinal diseases.[664] In addition to dysentery, typhoid fever and

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[661] ibid, p. 228.

[662] Moorehead, p. 189.

[663] It was understood that most of the soldiers brought in from Australia were carrying diseases as a result of medical examinations made in Egypt. They were carrying mumps, flu, measles and venereal diseases. The Australian Army Medical Corps had to deal with the condition of these reinforcements sent to Gallipoli. Tyguin, p.110.

[664] ibid, pp. 117-118.

paratyphoid (A-B) were also widely seen in the peninsula. Paratyphoid, which was seen in an aggravated manner in Gallipoli and Limnos, was ten times more widespread than typhoid fever. On the other hand, it was reported that out of 300,000 soldiers fighting in the region, 5,700 caught enteric fever and died before the middle of December, which clearly put forth that the precautions taken as of August were not sufficient.[665]

It was recorded that out of 43,553 who were discharged in August, 12,968 were dysentery patients. It was further indicated that only for the patients, the rate of discharge was 1.7% in Suvla, 5.1% in Seddülbahir (Hellas) and 7.5% in Ariburnu (Anzac).[666] As understood from these rates, the units in Suvla and Seddülbahir were in comparatively better conditions. The reason for that was the units in these locations were not stuck in a narrow area as in Ariburnu and the French units deployed in these areas brought their sanitary platoons with them and established the hygiene conditions within a short time.[667]

Precautions Taken against Dysentery

A serious struggle against dysentery seen among the Ottoman soldiers was started in May in all military units affiliated with the 5th Army. The precautions taken in this regard ensured that this disease was ridden out with fewer casualties by the Ottoman units when compared to the other combatants.

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[665] Arthur F. Hurst, *Medical Diseases of the War* (London: E. Arnold, 1918), p. 201.

[666] James, p.311.

[667] ibid, p.223.

First of all, when the disease was first seen, it was decided that all of the military units should be medically examined and those arousing the suspicion of the disease should undergo testing. Those whose diseases were certainly diagnosed were secluded from others and began to be treated. On the other hand, guidelines for dealing with smallpox, cholera, typhoid fever and dysentery vaccines[668] were sent to all units with the signature of the Minister of War and *Baskomutan Vekili* Enver Pasha and vaccinations and serum were administered to the soldiers. Furthermore, kilos of pure emetine and ipecacuanha were requested from the Directorate of the Sanitary Office in order to be used in treatment of dysentery.[669] It was known that these therapeutic precautions that were taken on time, though important, were not sufficient on their own. In order to be successful in the struggle, both therapeutic and protective precautions should be made simultaneously. For this purpose, some applications that were oriented to detecting the source of the disease were made.

As a result of the inspections made, it was understood that the sources of the disease were the toilets left uncovered and the contaminated water. Since the soldiers mostly were not aware of toilet manners, the tents were surrounded by human faeces. The physicians of the detachments first of all decided that the protective health precautions should have priority and therefore works for building proper field toilets and training the soldiers in proper hygiene were started.[670] Afterwards, it was shown how the field toilets would be opened and it was ordered that, if needed, soldiers should patrol the toilets in order to ensure that they were covered all the times and that the toilets should be disinfected with freshly slated lime and lime milk. It was

[668] ATASE, Kls no: 3499, D no: 25, F: (1/ 7 10-3).

[669] ATASE, Kls no: 2450, D no: 211, F: (1/ 7 10).

[670] Noyan, p.45.

further ordered that not only the toilets, but also the areas where the toilets were located and the taps should be kept clean. Besides, the food left over and the water used for washing the dishes should be poured into deep holes, these holes should always be kept covered with earth and be disinfected with lime from time to time.

The cleanliness of the water was also highly important in the struggle against the disease. In this regard, it was decided that tests should be conducted on all of the water springs in order to ascertain whether they were contaminated or not and that fountains should be built on these water springs. All water springs up to the fortified units in Kilitbahir, Kirte and Seddülbahir on the Rumelia side were examined. A soldier was ordered to keep guard on each fountain detected to be clean and therefore all water sources were kept under control for 24 hours. In this way, it was attempted to provide water from clean sources, to keep the drinking water in barrels with taps and to train the soldiers to have water from the barrels with glasses.[671] Furthermore, locations for tents, washing hands and field toilets were determined again and some arrangements were introduced in this regard.[672] Thanks to all of these precautions, dysentery among the Ottoman units was destroyed before it caused a calamity as in the Balkan Wars. It was estimated that out of 85,000 soldiers sent behind the front, 21,000 died because of dysentery during the Çanakkale battles.[673]

The army units of the Entente States, however, were affected much more by dysentery. As indicated above, the General Headquarters did not become aware of the disease until it was too late and failed to analyse the conditions that the soldiers were under correctly and completely, therefore the precautions taken did not work.

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[671] Noyan, pp.42,43.

[672] ibid, p. 48.

[673] Moorehead, p. 198.

The official diagnosis of the disease, which appeared on June, was made only in August. As of this date, orders such as "protecting the food from flies in the best possible manner" and "consuming less fruit" were issued. Nevertheless, no proper solution was offered for getting rid of the millions of flies and dust clouds. The Austrian Surgeon General Birrell recommended that fly nidus should be destroyed and flypaper hung on bushes. But it was not possible under the circumstances. Furthermore, fruit was not available to a single soldier in Gallipoli. Therefore, these orders or recommendations were far from the reality and could not be implemented.

The British and Anzac soldiers had the biggest difficulty with dysentery. The narrow land on which the units were deployed had major effects on this issue, for narrow lands usually necessitated that hospitals and cemeteries be established side by side. German General Kannengieser said that, "they suffered more than us and we suffered under the terrible sun and the smell of unburied corpses, from flies and lack of water."[674] However, the French were in relatively better position. For instance, the French units in Seddülbahir (Hellas) were removed from the difficulties the British and Anzacs experienced since they were deployed on more open land. The chamber pots issued to each soldier were used in the systemic destruction of the faeces. Furthermore, the order established by the sanitary units from the beginning of the war enabled them to take precautions against diseases without any delays. Therefore, diseases and losses were seen less among the French armies when compared to other armies of the Allies.[675] Dysentery could only be destroyed on November 1915, for

[674] Becker, p.13.

[675] James, p.223.

the heavy rains and cold weather that came with this month eliminated the environment of survival for the flies.[676]

Malaria

Malaria was one of the most important epidemic diseases faced during the Çanakkale battles. It was seen for the first time among the 15th Corps units on Kalvert Farm located on the Anatolian side of Çanakkale on May 1915. Abdülkadir Noyan was appointed as the Hygiene Consultant in order to prevent the appearance of diseases like cholera, typhoid fever, and the dysentery. Noyan first of all established a well-equipped bacteriology laboratory in a room of the Farm. Six Austrian-type bacteriology laboratory boxes he brought with him were used in the establishment of this laboratory. The laboratory had the ability to make all kinds of blood tests and epidemic disease analyses. All of the units were paid a visit and as a result of the first examinations, it was understood that cases of malaria were increasing at a dangerous rate at Kumkale and its environs. The source of the disease was a swampy land from Pinarbasi to Kumkale. The "kuleks" and anopheles mosquitos nested in this swamp, and increased in number with the coming of spring.[677] Malaria caused many casualties in the areas near to the swamp like Kumkale, Orhaniye, Erenköy, Pinarbasi and Geyikli.[678]

Since there was no way to drain the swamp and to start a struggle against malaria due to the war, orders on personal protection precautions and general

[676] Becker, p.317.

[677] Noyan, pp. 42,43.

[678] Abdülkadir Noyan, "Harp salginlari – Malaria," *Dirim* 9-10 (Istanbul 1940), p. 159.

hygiene rules were prepared and sent to all units via the commandership of the corps. Accordingly, net or mosquito nets would be attached to all windows of the buildings where the soldiers were staying in order to prevent the entrance of the mosquito and the soldiers themselves would be protected by wearing head mosquito nets and gloves. It was further decided that manure incense should be burnt near the tents to avoid the attack of mosquito clouds.[679] Based on the precautions taken, it was decided that each and every soldier in the detachments should be medically examined and that blood drawn from those suffering from fever and spleen growth should be sent to the Asian Group Laboratories. Via these examinations, the treatment of the soldiers who were carrying malaria microbe would be ensured.[680]

The precautions thus taken were put into practice immediately. The patients who were understood to have caught malaria were treated in the infirmaries. Those who were seriously ill were sent to Ezine or Çanakkale hospitals. With the coming of summer, the disease grew and started to cause deaths. It was reported that some of the forces on the Gallipoli front gave many casualties because of malaria.[681]

Meanwhile, medicine that could destroy the malaria microbe was not yet known in the Empire. The only medication available was quinine, but its quantity was not enough to protect the whole army. Therefore, it was deemed compulsory that soldiers of the locations where malaria was widespread be each given one gram of quinine twice a week during the summer and therefore protective measures be taken accordingly.[682] However, the precautions taken were of a protective nature rather

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[679] For the pamphlets with illustrations and detailed explanations on the precautions to be taken against malaria, see "Isitmanin Tevsi' Intisari," *Sihhiye Mecmuasi II,* Year I (Dersaadet Matbaa-i Osmaniye 1329).

[680] ATASE**,** Kls no: 2446, D no: 190, F. (1/7 5-11).

[681] Noyan, p.159.

[682] ibid, p. 45.

than therapeutic; hence it was not possible to stop the disease and tens of soldiers contracted the disease every day. The faces, arms and bodies of soldiers were full of mosquito bites. These soldiers, who were even unable to walk due to viral hepatitis and suffering from terrible pains, viewed death by bullet as a big chance. Sometimes, more than one disease could be seen in a soldier, as it can be easily estimated, this led to more dramatic events.[683]

Malaria was also an important problem for the armies of the Allies. It was reported that the disease was more prevalent in the units brought in from India, rather than among the British soldiers.[684] Nevertheless, since the Ottoman units were closer to the swampy land, the disease was more destructive to them. In the 5th Army, 116,985 malaria cases were reported, 6,661 of which resulted in death.[685]

Typhus

Typhus, which caused widespread outbreaks and a great deal of deaths along the Caucasian Front, never resulted in such a calamity at Çanakkale. Yet the typhus that appeared at the end of the war and during demobilisation brought forth a considerable number of military and civilian casualties.

As a matter of fact, typhus had been present endemically in Çanakkale, as in many other parts of Anatolia before the war. At the end of 1914, a serious outbreak of typhus was seen in Balikesir, Kepsut and Sarni and thereupon the local government took urgent precautions to stop the disease. Since Balikesir was situated

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[683] Steel-Hart, p. 318.

[684] Hurst, p. 196.

[685] Özbay, p. 238.

in a way that provided access to both the Marmara and Aegean regions and on a key route stretching to Istanbul, the threat the disease posed was far more important. Therefore, as soon as the disease started, the municipal authorities started to work in cooperation with the *Müdafa-i Milliye Cemiyeti*, which was one of the most active organisations in the region and initiated the struggle against the disease. The importance attached to public health during this struggle should be noted. The health panel incorporated within the body of the Society on one side applied the medical precautions and on the other side made its best efforts to explain the disease to the public and to train them against it. For this purpose, first of all, a "Health Declaration" was prepared by the Society on October 28, 1914 (15 Tesrinievvel 1330) and published as a pamphlet and sent to all villages through the gendarmerie. The declaration was also published in *Karesi* Newspaper. But, since the expected results could not be received in a short time, *Müdafa-i Milliye Cemiyeti* started to pay more attention to increasing the awareness against this disease and felt the necessity to make a second declaration on December 15, 1914. This declaration, which was prepared in a far more detailed manner when compared to the first using a plainer and clearer language, gave more concrete and decisive information to the public.[686]

Although these effective studies provided positive results in the city and in villages, they were not enough to stop its spread. One of the most evident indicators of this was that fifty typhus cases were recorded in Orhaniye village of Aydincik in the record of the sanitary events (*vukuat-i sihhiye cetveli*) on March 11, 1915.[687]

The approaching war increased the threat of a new typhus outbreak. This disease, which was endemic in many parts of Anatolia, could disseminate to the army

[686] Aydin Ayhan, "1914 Yilinda Balikesir'de Tifüs Salgini ve Müdafaa-i Milliye Cemiyeti'nin Iki Saglik Beyannamesi," *Tip Tarihi Arastirmalari* 9 (Istanbul 1999), pp. 221-222.

[687] ATASE, Kls no: 2422, D no: 46, F: (1/ 7 1-2).

deployed in this region via the new recruits sent. In order to avoid such a threat, the *Ordu Sihhiye Dairesi* decided that some disinfection precautions should be taken during the transfer to the 5th Army and that these precautions should be strictly observed. Accordingly, all transfer vessels would be disinfected by a sanitation column made up of two low level officers and twenty soldiers with sulphur before they departed from the ports.[688] This decision was applicable to all other units that would be transferred via land routes.

After the decision was adopted, sanitation platoons were established in all ports and railway stations where transfers were made and the necessary disinfection procedure was initiated. Nevertheless, as far as understood from several correspondences sent to the *Sihhiye Müdüriyet-i Umumiyesi*, the desired level of success could not be achieved, especially on the land route. For example, in a letter sent on June 30, 1915 (June 17, 1331) it was indicated that three typhus cases had been seen among the soldiers who were taken from Ankara, Konya and Hüdavendigar (Bursa) and transferred to the 5th Army via the Bandirma-Lapseki-Kesan route and that care was asked to be taken in the disinfection procedure during the transfer. It was requested that two mobile sterilisation machines be sent to Kesan for this purpose.[689] Furthermore, it was ordered that the military health officers there should act in cooperation with the civilian health officers to take the emergency precautions in order to prevent the disease and to avoid its spread in the army.[690]

While the precautions against typhus were emphasised on the concerned transfer routes, new arrangements were introduced at the transfer centres. For

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[688] ATASE, Kls no: 2422, D no: 46, F: (1/7 11-2).

[689] ATASE, Kls no: 2422, D no: 46, F: (1/7 19-1).

[690] ATASE, Kls no: 2422, D no: 46, F: (1/7 20-4).

instance, a medical company was established in order to have the transfer units arriving from Ankara disinfected at Haydarpasa and their quarters in tents were established around the railway station. Nevertheless the tents were demolished in a storm and therefore the disinfection operations of the soldiers were moved to the Cavalry Training School (*Süvari Tatbikat Mektebi*) after a while.[691]

During the transfer it was emphasized that the precautions should be prepared in order to prevent dissemination of the disease from the villages to the army units. As such the typhus that came to Edirne and the surrounding regions via refugees was a serious threat to public health. On June 1915 (June 16, 1331) Adil Bey, Governer of Edirne, sent a letter to the chief commandership under the title of important and urgent and indicated that refugees coming from Serbia had brought typhus to Edirne. As a result of the inspections made, it had been understood that refugees entering the city from Dimetoka and Mustafapasa gates had not undergone vaccination or disinfection procedures. Up to that date efforts to apply the disinfection operations of the refugees had been using the mobile sterilization machines of the units of the 2nd Corps deployed in Edirne nevertheless the authorities were left without this possibility after the corps left this place. As described by the governor, no result was received from the application made to the general headquarters of the Red Crescent Society in this regard. Under these circumstances the disease could spread among the public and the soldiers. The fact that such an important city as Edirne, which was on the route of transfer, came up against the threat of typhus posed a serious danger for the army. The Governor requested that two mobile sterilisation machines be sent for the two gates of the city.[692]

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[691] ATASE, Kls no: 2416, D no: 11, F: (1-8).

[692] ATASE, Kls no: 2422, D no: 46, F: (1/ 7 20-3).

The troubles encountered during transfer proved that typhus was a disease that should be focused on attentively. This truth was never forgotten throughout the war and the precautions that would stop the disease were never stopped, for it was known that the war could easily provide the conditions that would cause the appearance of typhus. The lack of proper hygiene, the difficulties faced in finding clean water, contamination and congestion were enough for the soldiers to become infested with lice. As a matter of fact, from the time the war started, one of the biggest problems of the soldiers at the front was lice. The disinfection and cleaning in military headquarters and training the soldiers in personal cleaning habits were deemed highly important. Furthermore, to avoid an outbreak, it was decided that mobile baths should be built to enable all soldiers to bathe once a week. For this purpose, in all medical companies of the divisions and in the environs, one or two wells were opened in the chambers where the bath and sterilisation machines were situated.[693] The vaccination of the soldiers, lice controls and lice extermination were never neglected.[694] All of these precautions prevented a possible typhus spread at the Çanakkale Front.

Typhus caused its greatest destruction in Çanakkale after the war ended. Two corps were left in Gallipoli Peninsula. Some of the units to be demobilised had left for Thrace and some others for Bandirma. The demobilisation procedures would be made in these two centres. Nevertheless, since the armies, which were exhausted due to a war of eight months, started to march without having rest or proper nutrition, this caused them to become weaker and more susceptible to diseases. As such, in a letter sent by the *Ordu Sihhiye Reisi* of the 5th Army to the General Directorate of the

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[693] *TSK*, vol 5, book 3, p.546.

[694] Özbay, p. 237.

Sanitary Office, it was indicated that typhus had been seen in Bandirma as of February 26, 1916 (February 13, 1331) and that the disease was especially prevalent among the soldiers. Upon this letter, a commission comprised of a discharge commander, an official charged with governing a district (*kaymakam*) of the area, a physician-in-chief from Bandirma Hospital and a municipal physician was established to conduct an examination of typhus in this area. The results were presented to the 5th Army as a report and guidelines of eight articles.

In the medical examination report prepared by the commission, the date and whereabouts of the disease, the places where it was seen the most and which precautions were taken against the same were explained in detail. The disease was continuing among both soldiers and public. Upon the appearance of the disease, the military health units had immediately taken the necessary precautions. It is understood that disinfection and quarantine works were highly important among these precautions. Upon the diagnosis of the disease, disinfection was immediately started with the sterilisation machine in the military hospital by using sulphur, formol and naphthalene, and lime was used in burial of the corpses.[695] In case the sterilisation machines were not enough, clothes and personal belongings were disinfected in field furnaces or bakeries.[696] Patients and those arousing the suspicion of disease were isolated in order to prevent further spread of the disease and patients with high fever were kept under medical surveillance.

The most important problem encountered in the struggle against the disease was the seclusion of the patients due to the crowding. The chaos in the hospitals made seclusion of the patients whose diseases were diagnosed as typhus difficult.

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[695] ATASE, Kls no: 2442, D no: 159, F: (1/ 7 2-5).

[696] *TSK*, vol 5, book 3, p. 546.

The problem could only be solved by hiring three houses close to the hospital and putting them into service as isolation units on May 4. Furthermore, for patients who would be dismissed from the hospital after their treatments had ended, a separate building was allocated where they underwent a quarantine of fourteen days. On the other hand, all units were vaccinated several times against the disease.

Since the disease appeared among the public, the precautions taken were enlarged to cover civilians as well. Since the government did not have quarantine units or isolation houses, the patients were kept under cordon in their own homes under the control of the gendarmerie, while it worked to build a seclusion house. The houses of the patients who were kept under cordon were disinfected from time to time.[697]

Despite all efforts, typhus spread from soldiers to civilians at a great rate and caused a big panic in the city. Upon the spread of the disease as of March 13, the number of patients increased and the four physicians at Bandirma Hospital worked for five days and nights without any sleep and showed extraordinary efforts. But it was not possible to attend to all of the patients. Therefore, it was requested that three physicians be send from Istanbul to help on March 18.[698]

Since dissemination of typhus in the region of the 5th Army constituted a great threat to the troops deployed there, maximum diligence was paid to the application of the precautions. The overall health of public, as well as that of the soldiers, was deemed highly important in order to receive the optimum results. The cooperation between the armed forces and civilians should be underlined here. The military authorities acted side by side with the civilian directors and officers in order

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[697] ATASE, Kls no: 2442, D no: 159, F: (1/ 7 2-5).

[698] ATASE, Kls no: 2442, D no: 159, F: (1/ 7 2-3).

to diagnose and destroy the diseases seen among the public on time and the military and civil physicians worked together in the application of the health precautions.[699] Furthermore, for the fast determination of the disease, based on the size of the settlement areas, *muhtar* (elected head of the executive body of the village), municipality representatives, clergymen, imams, etc. were entrusted with the duty of the notification of the disease, and even their signatures were required in this issue. In addition, a mid-wife, whose salary was being paid by the municipality, was appointed in order to prevent the women from hiding their diseases and the houses were controlled one by one. Women who were found to be ill were sent to hospitals and patients for whom vacant beds could not be found in the hospitals due to the crowding were sent to other settlement places and kept under medical surveillance for twenty-one days. All clothes and personal belongings of the patients were disinfected.[700]

These precautions, applied on the date when the report was prepared, June 23, 1916 (June 1, 1332), were not enough to destroy the disease. Therefore, the *Sihhiye Reisi* of the 5th Army prepared a new precaution package of eight articles, which would be applied to both the soldiers and the civilians of the area, and had it sent to all units in the form of guidelines. The summary of this package is as follows:[701]

1. Each detachment will establish a seclusion house, a medical examination unit, a bath and a *tathirhane* (sanitation unit) with a sterilisation machine and barrel equipment in its own location.

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[699] ATASE, Kls no: 2442, D no: 159, F: (1/ 7 3-15).

[700] ATASE, Kls no: 2442, D no: 159, F: (2/ 5).

[701] ATASE, Kls no: 2442, D no: 159, F: (2/ 5).

2. Lice controls will be made by the physicians and staff in the detachments. While the soldiers are taking their baths, their clothes and personal belongings will be disinfected.
3. When a patient suffering from the plague is detected in a detachment or in one of the residences, this person will immediately be medically examined by a physician and be sent to the medical examination unit, after undergoing a medical surveillance of a certain period. If a disease is diagnosed, he or she will be transferred to the seclusion house.
4. A low level officer of each detachment or owner of a residence will inform the civil or military physician of the region of any patient and the physician will immediately attend to the patient. If the patient is suffering from the plague, he will be sent to the medical examination unit and in case of an epidemic disease, to the seclusion house. Meanwhile, the household will bathe, their furniture and personal belongings will be disinfected and if possible, the house will be whitewashed. After these operations, a plate reading "an epidemic disease has been discovered in this house, do not enter" will be affixed to the door of the house and the concerned place will be kept under medical control for fourteen days and its contact with outside will be ceased.
5. The military and civil physicians will work side by side in the application of these precautions.
6. Congestion seen in the city and in towns will immediately be eliminated.
7. A sanitation platoon will be formed in each detachment or region and all detachments or residences to be disinfected will be taken care of this way.

8. The soldiers and the public will be asked to have their hair cut in order to stop the disease.

Positive results were started to be seen after these precautions were introduced and the disease was destroyed by the end of the year.

Typhus was seen in Thrace at the end of the First World War and caused two big epidemics. The first one was seen among the units gathered for demobilisation and was stopped at the end of a struggle of one month. In the meantime, the logistic provisioning troop quarters established for the demobilisation procedure was moved from Tekirdag to Lüleburgaz, whereas the logistic provisioning hospitals were moved to Gallipoli, Akbas, Kesan, Uzunköprü, Kirklareli and Tekirdag.[702]

The second spread showed its face in Thrace in 1918. Deserters and soldiers who were sent to their hometowns for medical reasons carried typhus back to the region of the 5th Army. The disease, which was first seen among the soldiers in Edirne and Babaeski as of January 1918, was disseminated among the public. In a declaration made by the Governor of Edirne, it was indicated that typhus was brought to the city by deserters and soldiers, and the Commander of the 5th Army was asked to ensure the disinfection of the soldiers in appropriate places.[703] Since the disease had enlarged its zone of influence in especially Edirne, Babaeski, Uzunköprü and Kesan after it disseminated among the public, a new plan for fighting the disease was introduced. In this regard, the General Directorate of the Health required that soldiers who had not yet recovered should not be sent to their hometowns and those to be transferred should be strictly examined by the Sirkeci and Haydarpasa *Sevkiyat-*

[702] Özbay, p.241.

[703] ATASE, Kls no: 3499, D no: 25, F: 4.

i Muhacirin Komisyonu.[704] It was further decided that soldiers who were determined to have caught the disease before their demobilisation should be sent to Haydarpasa, Fenerbahçe, Taskisla, Yildiz, Serviburnu, Tuzla, Ayastefanos, Gümüssuyu, Kuleli and Izmit hospitals in Istanbul.[705]

Meanwhile, sanitation units in which the disinfection of the soldiers would be made were started to be established in the region of the 5th Army. In this regard, a German fortification unit sent to the *Ordu Sihhiye Reisligi* of the 5th Army built sanitation machines and cleaning centres first in Uzunköprü railway station and then in Aydin (Yenikisla), Mugla and Burdur and furthermore, taught the construction workers how to build these facilities and therefore assisted in increasing their number.[706] Furthermore, a medicine against lice, called trikarozol (cresolum), which was brought from Germany for the sanitation of the soldiers, was sent to the units with its prescription. This medicine, which was sent as powder in packages, was to be sifted into the beds, underwear and wards of the soldiers and, in order to prevent the soldiers from becoming infested with lice, to be put in small bags and tied around the necks of the soldiers with a string.[707] Typhus was eradicated in July 1918 with these precautions.

Typhus was prevalent among the Anzac soldiers of the Entente States. It was alleged that the jamming of the military units in a narrow place had caused the appearance of the disease.[708] Typhus was devastating for neither Entente States nor the Ottoman Army during the Çanakkale Battles.

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[704] ATASE, Kls no: 2442, D no: 159, F: (1/ 7 3-53).

[705] ATASE, Kls no: 2457, D no: 256, F: (1-1).

[706] ATASE, Kls no: 3499, D no: 25, F: 14.

[707] ATASE, Kls no: 3499, D no: 25, F: (8-11).

[708] Tyquin, p. 118.

Cholera

Cholera showed its face after the Çanakkale Battles ended in the 5th Army region. The disease was mostly seen with the movement of the soldiers during redeployment to other fronts. In a telegram dispatched by the Chief of Medical Office of the Army of the 5th Army to General Directorate of the Sanitary Office, it was reported that cholera had started to be seen among the units in Bandirma, Tire and Izmir as of March.[709] As far as understood from the telegram, the *Ordu Sihhiye Riyaseti* came up against serious troubles in Izmir since the disease was seen there in its most virulent form. Since the health officers had been drafted due to the war, foreign physicians who knew very little Ottoman were working in the city and therefore it took time for these persons to take and to apply the necessary precautions. However, it was of vital importance that the precautions taken be applied immediately considering the size of the city and the seriousness of the disease. Therefore, the Director of Sanitary Office was sent a letter and it was asked that Ahmet Hilmi Efendi, physician of the town centre, who had been enlisted, should be demobilised in order to help the director of sanitation of the city.[710] The precautions were immediately applied after this arrangement. In this regard, the servicemen underwent a strict medical examination and disinfection. Those found to have caught the disease were quarantined and sent outside the city and those who had been in touch with them were kept under medical observation for a while. Vaccination was started in order to prevent the disease and for this purpose, six

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[709] ATASE, Kls no: 2431, D no: 96, F: (1/7 2).

[710] ATASE, Kls no: 2431, D no: 96, F: (1/7 2-16).

vaccination stations were established in different parts of the city and everyone in the city, both soldiers and civilians, was vaccinated against the disease through the cooperation of the military and civil health officers.[711] Furthermore, since the appearance of the disease among the soldiers mostly posed a danger to the overall heath of the city, it was deemed appropriate that the military units should be settled in the surrounding areas of the city and the *Ordu Sihhiye Riyaseti* was asked to provide tents in order to act in compliance with this arrangement.[712]

The health problems that emerged during the transfer of soldiers from the Çanakkale Front to the other fronts caused considerable delays in the transfers. The appearance of cholera cases especially in the units of the 5th Army and in many other parts of Anatolia as of March revealed the fact that health arrangements had not been made with diligence during the transfer operations. This created a serious threat for especially Istanbul, which was the centre of the transfers. As seen in the official correspondences, many letters were sent to the Ministry of War in this regard and new arrangements were asked to be imposed for removing the concerned threat. Thereupon, the General Directorate of the Sanitary Office published a precautions package in order to be sent first of all to all army units on June 6, 1916 (24.3.1332) and afterwards, published a circular letter to all physicians in chief on the measures to be applied on May 22, 1916 (09.03.1332).

When the precautions of April 6 are examined, one can say that decisions oriented to preservation of the general health of the city were focused. For instance, it was stipulated that soldiers arriving in Istanbul from anywhere in Anatolia should, before entering the city, disembark at Tuzla railway station and undergo disinfection,

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[711] ATASE, Kls no: 2431, D no: 96, F: (1/7 2-17).

[712] ATASE, Kls no: 2431, D no: 96, F: (1/7 2).

medical examination and bacteriologic tests and should only be allowed to enter the city after they had been vaccinated with the cholera vaccine twice in intervals of two days and that no exceptions should be made.[713] The point to be underlined when a general evaluation is made is that based on the experience gained during the Balkan Wars, both protective and therapeutic measures were included in this package and it was decided that everyone was to go through these measures, soldier and civilian. Such an arrangement is remarkable since it indicates the level reached in the struggle against cholera during the First World War.

A circular, in addition to the precautions package sent to the physicians-in-chief with the signature of Süleyman Numan on May 22, was, however, focused on the administration of the vaccine. Detailed information on the course of the disease and of the vaccination was asked from the physicians-in-chief. Accordingly, it was decided that cholera cases seen in both army and among the inhabitants of the area should be notified to General Directorate of Sanitary Office on a daily basis and that among those who had caught the disease, how many had been vaccinated and how many had not been vaccinated, the dates of their vaccinations and how far the disease had spread should be further indicated via daily telegrams.[714] Deficiencies and chaos in the vaccine applications played a major role in obtaining such a decision. As mentioned above, the most important reason for the absence of major spreads during the Çanakkale Battles was the vaccines administered to the soldiers numerous times. This application was deemed highly important both during the transfer and the period when the diseases appeared. However, there might be times when troubles were encountered during the administration of the vaccines or when the vaccination was

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[713] ATASE, Kls no: 2431, D no: 96, F: (1/7 2-25).

[714] ATASE, Kls no: 2431, D no: 96, F: (1/7 2-4).

not done properly. In order to monitor whether the vaccinations were being done properly or not, it was decided that each soldier vaccinated should be given a certificate of vaccination and that these certificates should be controlled in every place deemed necessary and at each railway station.

This was a suitable decision adopted in order to prevent the diseases; however, as understood from the official correspondences, some problems were encountered with in practice. For example, in a telegram dispatched to the Directorate of the Sanitary Office from the physician in chief of the quarantine unit of Tuzla, it was stated that even though almost all of the soldiers transferred to the quarantine unit had been vaccinated in their own units, they had not been given any certificates and that in the railway stations at which they had arrived during the transfer, all of them had been given one certificate,[715] which not only made the follow-up of the vaccination procedure more difficult, but also caused deficiencies in the precautions taken against the disease. Therefore the aforementioned decisions were adopted by the General Directorate of the Sanitary Office on May 22 and that it was deemed obligatory that each and every soldier vaccinated be given a certificate of vaccination by the physician in chief of the detachment and the application be notified to the Directorate of the Sanitary Office daily.

Cholera could not be stopped in Istanbul or in other parts of Anatolia despite the strict implementation of the decisions taken and observance of their results with care. Though it cannot be said that the outbreaks seen in this era were as big as those seen during the Balkan Wars, cholera remained a problem of the government and of the armed forces from 1916 to 1918, the year the war ended. The news coming in

[715] ATASE, Kls no: 2446, D no: 190, F: (1/7 23-1).

June was that the disease had also spread in Istanbul. It should not be forgotten that developments causing the intense transfer operations in Istanbul caused the appearance of this disease in the capital city again, for in those days, some of the units of the 5th Army at the Çanakkale Front and units of the 2nd Army in Istanbul were being transferred to the Iraq and Palestine Fronts through Istanbul. When the decision of the Ministry of War to send some troops to Galiçya Front adopted on June 27, 1916 was added, Istanbul became a defence line city again.[716]

The 15th Corps, which was to be sent to Galiçya, was made up of two divisions in Çanakkale. Nevertheless, it could not be said that its soldiers were healthy. For example, when the order was received, the 25th Division, attached to this corps, had 11,876 soldiers, 132 of whom were in convalescence, and 159 of whom were in hospital.[717] The 15th Division in Izmir was already fighting cholera. Since the number of soldiers in these divisions was not enough, it was decided that new recruits should be brought from cities like Ankara and Kastamonu. In accordance with the decision made on April 6, units coming from Anatolia in order to join the 15th Corps began to be transferred to Tuzla in order to undergo medical examinations and disinfection. But diagnoses of cholera in most of the new recruits put the authorities into a difficult situation. In the daily reports sent from Tuzla quarantine unit, it was put forth that most of the cholera cases were seen in soldiers coming from Ankara, Kayseri, Osmancik and Iskilip. Upon realising the source of the disease, a panel under the presidency of two physicians were sent to Ankara with disinfection

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[716] *TSK, Birinci Dünya Harbi'nde Türk Harbi, Avrupa Cepheleri* (summary) (Ankara: Genelkurmay Basimevi, 1996), p. 90.

[717] Özbay, p. 284.

devices. The panel was commissioned to conduct the medical examinations of the soldiers to be transferred, to visit the inhabitants of the area and to vaccinate them against the disease.[718]

It was understood that the cholera in Tuzla disseminated mostly from the soldiers coming from Anatolia, but it was also known that this disease continued in the region of 5th Army in those days. Strictly examining the soldiers and refugees coming from this region was highly important for the overall health of Istanbul. Since the sea route was preferred most of the time for the transfer, it was decided that the medical inspection should be made mainly on the Straits. For this purpose, control points were assigned in some ports and it was deemed compulsory that everyone arriving to or departing from the ports should undergo medical examination and disinfection. It is possible to follow the procedure in this regard from a letter sent by the General Directorate of Health to the Directorate of the Sanitary Office on June 14, 1916 (June 1, 1332). It is understood from this letter that for the medical examination and disinfection of ships coming to Istanbul from Marmara ports or going to Marmara ports from Istanbul, a sanitary station and a commission for contagious diseases were established in the Black Sea Strait, Manastiragzi. Ships passing through the Straits were controlled there and soldiers carrying cholera or those arousing the suspicion of the disease were separated and sent to a *tecrithane*, whereas civilians were sent to a *tecrithane* or to the cholera hospitals of the Municipality of Istanbul.[719] The remaining passengers of the vessels were directed to the quarantine unit of Tuzla or Manastirgazi in order to make the seclusion and

[718] ATASE, Kls no: 2434, D no: 110, F: (1/7 5-44).

[719] ATASE, Kls no: 2434, D no: 110, F: (1/7 5-5).

disinfection operations.[720] The execution of the concerned procedure rested with the General Directorate of the Health of Borders.

As far as understood from the official correspondences, in a certain period, passenger ships arriving from ports along the coasts of the Marmara Sea were directed to the Galata Quarantine House for the necessary surveillance. Furthermore, a new arrangement was introduced in this regard and it was stipulated that the vessels that would berth at the quarantine house should complete their procedures before the sunset, whereas those that arrived at Istanbul at night were prohibited to berth at the port, but were kept waiting the next morning to start the procedures.[721] Besides the aforementioned applications of *Hudud-i Sihhiye Müdüriyeti* for the arriving or departing vessels, some incidents that took place in the local ships in the city deemed it necessary to apply the precautions to these lines as well. One of the most striking examples that can be given in this regard is a warning letter sent by the Directorate of the Sanitary Office. The letter was written upon allowing a soldier, who had caught cholera and therefore was about to be sent to Serviburnu Hospital, to get on a very crowded *Sirket-i Hayriyye* vessel. This soldier died between Beykoz and Yeniköy. The Directorate emphasised the danger of sending a patient in a crowded passenger ship and requested that an arrangement should be made and from that moment on those carrying contagious diseases should under no circumstances be allowed to get on passenger ships.[722]

[720] ATASE, Kls no: 2434, D no: 110, F: (1/7 5-1).

[721] ATASE, Kls no: 2434, D no: 110, F: (1/7 5-97).

[722] ATASE, Kls no: 2442, D no: 159, F: (1/7 3-23).

In spite of the fact that the transfer was made in accordance with these arrangements, the dissemination of cholera in Istanbul could not be prevented. Upon the appearance of the disease among the inhabitants of the city on June 7, 1916 (May 25, 1332), the health measures were increased. Health procedures for the civilians were under the management of the armed forces, though for a short period of time, due to the military activity in the capital city in those days. For instance, as soon as being informed that an epidemic disease case had been seen in the city, the Director of the Sanitary Office, Süleyman Numan, ordered that four sanitary cars should be given under the command of the Commission for the Transfer of the Weak and the Refugees of Sirkeci (*Sirkeci Sevk-i Zuefa ve Mecruhin Komisyonu*) and that two sanitary cars should be given under the command of the Commission for Transfer of the Weak and the Refugees of Haydarpasa (*Haydarpasa Sevk-i Zuefa ve Mecruhin Komisyonu*) in order to be used in transfer of the patients and it was further ordered that these cars should be kept ready day and night in their garages.[723] Furthermore, it was decided that civilians should also be treated in the military hospitals reserved for the cholera patients,[724] and under the orders of the *Bahriye Naziri*, a cholera ward of twenty beds was opened for the civilians in Central Hospital of the Navy.[725] A hospital for contagious diseases with a capacity of 200 beds was established in Galata and worked for the treatment of civilians.[726] The efforts paid based on these precautions finally resulted in success and cholera was stopped in Bandirma, Izmir

[723] ATASE, Kls no: 2431, D no: 96, F: (1/7 2-35).

[724] ATASE, Kls no: 2434, D no: 110, F: (1/7 5-56).

[725] ATASE, Kls no: 2434, D no: 110, F: (1/7 5-46).

[726] *TSKT.*, vol 5, book 3, p. 547.

and Çanakkale regions in August 1917.[727] In Istanbul, however, the disease continued until September but lost its effect entirely after this date.[728]

Cholera did not appear as an epidemic in the armies of the Entente States during the war. The vaccination of the soldiers in advance played an important part in this fact. In accordance with the records of the War Office of Australia, all soldiers sent to the peninsula had been vaccinated against typhoid fever, cholera and smallpox. Since the vaccination program had been applied in all units obligatorily, the disease was prevented.[729] This was one of the rare applications that could be deemed successful during the war.

Other Epidemic Diseases

Scurvy was a disease seen the most frequently during the Çanakkale battles among the soldiers. It was recorded that the skins of the arms and hands of the soldiers became white and that their gums swelled and bled due to lack of vegetables in their diets. Each and every wound and scratch became inflamed due to lack of vitamins.[730] This problem was existent for soldiers on both sides. But, as far as understood from the official correspondences, at first, some mistakes were made in the diagnosis of the disease.[731] Dr. Abdülkadir Noyan, who was appointed to inspect the units in Gallipoli and its environs, indicated that as of

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[727] ATASE, Kls no: 2450, D no: 211, F: (1/7 9-1).

[728] ATASE, Kls no: 2446, D no: 190, F: (1/7 23-1).

[729] Tyquin, p. 119.

[730] Steel-Hart, p.307.

[731] ATASE, Kls no: 2442, D no: 159, F: (1/7 3-6).

March, scurvy had begun to be seen among the soldiers in this region. After diagnosing the disease, Noyan had the soldiers whose gums were bleeding secluded from the others and had them eat some vegetables growing in that area and rich in vitamins unripe or as salad.[732] In many letters sent to *Ordu Sihhiye Riyaseti* in these days, it was written that scurvy was being seen in other units attached to 5th Army. Dr. Mayer, Consultant to the Sanitary Office, alleged that 1,000 scurvy cases had been seen among the units in March, but with the arrival of fresh vegetables from Istanbul, the disease had been stopped. Noyan believes that, though close to the truth, these figures were exaggerated.[733] Whatever the figures were, the truth was that scurvy was prevalent among the soldiers in this region and that aggravation of this disease was prevented by means of feeding them with fresh vegetables and cereals in summer. Yet the disease continued to exist until the end of October.[734]

In a letter sent to the Directorate of the Sanitary Office on December 14, 1917 (14.10.1333), it was reported that sleeping sickness had been seen among some units of the 5th Army and that this disease disseminated at great speed and caused great concern. As followed from mutual correspondences, the Hygiene Consultant of the Army was sent to the detachments where the disease had been reported by the Directorate in order to make medical examinations on this disease, the results of the concerned examination were submitted to the relevant authorities in a report and the disease was destroyed in a short time with the precautions taken.[735]

On the Çanakkale Front, some respiratory tract diseases, especially influenza, were seen as of August and many lost their lives due to these diseases. In accordance

[732] Noyan., p. 42.

[733] ibid, p.48.

[734] ATASE, Kls no: 2422, D no: 46, F: (1/7 47-1).

[735] ATASE, Kls no: 2450, D no: 211, F: (1/7 8-23).

with the official records of Austrialia, 110 Anzac soldiers died from influenza in October.[736] Other than this, both sides had many casualties due to enteric fever, diarrhoea and other intestinal diseases. Furthermore, deficiency disease, rheumatismic diseases, tachycardia, diphtheria, some neurotic diseases, ulcers, gonorrhea and syphilis were also seen among the soldiers at the front.

The Çanakkale Battles, which started on April 1915 and ended on January 1916 lasted for 259 days and resulted in the defeat of the Entente States. Nevertheless, the official figures at the end of the war reveal the fact that both parties left the battlefield with incredible losses. The Entente States sent almost half a million soldiers to the Gallipoli peninsula and lost 252,000 of them. Despite the contradictory figures on the part of the losses of the Sublime Porte, the casualties of the Ottoman Empire exceeded 250,000.

The evaluations made at the end of the war put forth that the Çanakkale Battles could not be accepted as ordinary battles. Besides their importance in terms of military strategy or international politics, the significance of this war was enormous when the technology is taken into account. The Entente States benefited from the newly-improved technology of the era and many new methods and conducted the biggest amphibic operation on the Gallipoli peninsula. The use of submarines and aeroplanes, air bombing, landing on enemy shores by means of small boats, the use of wireless and many other new inventions marked these battles and changed the course of the wars that would be fought in the future. Many of these inventions and techniques would be used during the Second World War. Despite such new technology and inventions, the health organisation of the Entente states remained on a surprisingly primitive level. A total disappointment can be detected in

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[736] Tyquin, p. 120.

both the war health plan and the coordination of the same and in the health services during the war, which were the least focused sides of this war up to this date. However, it is seen that in the diaries and letters of many soldiers published after the war, this was the main focus of the soldiers. Soldiers and staff, who knew how to use the war technology or weapons very well, were deprived of a proper solution when it came to struggle with the diseases. Due to the negative conditions at the front and the medical deficiencies, many soldiers lost their lives to disease. Official statistics developed by the military authorities verify this fact. In accordance with British documents, 410,000 British and 79,000 French soldiers, in total 489,000 soldiers, participated into the Çanakkale battles. At the end of the war, the casualties of the British were 205,000 and it was recorded that 90,000 of these had died due to diseases. The total number of casualties of the French, however, was 47,000.[737] The Ottoman Army sent 500,000 soldiers to Çanakkale and lost 251,309 of them. 21,498 of the losses were due to disease. Furthermore, 64,440 soldiers were left out of the war due to various diseases and sent behind the front.[738]

The Demobilisation Procedure at the End of the War and the Arrangements Made

The First World War ended with the withdrawal of Bulgaria on September 29, 1918, which was followed by a ceasefire by the Ottoman Empire and Germany. The Entente States signed a truce in then Mondros Port of Limni Island with the Sublime Porte on the date of October 30, 1918 and thus finalised their military

[737] Aspinal – Oglander, vol. 2, p. 484.

[738] Moorehead, p. 302.

victories politically. The Mondros Truce was a document of 25 Articles with very severe provisions on the part of the Ottomans. Articles 5, 16, 17 and 20 of the Truce foresaw some military restrictions and demobilisation of the army and these were asked to be applied immediately. Therefore, the demobilisation procedure of the army was initiated soon after the Truce was signed. Epidemic diseases were a topic of discussion during this demobilisation, too, for not examining the soldiers who would be sent to their hometowns thoroughly could cause the whole country be exposed to illness. Therefore, the Director of the Sanitary Office Süleyman Numan Bey published a circular letter in order to be sent to all armies on the demobilisation on November 3, 1918 (3.11.1334).

In the circular, it was ordered that all soldiers subject to demobilisation be vaccinated with smallpox, cholera and typhoid fever of two centimetres once and that they should undergo disinfection procedures.[739] Furthermore, a certificate of vaccination should be given to each and every soldier vaccinated in order to facilitate the follow-up and control of the vaccination. These documents would be published by the Second Branch of the Medical Office in Istanbul in 60,000 copies and sent to all army units.[740] The distribution of the certificates of vaccination was vested with Asaf Bey, who was appointed as the transfer officer of Istanbul.[741]

According to the circular published, no one would move without their certificates, the certificates would be controlled everywhere and those whose vaccines were lacking would be examined by the physicians-in-chief of the detachment or the relevant institution. As a result of the examination, the

[739] ATASE, Kls no: 3499, D no: 25, F: (20-8).

[740] ATASE, Kls no: 3499, D no: 25, F: (8-41).

[741] ATASE, Kls no: 3499, D no: 25, F: (8-39).

administration of the vaccine again or disinfection could be decided. The aim was to leave no one unvaccinated.

A separate arrangement was made for sanitation. First of all, it was decided that *tathir* (sanitation) centres should be established at each front. These centres were to be prepared and their officers and materials were to be sent by the armed forces. Furthermore, those units that did not have sufficient amount of vaccines or that did not have them at all were required to inform the *Ordu Sihhiye Riyaseti* of the amount and type of vaccine they needed at once. In the circular, Akbas, Gallipoli, Tekfurdagi and Uzunköprü were determined as sanitation centres for the Çanakkale region. It was deemed appropriate that for the units that would pass Gallipoli, a bath close to the port should be used. A mobile sterilisation machine and vaccine in sufficient amounts were sent to this bath from Gallipoli Hospital.[742] It was decided that a sanitation centre in Istanbul should be opened in Haydarpasa. Since the demobilisation would be organised mainly in Istanbul, it was planned that the disinfection of ten thousands of soldiers would be made there. As such, Haydarpasa remained one of the most important transfer centres during the demobilisation. In accordance with the records of the Directorate of Sanitation of the Armed Forces (*Tathirat-i Askeriye Müfettisligi*), 17,628 soldiers were disinfected at the Sanitation Institute of Haydarpasa in January.[743]

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[742] ATASE, Kls no: 3499, D no: 25, F: (20-8).

[743] ATASE, Kls no: 2457, D no: 256, F: 2.

General Assesment

The First World War brought many catastrophes to the whole world. As a result of the evaluations made at the end of the war, it was acknowledged that more than ten million soldiers died and almost five million civilians lost their lives due to invasions, bombardment, starvation and disease.[744] The Ottoman Empire went through the biggest demographic decrease in its whole history, lost its political existence and finally declined. Even though the total number of casualties of the Sublime Porte is not known, the figure is estimated to have been between 1,500,000 and 2,500,000. The death figures given by Ahmet Emin, based on the statistics of the Ministry of War, are as follows:

Table 11:

Year of War	Reported Sick	Reported wounded	Deaths from sickness	Deaths from wounds
1	409,560	225,537	57,462	21,988
2	853,079	314,936	126,216	21,986
3	947,075	48,667	133,469	8,081
4	844,878	122,697	84,712	7,407
Total	3,054,592	711,837	401,859	59,462

In accordance with the data given in the table above, the number of dead was reported as 711,837, whereas the number of sick was reported as 3,054,592. 59,462 died because of wounds and 401,859 from diseases. These figures suggest us that diseases during the First World War were far more destructive than artillery or rifles,

[744] Gilbert, p. xv.

just as in the Balkan Wars. The total amount of casualties of the Sublime Porte due to epidemic diseases on the four fronts throughout the war was as follows:[745]

Table 12:

Disease	Reported cases	Deaths
Malaria	461,799	23,351
Dysentery	147,000	40,000
Fever	103,000	4,000
Typhus	93,000	26,000
Syphilis	27,000	150

The losses during the war were not limited to soldiers. Many physicians and health officers of the Ottoman army were either shot to death or lost their lives due to disease. Even if it is claimed that the Sublime Porte participated in the First World War with 2,998,321 soldiers, this figure only remained on paper. The number of soldiers of the Empire did not exceed 1,200,000 during the war that lasted four years and three months. The number of physicians providing health services to such an army was indicated as 2,555. Furthermore, these physicians were ethnically diverse. According to the imperial records, 1,173 Ottoman, nine Greek, seventeen Armenian and three Jewish physicians worked in the health services of the army. Furthermore, there were 598 Ottoman, 331 Greek, 116 Jewish and 79 Catholic-Maronite physicians who were kept as reserves. As seen, the proportion of the physicians to the overall number of the army was considerably small, when these figures are compared to those of the German Army, the insufficieny of the health services in the Ottoman Army is evident.

[745] Ahmet Emin, *Turkey in the World War* (New Haven: Yale University Press, 1930), pp. 252-253.

In comparison to the 2,555 physicians in the Ottoman army during the First World War, there were more than 24,000 physicians in the German army and whilst two-thirds of them were working at the fronts, the remaining one-third worked in Germany. Additionally, 3,000 physicians were working as attached to the Red Cross and 600 dentists and 1.800 pharmacists provided health services in the army. On the other hand, the Directorate of Health of the German Armies, in the Congress of Medicine held on May 2, 1916 in Warsaw indicated that 92,000 medical soldiers and nurse attendants, 72,000 volunteer nurse attendants in Germany and 22,000 volunteer nurse attendants at the fronts and 6,800 nurses were working in the German armies.[746]

Throughout the war, many physicians and sanitary officers, from both the Ottoman and German armies, lost their lives. According to the information provided by the General Staff, the number of physicians who passed away at and behind the front was 349. In a study conducted by Adnan Ataç, the number of physician and pharmacist staff, who passed away during the First World War, was 300.[747] Furthermore, Mazhar Osman published the detailed identities of medical personnel who died between November 16, 1914 (3 Tesrinisani 1330) and April 3, 1917 (April 3, 1333) in a magazine entitled "*Sisli Müessesesi'nde Emraz-i Akliye ve Asabiye Müesseseleri*" and indicated the number of medical personnel who died in this era as 215. Some of the names included in the list of Mazhar Osman cannot be found in the list of Ataç.[748] When the two lists are combined, it is seen that the total number of

[746] Dr. Refik, "Cihan Harbinde Türk Ordusu Etibba Istatistiki," *Askeri Sihhiye Mecmuasi*, April 1338 Issue 5, pp. 131-132.

[747] Adnan Ataç, *20. Yüzyilda Sehit Olan Türk Saglik Subaylari* (Ankara: Gata Basimevi, 1997), pp.9-69.

[748] Sahap Erkoç and Aykut Kazancigil, "Osmanli Ordusunda I. Dünya Savasinda 3 Tesrinisani 1330-3 Nisan 1333 Tarihleri Arasinda (1914-1917) Sehit Olan Saglik Subaylarinin Listesi," *Tip Tarihi Arastirmalari Dergisi* 10 (June 2001), pp.72-88.

medical staff losses exceeds 300 and a figure closer to the one supplied by the General Staff is reached. When the ratio of number of losses is considered to the number of physicians in the army, an extremely high figure of 136.6 per thousand is obtained. It is understood that most of the physicians lost their lives due to the epidemic diseases; death by armed conflict was rare. The most evident indicator of this is that the reason for the deaths of 271 medical staff out of the 300 whose identities were listed by Ataç was epidemic diseases especially like typhus, typhoid fever, cholera, dysentery etc.[749]

It is known that the casualties of Germans in terms of physicians and medical staff were also high. In the information supplied by Dr. Refik Bey, citing the Director of Health of the German Armies as reference, it was put forth that the number of physicians decreased to 18,325 in May 1918, with casualties of 6,740 in Germany and 11,585 at the fronts. It was further indicated that the number of physicians decreased to such a degree even the students of Faculty of Medicine were enlisted.

The German military health organisation lost 1,325 physicians in total by the end of the First World War. The proportion of this figure to the overall number of physicians was 54.2 per thousand. Out of all physicians who died, 564 (23.0 per thousand) died during the armed conflicts or due to wounds, whereas 760 (31.2 per thousand) died from the epidemic diseases. Furthermore, based on the records, 2,149 physicians were wounded and 467 were lost.[750] These figures put forth the deficiency of the health services in the Ottoman armies and how serious the losses of the health companies were.

[749] For the list of physicians who died because of typhus and for the related correspondence. ATASE, Kls no. 2982, D no.73.

[750] Dr. Refik, p. 132.

CHAPTER III

CONCLUSION

The turn of the twentieth century brought true catastrophe to the Sublime Porte, collapsing an Empire of six hundred years with wars coming one after another, rebellions and political upheavals. When the time period between 1911 and 1923 is taken into account, only twenty-two months of peace can be identified among the five great, unending wars. The Balkan Wars and the First World War, which constitute the scope of this thesis, are regarded as the most significant of these five wars which brought the end of the Empire.

Having lost almost all of its territory in Rumelia with the Balkan Wars, the Ottoman Empire also lost a considerable amount of population. Economic problems, dispiritedness and inner turmoil were widespread throughout the remaining lands. In addition to all of these negative results, the sudden and unexpected defeat in the Balkans drove a great tide of refugees into Anatolia. When the First World War broke out, there were 300,000 refugees who had come from Rumelia and who had not yet been fully settled. The health status of these people was precarious at best.

On August 1914, the Ottoman Empire suddenly found itself in the war as a result of a fait accompli and, after a mobilisation period of three months, Ottoman soldiers were sent to the fronts. Since the preparations could not be completed within such a short time, the soldiers were deprived of proper food, clothes or any other war equipment. On the battle field, they faced well-equipped enemy forces in superior numbers, ready to use their technological superiority up to the bitter end. Naturally, the Ottoman Empire paid the price of this with the health and lives of its people.

The Sublime Porte lost more than half of its territory and population at the end of the First World War. The foremost reasons of this were the war and the epidemic diseases that emerged due to the war. Since we are deprived of proper death reports or casualty statistics for the Ottoman army, we do not know the exact numbers of losses due to combat and due to diseases. Nevertheless, the research conducted on the archive documents stipulates that most of the Ottoman soldiers fighting on most of the fronts during the war were lost due to the epidemic diseases. The statistical data incorporated by the official documents of the Chief Staff verify this result. In these statistics, it is indicated that during the Balkan Wars, 50,000 soldiers were killed by the enemy, whereas 75,000 lost their lives to diseases. In the records on the First World War, however, the number of soldiers who were wounded and died was 59,462, whereas those who died from diseases were 401,859. These figures indicate that the death ratios between these two groups reached terrifying dimensions by the end of the four-year conflict.

The inefficiency of the health organisation and of the health services played a major part in this result. In both of these wars, health services were inadequate both at and behind the front and ten thousands of soldiers and civilians were lost due to organisational mistakes. At the end of the war, it was acknowledged that health services and hygiene were two important factors that directly affected the health of the troops and the result of the war.

On the other hand, the unfavourable experiences gained during the war made it compulsory to accept the modern medicine applications, especially against the epidemic diseases. For instance, in order to stop the spread of cholera during the Balkan Wars, for the first time in the Empire, the cholera vaccine was started to be produced and administered in Gülhane in 1912. Similarly, the typhoid fever vaccine

was administered for the first time during the Balkan Wars in the army units deployed in Çanakkale and Izmir. Discussions on typhus and typhoid fever held in Gülhane ensured the acceptance of the modern medical facts on the diagnosis of typhus during the Balkan Wars. It was later acknowledged during the First World War that the disease spread via lice and soldiers and civilians at the Caucasian Front underwent strict disinfection procedures. In addition to the mobile and fixed sterilisation machines brought from Europe, field furnaces and steam boxes, which were entirely the innovation of the Ottoman staff, were used for disinfection purposes. Medication entirely prepared by modern medical methods was applied for the removal of the lice, and furthermore, typhus vaccine, which was developed by professors at Gülhane, Resat Riza (Kor) and Mustafa Hilmi Bey, was applied in the Ottoman army as of 1915, for the first time in the world.

Again during the First World War, dysentery and plague vaccines were developed in the laboratories and used in the army. These protective health measures, on one hand provided the opportunity to struggle against the epidemic diseases in an efficient way, on the other caused the Empire to abandon the traditional medical methods. Another issue that should be noted was the attitude of the State towards accepting and applying the modern methods in medicine.

The need for manpower during both Balkan Wars and the First World War obliged the state to preserve the health of its people. Since diseases like cholera, typhus, and dysentery, decreased the productive population considerably, the State had to follow a health policy which was far more effective when compared with those of the previous periods. To wit, the health services provided by the State acquired a shape of obligatory services based on the conditions of the war, instead of those provided voluntarily. The state perceived the health services as one of its basic

responsibilities, and incorporated the health services, which were accepted as being among the most important features of the social state, into its policies. In spite of the fact that execution of the health services by the state had been initiated in earlier periods, due to the lack of proper planning, it had not been possible to overcome the disorganisation. This deficiency was felt deeply in the health problems encountered during the wars. It is worthwhile to note that military health services were the first topic of interest started to be dealt with in the restructuring efforts commenced immediately after the Balkan Wars. Without doubt, this was one of the most significant developments in the establishment of the modern state.

Another dimension of the health services executed by the state during the war was the strengthening of centralism. The state's offer of health services to the individuals that made up the society facilitated its intervention into the social and daily lives of these individuals. The most remarkable example was keeping the patient under quarantine with his/her family in their house, which was initiated with the cholera spread during the Balkan Wars. The state, penetrating all areas of the private life, legitimised this control under the name of the struggle against the epidemic diseases. From their eating and drinking habits to their clothes, and their affairs with one another, the state kept the daily lives of the people under its control and made them feel this control.

Naturally, the ethical and religious dimensions of the issue were also taken into consideration in an attempt to prevent resistance to these applications. The religious orders decreed for the quarantine and vaccine applications can be evaluated in this regard. Nevertheless, when the relevant documents are examined in detail, it can be seen that from time to time serious reactions to these applications arose from different segments of the society or significant efforts were made to avoid them. For

example, it is known that during the quarantine applications, some people fled with some social concerns and the state charged its armed forces or enacted laws to ensure the continuation of the applications it adopted. A similar tendency is observed in the area of vaccination. People are seen to have hidden their patients from the authorities and tried to treat them not with the modern methods that were strange to them, but with the traditional methods. Yet the state presented itself as the only protector of both the soldiers and the public via the health service it tried to establish and in fact strengthened its influence to a significant degree.

The health problems that arose with the wars played a major role in the establishment of social cooperation and a national identity in the Ottoman Empire. Some semi-official aid organisations that proved themselves helpful to both servicemen and the public emerged during the Balkan Wars and the First World War. Especially the Red Crescent Society, the Society for Defence of the Nation *(Milli Müdafaa Cemiyeti)*, the Navy League *(Donanma Cemiyeti)*, and the Women's Auxiliary of Red Crescent Society *(Hilal-i Ahmer Hanimlar Cemiyeti)* assumed important and active parts in the mobilisation of throughout country and hospitals and various other health services received direct support of the public. Since such movements helped the development of patriotism and nationalism in society, they contributed both to winning the war and to the establishment of a new nation-state. Especially the activities of the Red Crescent Society are noteworthy. Even if it was a newly-established society during the Balkan Wars, its contributions to the nationalism and mobilisation of the society are well known. The Red Crescent Society, which described itself as "an equivalent of the sanitary organisation of the army in the civil life," conducted important activities which fit into its aim of establishment, during both of the wars, as a conciliator between the public and the

state. Society, on one side, helped the soldiers who were fighting at the front with the hospitals, convalescence *(nekahathane)* and health units it established; on the other, it tried to struggle against the health issues and the epidemic diseases brought by the war and migrations and rendered protective health services to both the army and the public by producing vaccines and serums in the laboratories it founded. Furthermore, it engaged in some activities oriented to establishing awareness about the epidemic diseases within the army and the public and acted in cooperation with various governmental institutions in this regard, especially the military authorities. These efforts of the Red Crescent Society were also effective in reforming of the relationship between the state and public and the society acted as an interim negotiator between the two.

Another striking point of the experiences gained in the health area during both Balkan Wars and the First World War was that experts functioned as leading powers in running the system. The most distinctive examples of this can be seen in the arrangements brought by Süleyman Numan Bey who was appointed as Sanitary Chief of the War Office (*Harbiye Dairesi Sihhiye Reisi*) during the First World War and in the efforts of Tevfik Saglam who was appointed as Director of Sanitary Office of 3rd Army (*3. Ordu Sihhiye Reisi*) in 1915. It can be understood via closely following the works of these two men how the existing health problems can be solved through new arrangements enacted with an awareness and in a planned manner, especially how consequential results can be attained against epidemic diseases in spite of the fact that the conditions did not change. These examples put forth the fact that the administrators who would ensure the organisation of the health institutions and services should be experts in these areas and this fact was observed with diligence in the works to be initiated in the forthcoming years.

DH.ID 164 -2 / 1 (20)

Harbiye Nezareti Vekâlet-i Âliyesine

mühim ve müstaceldir

Binlerce mecrûhîn ve muhacirine melce' ve yüz binlerce nüfusa makarrer olan Istanbul ile umum Anadolu vilâyâtinin sihhat ve hayat-i umûmîyesini vikâyeten ordu-yu hümâyûndan kolerali hasta gönderilmemesi lüzumu Baskumandanlik Vekâlet-i Celilesine is'âr olundugu halde iki günden beri illet-i mezkure ile musâb bir çok efrâd gönderilerek bunlardan otuzu derhal vefat eyledigi ve Istanbul sekenesi miyâninda henüz musâb zuhur etmemesine tekayyüdât-i ciddiye ve mütemâdiye icrasi halinde büyük bir musibetin önü alinabilmesi eltâf-i subhâniyyeden me'mûl olmayip ancak kolera gibi ilel-i sariye musabininin bulunduklari yerlerde taht-i tedaviye alinmalari ser'an ve fennen vâcib ve bu gibilerin Istanbul'a gönderilmeleri hem musâbinin hem de umûmun muhafa-i sihhat ve hayati nokta-i nazarindan mürur oldugu halde su halin devami yalniz Istanbul için degil bilumum vilayât için bâdi-i felaket olacagi beyaniyla maraz-i mezkurun tahdîd-i dâire-i sirayet ve hasâri için ba'dezin Istanbul'a kolerali hasta gönderilmeyip ordu-yi hümâyûnca tedarik olunacak mahsus çadirlarda taht-i tecrîd ve tedaviye alinmasi lüzumu Sehremanet-i Âliyyesine kemâl-i ehemmiyetle bildirilmis ve is'âr-i vâki' cidden câlib-i nazar-i dikkat bulunmus oldugundan muktezâsinin müsâraaten icrâsi menût-i himem-i aliyye-i nezaret-penâhileridir ol-bâbda.

bâ isâret-i Âliye-i Müstesarî

MV 171-13 1330.Z.6

HÜLÂSA-I MEÂLÎ

Müsta'celdir

KARARI

1- Ba'dezin ordudan zuafây-i askeriye ve koleralilar Istanbul'a gönderilmeyerek Ayastefanos'dan harice sevk edilecektir

2- Bunlar Ayastefanos'dan Ayamama çiftligiyle sahasina nakl edilecek

3- Bunlar cihet-i askeriyece orduda bir iki gün tevkif olunarak süpheliler Maltepe hastahanesine gönderilecek digerleri gemiler ile Beykoz önüne sevk edilecek

4- Cihet-i askeriyece Ayamama çiftligine lüzumu kadar çadir ve levâzim-i sâire gönderilecek

5- Cihet-i askeriyece Ayamama karargâhina üç tabib iki eczâci alti timarci lüzumu kadar eczay-i tibbiye ve hasta bakici ve saire gönderilecek

6- El-yevm saray birûnunda bulunan iki bin kadar zuafây-i askeriye Cenab Sahabeddin Bey tarafindan isticar olunacak gemilerle Beykoz'a sevk olunacak ve gemilerin kirasi Sehremânetince mecrûhin tertibinden tesviye idilecek

7- Ayastefanos'da vagonlar içinde bulunan iki bin kadar zuafâ dahi kezalik Cenab Sahabeddîn Bey tarafindan isticar olunacak gemilerle Beykoz'a gönderilecek bu gemilerin kirasi dahi Sehremânetince mecruhin tertibinden te'diye idilecek

(2)

8- 7 numarali maddede muharrer zuafânin erzaki suyu cihet-i askeriyece bunlarla birlikte Beykoz'a gönderilecek

9- 8 numarali maddede muharrer zuafânin erzaki suyu kezalik cihet-i askeriyece bugün Ayastefanos'a gönderilecek

10- Simdilik Ayasofya Nuruosmaniye ve Laleli camilerine el-yevm Istanbul'da bulunan zuafâ konulmus oldugundan Harbiye Nezaretince her cami'e:

Evvelâ efradin iâseleri için birer hey'et-i idâre ta'yîn olunacak

Saniyen efradin muhafazalari için ikiser zabit ve onar neferden ibaret birer hey'et-i muhâfaza her câmi'in dahilinde bulundurulacak

Salisen her cami'ye ikiser tabib bir eczaci alti hastabakici ta'yîn olunacak

Rabi'an her camide birer küçük eczahane teskil olunarak ecza ve edevât-i lazime bulundurulacak

Hamisen vefat edenler cihet-i askeriyece serâit-i sihhiyeye tevfîkan bilâ teahhur defn ettirilecek

Sâdisen zuafâ içinde sihhatte bulunanlar cihet-i askeriyece bi't-tefrîk istikrâ olunacak gemilere gönderilecek

Sâbian asker konulan cevâmî-i serifenin dahilen bilcümle tathirati ve tenvirâti ve sair her türlü hidemâti cihet-i askeriyece ifâ olunacak

11- Birkaç günden beri ordudan vürûd edip Istanbul'a dagilmis olan asâkir cihet-i askeriyece âcilen ve tamamen behemehal toplattirilarak mezkûr camilere sevk edilecek

12- Camiler kâfi miktar asker ve jandarma marifetiyle ve gayet siki suretde cihet-i askeriyece muhâfaza edilerek bir nefer harice çikarilmasina kat'iyen meydan verilmeyecek

13- Beykoz Tahaffuzhânesinde bulunan askerlerin cihet-i askeriyece iâseleri ve muhafazalari te'mîn olunarak kesb-i sihhat edenler Istanbul'a gönderilmeyip memleketlerine sevk edilecek

14- Rumeli Demiryolu Kumpanyasi lüzumu kadar baraka yaptirmak için depolarinda ne kadar kereste ve levâzim-i sâire var ise vermeyi taahhüd ettiginden Tophane ve Tersane fabrikalarinda baraka insaatinda istihdâm olunacak ne kadar usta ve amele var ise hemen sevk olunarak ve asker içinde bu islerde kullanilabilecek ne kadar efrad var ise gönderilerek ve Sehremanetince de mümkün oldugu kadar amele tedârik edilerek Rumeli demiryolu kumpanyasinin verecegi levâzim ile ve Nâfia Nezâreti hey'et-i fenniye müdürü Frankya (?) Efendi ma'rifetiyle Ayamama Çiftligi civarindaki arazi-i vâsiada mümkün oldugu kadar çok baraka yapilacak ve bunlarin Rumeli Demiryolu Kumpanyasi'nca bulunup verilemeyecek levâzimi cihet-i askeriyece hariçden hemen mübâya olunarak bilâ teahhur gönderilecek

15- Hadimköyü'nden itibaren bu tarafta bulunan istasyonlara ve istasyonlardaki katarlara kolerali neferat girerek isgal etmekde bulundugu ve bunlarin oralardan ihraçlari mümkün olamayip vefat edenler de kaldirilmayarak haliyle birakilmakta oldugu cihetle katarlarin seyr-ü-seferlerine halel geldigi ve bu halin devami sirket memurlarinin sirayet-i emrazdan ictinâben çekmelerini intaç edecegi Nafia Nezaretinden ...

(3)

...bildirildiginden hastalik olan mahallerdeki istasyonlar koleralilardan tahliye olunarak hemen muhafaza-i askeriye altina alinacak ba'dezin buralara koleralilarin girmesine meydan verilmeyecek ve musâbîn vakt-ü-zamaniyla sevk edilip istasyonda beklettirilmeyecek ve bunun için dahi Hadimköyü'nde ve Ayastefanos'da mahsusan lüzûmu kadar baraka yapilacak

Bâlâda muharrer mevâdin seri'an ve harfiyen tatbikine i'tinâ edilmesi zimninda Harbiye ve Dahiliye Nezaretlerine tebligat icrasi tezekkür kilindi

DH.ID 164 -2 / 1 (67 /1)

Hülâsa: Davutpasa ve Ramiz kislalarinda da hüküm-fermâ olan kolera hakkinda ittihaz olunacak tedabire dair.

Dahiliye Nezaret-i Celilesine gayet mühimdir

Devletlü Efendim Hazretleri

Davudpasa ve Ramiz kislalarinda alti günden beri kolera hüküm-fermâ oldugu halde takayyüdât-i sihhiye kat'iyyen ifa olunmadigi gibi oralardaki askerlerin daimâ kislalardan çikarak Istanbul'a gelmekte olduklari mevsûkan istihbar kilinmistir. istihzâr-i esbâb-i tahaffuziyyesine geceli gündüzlü sarf-i mesaî olundugu bir sirada asâkir-i mezkurenin böyle her tarafa yayilip gezmeleri ikdâmât-i masrûfeyi semeresiz birakacagindan süphe olmamalidir dahil-i sehirde birkaç günden beri hastaligin tezâyüdine bu gibi kayitsizliklar sebep olmakdadir. Bir taraftan da Ayastefanos cihetlerinden koleraya musâb olan ve kolera a'râzi gösteren askerler ya araba ile yahud yaya olarak sehre girmekdedir bu ahvale karsi Istanbul sehri su hastaligin tahrîbât-i müdhisesinden nasil ve suretle tahlîs edecegini ta'yinde bi-hakkin mütehayyirim hastaligin tahdîd-i sirayet ve tevassu'i tedabir-i fenniyyenin ittihazina mani' olacak esbabin izalesine mütevakkif oldugu halde bir taraftan takayyüdât-i sihhiyede görülmekte olan mübalatsizlik diger tarafdan musâbînin adeta basi bos denilecek bir yolda sehre duhûlü her türlü tedâbir-i mesâîyi iskâl etmekde olduguna ve su ahvalin devami âtiyyen hiçbir suretle önüne geçilemeyecek derecede hastaligin tevessu'unu intâc idecegine binâen zât-i sâmi-i hazret-i sadaret-penâhiye arz-i ma'lûmât buyurularak gerek kislalardaki gerek asakir-i mezkurenin ve gerek Ayastefanos cihetlerinden karadan gelmekde olan askerlerin her halde sehirle ihtilâtda bulunmamalarinin te'mîni içün tedâbir-i âcile ittihâz buyurulmasini ehemmiyyet-i fevkalade ile istirham eder ve Emânetce Harbiye Nezareti Vekâlet-i Âliyyesine is'âr-i keyfiyyet olundugunu da arz-i müsâreât eylerim ol-bâbda emr-u ferman hazret-i men lehü'l-emrindir

Sehremini Cemil 12 Zilhicce 330 ve 8 Tesrinisani 328

DH.ID. 165 / 13

Dahiliye Nezareti Celilesine

Devletlü Efendim Hazretleri

Osmanli Hilal-i Ahmer Cemiyeti tarafindan teskil olunan Muhacirin Heyet-i Sihhiyesi'nce Yedikule'de barakalardaki muhacirin arasinda çiçek hastaligina müptela 38 kisi müsahede olundugundan hastaligin sirayet ve istidâdina meydan birakmamak üzere musabinin sür'at ile Demirkapi'daki vaki' Emraz Hastanesi'ne naklinde hususunun Sehremanetince tebligi 17 Kanunusani 1328 tarihli ve 1574 numarali tezkire-i acize ile istihdam olunmustur. Aradan on bes gün geçtigi halde Sehremaneti'nce henüz bir sey yapilmamistir. Çiçek ve kizamik gibi ilel-i sariye zavalli muhacirin arasinda müthis tahribat icrasina devam ediyor. Hilal-i Ahmer Cemiyeti'nce muhacirin merzâsi için yüz yataklik bir hastahane tesis olunmus ise de emraz-i sâriye musâbininin buraya konulmasi tecviz dahiline tâbidir. Diger taraftan bu emrâz-i sâriye için hastahane ittihazina pek elverisli olan Demirkapi'daki barakalarin yiktirilmakta bulundugu haber veriliyor. Bu babda bir an evvel tesebbüsât-i fiiliye ibrâziyla muhacirinin bu yüzden de dûçar olduklari felâkete netice verilmesi hususunun te'kîden Emaneret-i müsarünileyhâya tebligi menut-i .....nezâretpenahileridir olbabda emr-ü ferman hazret-i müsarünileyhindir.

8 Rebiülevvel 1331 / 2 Subat 1328 Hilal-i Ahmer Cemiyeti Reis Vekili

Namina

BEO 308180

Hülâsa: Kolera hakkinda tedâbir-i tahaffuziyenin icrâsina dâir.

Çerkesköy cihetlerinden gelen muhacirin meyaninda bir-iki süpheli vukuat zuhur ettigi ve Almanya Hastanesinde o cihetlerden gelen mecrûhin arasinda iki kolera musabi oldugu gibi sair hastahanelerde de dizanteri seklinde ba'zi vukuat bulundugu Sehremaneti'nden simdi alinan tezkirede bildirilmis ve Marmara iskelesinin bin bes yüz yolcu ve âsâkir ile Dersaadet limanina gelen Marmara vapurunda dahi bir kisinin kolera alâimi izhar ettigi Karantina Idaresi'nden ihbar olunmustur. Is'ârât ve ihbârat-i vâkiaya göre ordu-yu hümâyunun kolera ârâzinin taht-i tesirinde bulundugu tebeyyün eylediginden bu bâbda sirâyet ve intisâr-i maraza meydan vermemek üzere ordu-yi hümayûnca muhtelit komisyonlar teskiliyle tedâbir-i tahaffuziye ve fenniyenin ittihâz ve icrâsinda zerre kadar terâh-i ve tekâsül gösterilmemis ve her an teftisât ve takayyüdâtdâ bulunularak süpheli ârâz irâe edenlerin hemen tecrîd ile her gûna vesâit-i tathiriye ve tahaffuziyenin temâmi-i icrâsi için icâb edenlere evâmir-i kat'iyye ve müessire i'fasi Baskumandan Vekâletine is'âr kilinmistir. Binaenaleyh hastaligin Dersaadet'e sirayet etmis olmasina nazaran buraca dahi takayyüdâtdâ ve tahaffuzât-i serî'a ve müessire ittihazi taht-i vücubda bulunduruldugundan bu bâbda Sehremini Cemil pasa Hazretlerinin taht-i riyasetinde olmak üzere Sihhiye Nezâretiyle Meclis-i Umûr-i Tibbiye-i Mülkiyeden ve etibbâ-yi askeriyeden ve Sehremâneti memurininden ikiser zevattan mürekkeb fevkâlâde bir komisyon teskiliyle serî'an marazin izâle ve indifa'i ve men-i tevsii ve sirâyeti esbâbinin istikmâli hakkinda müzakerât ve mukarrerât-i lâzime ittihazi münasib-i mütalaa olunmus olmagla bervech-i muharrer icrâ-yi icâbi hususunda ..... mesai-i sâmiyeleri mâ'ruzdur ol-bâbda emr-ü ferman hazret-i veli-ül emrindir.

23 Zilkâde 1330 ve 24 Tesrinievvel 1328 Harbiye Nâziri Vekili (6 Kasim 1912)

DH.ID 164-2 / 1 (23)

Hülasa: Bazi mukarrerat-i sihhiyye hakkinda

Dahiliye Nezaret-i Celilesine

Devletlü Efendim Hazretleri

28 Tesrinievvel sene 328 tarihinden itibaren Dersaadetten hareket edecek sefâin hakkinda âtiü'z-zikr tedâbirin ittihazi Meclis-i Sihhiyye kararindandir. Evvelen bulasik yani derununda yedi günden beri kolera vukuati zuhur etmis olan vapurlarin muayene-i tibbiyye ile bes gün karantina ve tebhîrât-i fenniyyeye tabi' tutulmasi ve derunlarinda bulunan içmeye mahsus suyun fennen icab ettigi takdirde dezenfekte edildikden sonra bi'l-ihrac tecridi ve isbu tedabirin memalik-i Osmaniye tahaffuzhanelerinden birinde icrasi saniyen evvelce derunlarinda kolera vukuati zuhur edip de yedi günden beri vukuat olmayan vapurlarla diger bilumum vapurlarin muayene-i tibbiyye ile tebhîrât-i fenniyyeye tabi' tutulmasi ve vapurda bulunan içmeye mahsus sularin fennen icab etdigi takdirde dezenfekte edildikden sonra bi'l-ihrac tecridi ve isbu tedabirin memalik-i Osmaniye tahaffuzhanelerinden veya mevâkî-i sihhiyesinden birinde icrasi. ve semt-i maksudlari Marmara sevâhili limanlari olup da bu kisma dahil bulunan vapurlarin tabi' oldugu tedabir-i sihhiyyeyi ifa için Manastiragzi tahaffuzhanesine sevk edilmeleri ve ancak derunlarinda etüv bulunan bu kisim vapurlarin tahaffuzhane etibbasinin taht-i nezaretinde olmak üzere kendi vesâit-i mevcudeleriyle tebhîrâtin icrasi ve yelken sefâini hakkinda dahi vapurlar hakkinda bâlâda zikr olunan ayni tedâbirin icrasiyla beraber is'âr-i ahîre degin Dersaadetten Marmara sevâhili limanlarina gidecek olanlarin hîn-i hareketlerinde Galata, Yenikapi, Haydarpasa, veya Salacak mevâkiinden birinde muâyene-i tibbiyye icrasi muvâsalet limaninda bir sihhiye veya belediye tabibi bulundugu takdirde muâyene-i tibbiye-i mezkurenin tekrar ifasi ve yine 28 tesrinievvel sene 328 tarihinden itibaren Iskenderun mevâridâti hakkinda tedâbirin ittihazi Meclis-i Sihhiyye kararindandir.Evvela bulasik yani derununda yedi günden beri kolera vukuati zuhur itmis olan vapurlarin muayene-i tibbiye ile bes gün karantina ve tebhîrât-i fenniyeye tabi' tutulmasi ve derunlarinda bulunan içmeye mahsus su fennen icab ettigi takdirde dezenfekte edildikden sonra bi'l-ihrac tecrîdi ve isbu tedabirin Memalik-i Osmaniye tahaffuzhanelerinden birinde icrasi saniyen evvelce derunlarinda kolera vukuati zuhur edip de yedi günden beri vukuat olmayan vapurlarla diger bilumum vapurlarin muayene-i tibbiye ile tebhîrât-i fenniyeye tabi' tutulmasi ve vapurda bulunan içmeye mahsus sularin fennen icab ettigi takdirde dezenfekte edildikden sonra bil-ihrac tecridi ve isbu tedabirin memalik-i Osmaniyye tahaffuzhanelerinden veya mevâki-i sihhiyesinden birinde icrasi . ve Lazkiye mevâridâtina mevzû' tedâbirin ifasi ma'ruzdur emr-ü ferman hazret-i men lehü'l-emrindir.

Sihhiye Naziri Namina 28 Tesrinievvel 1328

BEO 308444 Gayet mühim ve müsta'celdir

Dersaadet 1 Tesrinisâni 1328

Ayastefanos'ta menzil tabâbetinden Sahrâ Sihhiye Müfettisligine kesîde olunan 1 Tesrinisani 1328 tarihli telgrafnâmede vagonlar içinde üç bini mütecâviz kolerali mevcut oldugu halde bunlari iskân için orada hastane bulunmadigi ve Hadimköyü'nden koleralilari hâmil bir katar daha gelecegi beyâniyla bunlari tahaffuzhaneye sevk için büyük bir vapur gönderilmesi ve aksi takdirde vagonlarin dogrudan dogruya Istanbula sevk edilecegi bildiriliyor. Sarayburnu'nda iki bin bes yüz kolerali mevcuttur. Tuzla ve Manastiragzi ve Kavak ve Serviburnu Tahaffuzhaneleri kolerali ile melâmildir. Binaenaleyh Dersaadetçe koleralilari ikâme ve iskân için cihet-i askeriyece mahal tedâriki müsta'cel oldugu gibi kirlarda ikâmeleri için çadir dahi yoktur. Mezkûr telgrafnâmede bildirilen koleralilar dahi Dersaadete geldigi halde bunlarin sokaklarda yagmur ve kar altinda ve çamur üstünde kalacagi ve cenazeleri kaldiracak adam bulunamayacagi ve bu suretle ahval-i sihhiye-i umûmiyenin muhtel olacagi âsikâr oldugundan Dâhiliye Nâziri ile Sehremininden ve daha icâb edenlerden mürekkeb bir komisyon teskiliyle ahvâlin derkâr olan vehâmetinin izâlesi ve tecrîdi kolay oldugundan dolayi adalardan birinin tahliyesiyle mûsâbinin orada veyâhud tensîb olunacak diger mahallerde tecrîd ve iskânlari esbâbinin âcilen istikmâli kemâl-i ehemmiyetle arz ve inbâ olunur olbâbda emr-ü ferman hazret-i veli'ül emrindir.

Harbiye Nâziri Vekili

DH.ID 164 -2 / 1 (98 /1)

Harbiyye Nezareti Vekâlet-i Âlisine

Ordû-yi Osmani'de zuhur eden kolera illet-i müdhisesinin tevessu' ve intisara olan kabiliyet ve isti'dâdi cihetiyle tedabir-i tehaffuziye-i acile bi'l-ittihaz mahallinde itfâsi çaresine bakilarak musâbînin katiyen Istanbula sevk edilmemesi nezaret-i celile ile Bas- kumandanlik Vekaletine is'âr kilindigi halde o aralik muhaberenin siddetle devam etmekte olmasi hasebiyle tedkike vakit bulunamamasindan yahud tefrîk ve tecrîde zaman ve mekân-i müsâid olmamasindan dolayi iki üç gün zarfinda Istanbul'a zuafâ ve ma'lûlîn nami altinda dizanterili ve kolerali olarak on bini mütecâviz efrad gönderilmis ve bilcümle hastahane ve kislalarin mecrûhîn ile dolu olmasi sebebiyle bunlarin mahall-i mahsûsaya iskân ve ikâmelerine cihet-i askeriyece imkân bulunamamasina binâen efrâd-i merkûme saray birûnu ve Demirkapi sevâhilinde ve açikta kalmis olup esâsen zaif ve ma'lûl ve kolera ile musâb ve mülevves olan bu efrâd meyâninda o sirada icrây-i hüküm eden sedâid-i havâiyyenin inzimâm-i te'sîrâtiyla yevmî yüzlerce vefiyyât zuhur etmekte ve adeta nakil ve definlerine vakit bulunamamakda iken külli yevm vürûd eden ve yalniz bir trende yüz otuzu mütecâviz emvât zuhur eyleyen kavâfil-i ma'lûlîn ve musâbinin

DH.ID 164 -2 / 1 (98 /2)

mevt-i muhakkaktan kurtarilmalari ve bir milyon iki yüz bini mütecâviz nüfusa malik olan sehrimizin maraz-i mezbûrun savlet-i istilâkârânesinden muhafazasi zimninda camilere yerlestirilmeleri hakkinda Meclis-i Vükelâca ittihaz ve teblig olunan karar mucibince derhal cümlesi toplanilarak Ayasofya Camiine gönderilmis ve emr-i iâseleri Hilâl-i Ahmer ile cihet-i askeriye ve bir tarafdan da Emânetçe deruhde ve ifa edilmekte bulunmus ise de bunlarin toplu ve müzdahim olarak bir mevkî'de bulundurulmalari koleranin siddet-i vusûletini mucib olacagi cihetle agir hastalar Ayasofya cami'-i serifinde terk edilerek zaif olanlar ve kolera ve dizanteri a'râzi arz etmeyenler cevâmi'-i sâireye tefrîk ve i'zâm ve bulunduklari mahallerde birkaç gün karantina geçirerek sihhatleri yolunda oldugu anlasilan efrâd tathîrât-i fenniyye icrâ edilmek üzere Kavak Tahaffuzhanesine ve oradan da ikmâl-i tathîrât ve tebhîrâtdan sonra Selimiye Kışlasina sevk edilmekte olup mücerred su usul-i tecrid ve tefrîk sâyesinde vefiyyât-i yevmiyesi yüz elliyi tecâvüz etmesi suretiyle koleranin en ziyâde sâha-i tahrîbâti oldugu anlasilan Ayasofya câmi'-i serifinde iki bin mevcut arasinda el-yevm vukû'ât on bese tenezzül etmis fakat tahaffuzhaneye sevkleri icab eden bin sekiz yüz efrad iki günden beri Sultanahmet camiinden birakilmasindan dolayi Ayasofya'daki zuafâdan sihhatleri yoluna girmemis tefrîk ile mahall-i mezkûre gönderilmekde bulunmus oldugundan bahs ile gerek orduyu gerek bilcümle bilâd-i Osmaniyeyi taht-i tehdid-i istilâkârânesinde bulunduran maraz-i mezbûrun bir an evvel def' ve izâlesi te'mîn edilmek üzere Sultanahmet camiindeki efradin hemen Kavaga sevki ve ba'dezin fevâid ve muhassenâti meshûd ve sâbit olan usûl-i mezkûrenin idâme ve muhafazasi lüzumu Sehremanetinden alinan tezkirede izbâr olunmus ve suret-i is'âr hâiz-i ehemmiyet görülmüs olmagla iktizâsinin âcilen ifasina himem.

MV 175 / 23

Dahiliye Nezaret-i Celilesi'ne

Meclis-i Vükelâ'da mütalaa olunan 13 Mart 1329 tarihli tezkire-i âliyelerinde dermeyan olundugu vechile ile mevsim-i sayfin hululüyle kolera illetinin her tarafta zuhuru ihtimaline binaen tedabir-i fenniye ve mukteziye ittihaz edilmek ve seyyar sihhiye heyetleri teskili lâzim gelen mahallere îzam olunmak ve bu isle istigal etmek üzere bir fevkalâde kolera komisyonu ile muhacirin iskani hususunda arazinin serait-i sihhiye nazarinda itibara alinmak suretiyle intihabi ve vesait-i iskâniyenin ihzari ve bunlarin tahsis edilen mahallere îzamlarinda asilanmalari gibi umur ile gece ve gündüz istigal etmek üzere diger bir komisyon teskili zimninda elli bin liralik bir tahsisat talep olunmus ise de pulverizatör ve edviye celbi ve Tuzla Tahaffuzhanesi'nde ikmal-i noksani ve istihdami icab eden memurin-i sihhiye için simdilik bes bin liranin tesviyesi münasip göründügünün bu babda icab eden madde-i kanuniye layihasinin tanzimi hususunun Maliye Nezareti Celilesi'ne tebligi ve nezaret-i celilelerine ma'lumat izasi bittezekkür iktizasi ifa kilinmistir efendim.

DH.ID 164 -2 / 1 (47)

Umur-i Tibbiye-i Mülkiye ve Sihhiye-i Umumiye Nezareti
Tahrirat Kalemi

Dahiliye Nezaret-i Celilesine

Devletlü Efendim Hazretleri

Dersaadet'de koleranin hüküm-fermâ oldugu ve musâbîn adedinin gün be gün tezâyüd etmekde oldugu alinan cedvellerden müsteban olmaktadir. Kolera musâbininin bu suretle tedrici olarak artmakta olmasina nazaran maraz-i mezkûrun az bir zaman zarfinda pek müdhis bir suretde her bir mahalleye intisâr ile maazallah binlerce musâbinin vukû'una sebebiyyet verecektir. Buna binâen hastaligin hâl-i hâzirda bulundugu yerlerde itfâ itmek mümkün mertebe sâha-i intisâr ve sirayetini tahdîd eylemek için koleraya karsi ittihazi lazim gelen ber vech-i âtî bilcümle tedâbirin her türlü fedakârligi göze alarak noktasi noktasina tatbik edilmesi esed-i lüzum tahtindadir

1- Hastaligin muhacirler ve efrâd-i askeriye vasitasiyla Dersaadet'e getirildigi süpheden vâreste oldugundan evvelce de arz edildigi vechle ondan ancak kuyûd ve serâit-i sihhiyyeye tabi' tutulmak suretiyle (bunlarin Istanbul haricinde münasib bir mahalde siki kordon ve ciddi bir dezenfeksiyona tabi' tutulduktan sonra) Dersaadet'e gelmelerine müsaade edilmesi.

2- Simdiye kadar gelen efrâd-i askeriye meyaninda koleraya tutulanlar muhtelif hastahanelere ve hususî hânelere yatirildiklari cihetle onlarla hariçten kimsenin iltilât etmemesi lâzim geleceginin ve binâenaleyh kolerali hastalarin bulunduklari hastahane ve hanelerde ittihaz olunan bilcümle kavânin-i sihhiyeye askerlerin dahi tâbi' tutulmasi lazimdir.

3- Hâl-i hazirda Dersaadet'de bulunan muhacirler ile ahali meyaninda ihtilâtin suret-i kat'iyyede men' edilmesi için tedâbir-i ciddiyye ve sedideye tevessül edilmek sarttir.

4- Nefs-i Dersaadet ahalisi arasinda henüz ehemmiyetli bir nisbette kolera müntesir olmadigindan ahali-i mezkûre meyaninda kolerali vak'alara tesâdüf edilir edilmez maraz-i mezkûrun men'-i tevessu ve intisârina yegâne âmil.

Umur-i Tibbiye-i Mülkiye ve Sihhiye-i Umumiye Nezareti
Tahrirat Kalemi

olan temâsin men'i tecrîd ve tefrîdin temini için bulunduklari yerlerde kordon vaz'i suretiyle tatbik edilmesi zarûrîdir. Kordonlarin bu suretle teaddüd ve tekessürü halinde bu kâideye riâyet edilmesi müskül olacagi tabii bulunmagla simdiden her bir daire dahilinde münasib mahaller tefrîk ve muvâfik haneler isticâr edilerek kâfi manada tecridhaneler te'mîni elzemdir. Gerek kordonlardan ve gerekse tecridhanelerden intizâr olunan fâidenin te'mîn ve istihsâli için zuhur eden vak'alarin vakt ü zamaniyla bilinmesi lazim oldugu cihetle münasib bir beyanname ile Istanbul ahalisi ikaz edilerek kolera zuhur eden haneleri mümkün mertebe sür'atle mahallî belediyelerine ihbar edilmesi lüzumu ifhâm edilmeli ve bu gibi hastalari saklayacak olanlari sedîden dûçâr-i mücâzât olacaklarinin isbu beyannameye ilâve edilmesi lâ büddür.

5-Kolera zuhur edip de kordon tahtinda bulunan haneler ile tecridhanelerde ve kolera hastahanelerinde bulunacak hastagânin muntazaman tedavilerine dikkat edilmekle beraber isbu hanelerde ve tecridhanelerde hastalarla beraber temasta bulunacaklarin dahi hâmil-i mikrob olub olmadiklarinin tedkikiyle ona göre serbest birakilip birakilmamalari lazim gelir.

6- Kolera musâbininin bulundugu mahallerin dezenfeksiyonuna fevkalade i'tinâ idilmesi ve onlara ait bilcümle esyanin behemehal etüvden geçirilmesi elzemdir.

7- Sular hakkinda dâimi tedkikat icrasiyla mülevves olanlarinin gayr-i kâbil-i isti'mâl bir hale ifrâgi vâcibdir.

8- Koleranin fakr u zaruret içerisinde yasayanlar ile bekâr olub han ve kahve köselerinde yatanlar arasinda daha ziyade intisâr etdigi sabit oldugundan hammal, kayikçi ve kunduraci gibi esnafin daha siki bir nezaret-i tibbiyye tahtinda bulundurularak her türlü izdihâmin men' edilmesi lazimdir.

9- Mide ve em'âyi bozan bilcümle çürümüs meyve ve sebzevâtin men'-i füruhtu unutulmamalidir.

10- Koleraya karsi ittihazi lâzim gelen tedâbirin halkça bilinmesi faideli oldugundan on bes maddeden ibaret olan beyannamenin evrak-i havadisle ilani muktezîdir.

DH.ID 164 -2 / 1 (49)

11- me'murin-i zabitanin bilcümle me'murin-i sihhiyyeye muâvenet-i lazimede bulunmalari için Istanbul Polis Müdüriyet-i Âliyesine tebligât icrâ edilmesi lâzimdir.

12- Kolera zuhur eden hanelerin halkça bilinmek ve ona göre tevekkî' edilmek üzere sari birer yaftanin ta'lîkî lazimedendir.

ber-vech-i bâlâ mukarrerâtin Sehremaneti'ne ve Harbiye Nezaret-i Celilesine emr ve tebligi Meclis ifadesiyle arz ve istirham olunur ol-bâbda emr ü ferman hazret-i men lehü'l-emrindir

4 Zilhicce 330 ve 1 Tesrinisani 328

Meclis-i Umur-i Tibbiyye-i Mülkiye ve Sihhiye-i Umumiye
Reisi Vekili

Sâit

DH.ID 164 -2 / 1 (145)

Royal Insurance Company Limited

Dâhiliye Nâziri Atufetlü Beyefendi Hazretleri

Efendimiz

Memleketimizde Sehremâneti ve devâir-i belediye mevcud oldugunu bildigimizden onlara mürâcaatimiz semeresiz kaldigindan bir kere de gerek zât-i âlînize ve gerek Sadr-i a'zam Pasaya mürâcaat edecegiz. Sizden dahi bir netice hâsil olmazsa lâyikiyla anlasilacak ki su kolera zamaninda bile ahâlinin hayat ve sihhatine zerre kadar dikkat edilmezmis. Kadi- köyünde Moda caddesinde Murâdiye sokagi agzinda doktor Asiya'nin mutasarrif olup Cemal Bey tarafindan müste'ciren ikâmet idilen hânenin üst katindaki daraçadan (taraça) her gün sabun çamasir ve türlü türlü kokulu sular sokaga dökülmekte ve o siradaki hânelerin önleri kâffesi âdeta bir göl ve lâgim halini almis ve kokulardan durmak mümkün olmadigi âsikârdir. Bu münâsebetsizliklerin önü almak bizim vazifemiz olmayip belediyenizin vazîfesidir. Bu vazîfeyi kendilerine defaatle ihtâr ettigimiz halde simdiye kadar bir çaresini bulmadiklarini me'mûrînin ahlâk ve kudretlerini gösteriyor.

3 Kânûnuevvel 326

Royal

DH.ID 164 -2 / 1 (11)

Sehremânet-i Aliyyesine

Araba vapurlariyla karsi tarafa nakledilmekte olan muhacirin ile araba ve hayvanlarinin Sirkeci iskelesi civarindaki caddelerde daima müzdehîm bir halde bulunmasindan dolayi mülevves olan caddelerin tathîrâtina bakilmakta oldugu ve o taraflarda Emânet me'murlarindan kimsenin bulunmadigi haber verilmis ve izdihâm sebebiyle su halde ahval-i sihhiyyesi kesb-i ehemmiyet eden sehrin en kalabalik caddelerinin bu halde birakilmasindaki mahaziri derkâr bulunmus oldugundan mezkur caddelerin tanzifât ve tathîrâtina i'tinâ ile beraber sevkiyâti tesrî' ve tanzîm etmek için Sirkeci ve civarinda lüzûmu kadar belediye me'murlarinin bulundurulmasi mütevakkif-i himem-i vâlâlaridir ol-bâbda.

tebyiz

DH.ID 164 -2 / 1 (13)

Umur-i Tibbiyye-i Mülkiye ve Sihhiye-i Umumiye Nezareti
Tahrirat Kalemi

gayet mühim ve müsta'celdir

Dahiliye Nezaret-i Celilesine

Devletlü Efendim Hazretleri

Meclis-i Umur-i Tibbiyye-i Mülkiye ve Sihhiye-i Umumiyye'nin öteden beri tahmin ederek tedâbir-i tahaffuziye-i kat'iye icrasini temenni etmis olmasina ragmen maa't-teessüf kolera hastaligi ordûy-i Osmani'ye sirâyet etmis ve Dersaâdet'e gelen gerek mecrûhîn ve gerek muhâcirîn vasitasiyla maraz-i mezkur Istanbul'a dahi sirayet ve intikal eylemesiyle sihhat-i umumiyye-i memleket gayet kesb-i ehemmiyet ve nezâket etmistir. Koleraya karsi ittihâzi lâzim gelen tedâbiri temin için vasâit-i mukteziye kismen ma'dûm ve kismen pek noksan olduktan baska hâl-i harb sebebiyle etibbânin kism-i küllîsi ordulara iltihâk etmis olmasindan bu bâbdaki müskülât bir kat daha tezâif eylemistir. Ahvâl-i âdiyede dahi mevcudu meclis-i mezbûrun uhdesine mevdû' vezâifi ifaya kifayet etmeyen me'mûrîn bâ husus mütehassisdan ahîran mevki-i harbe sevk edilmis olanlardan meclisimiz a'zâsindan hifzissihha muallimi Aristidi ve bakteriyolojiye memur Kemal Muhtar ve Ziya Beylerin ilcây-i maslahat ve zarurete binâen telgrafla ve kabil oldugu mertebe bir sür'atle Dersaadet'e celb edilmeleri ve ahvâl-i ma'rûzaya karsi meclisimizce teemmül olunan ber-vech-i zîr tedâbir-i âcile ve mümkinenin mevki-i tatbîk ve icrâya vaz'i (1) her seyden evvel kolera ile bulasik olan mahallerden suret-i kat'iyyede asker alinmamasi (2) ale'l-umûm sevkiyât-i askeriyede marazin tevsî'-i sirâyetine mâni' olacak tedâbiri te'mîn için etibbây-i askeriyeden mürekkeb bir hey'et-i sihhiye vasitasiyla sevkiyât-i askeriyyenin nezâret-i tibbiyye ve tedâbir-i sihhiyye tahtinda icrâsi (3) karargâhlarda kolera vukuati veren kit'ât-i askeriyenin hemen tecrîd edilerek mangalara ayrilmasi (4) Dersaâdet'de kolera musâbinine mahsûs olmak üzere simdiden oldukça vâsi' kolera hastahaneleri te'sîs idilmesi (5) Dersaâdet'e gelen mecrûhîn ve muhâcirîn miyâninda a'râz-i meskûke ibrâz edenleri müsâhede veya hastahanelere sevk etmek için Sirkeci'de etibbây-i askeriye ve Sehremaneti tarafindan tayin edilecek etibbây-i belediyeden mürekkeb bir hey'et-i teftisiyye ve sevkiye teskil olunmasi (6) Terkos Gölü civarinda askerlerin tahsîd itdirildigi istihbâr kilindi. Mezkur göl suyunun kolera mikrobuyla televvüsü halinde bütün Istanbul ahalisinin koleranin taht-i tehdid ve tesirinde kalmasi bir emr-i muhakkak ve bu sebeble bir felaket-i azîmi mucib olacagindan mezkûr gölün telvîsine meydan kalmamak üzere muhafazasinin askerî kordonu ve etibbây-i askeriye ile suret-i kat'iyede taht-i temine alinmasi (7) tedâbir-i tahaffuziye masarifi olarak evvelce

tahsis edilmis bulunan üç milyon kurus kolera tahsisatindan el-yevm bir milyon küsur kurus kaldigi anlasilmasina ve vilâyattan ba'zilarinda dahi kolera el-yevm hüküm-fermâ olmasina ve derûn-i hâle nazaran Dersaâdette dahi tevessu' etmesi melhûz bulunmasina binâen bu mikdâr paranin gerek Dersaadet ve gerek tasra için kifayet etmeyecegi derkâr bulundugundan bilahare tahsisat taleb ve istihsâli için vakit ziyâ'ina ve bu sebeble tedâbir-i sihhiyenin emr-i tatbîk ve ittihâzinda teahhur vukû'uyla illetin tevsî'ine meydan kalmamak üzere simdiden üç milyon

kurus daha kolera tahsisatinin sarfina me'zûniyet istihsâl buyurulmasi. Bâlâda arz olunan husûsâtin Harbiyye Nezâret-i Celilesine ve Sehremâneti Âliyyesine ait olan cihetlerinin Nezâret-i Emânet-i müsârün-ileyhâya tebligi ve kolera tahsisatinin da bir an evvel istihsâli esbâbinin istikmâl buyurulmasi lüzûmunun kemâl-i ehemmiyetle huzûr-i sâmilerine arz ve izbâri meclisden ifade kilinmis olmagla bervechi ma'rûz ifây-i muktezâsi hususuna müsaade buyurulmasi ma'rûzdur ol-bâbda emr ü ferman hazret-i men lehül-emrindir

29 Zilkade 330 ve 27 Tesrinievvel 328

Meclis-i Tibbiye-i Mülkiye ve Sihhiye-i Umumiye Reisi Vekili
Saîd

M.V 170/104/1 1330.Za.29

HÜLÂSA-I MEÂLI

Dahiliye Nezâretinin 27 Tesrinievvel sene 328 tarihli ve 2507 numarali tezkiresi okundu.

KARARI:

Mezkûr tezkirede dermeyan kilindigi üzere iki günden beri gerek bahren Tekfurdagi'ndan gerek berren simendifer ile Istanbul'a gelmekte olan mecrûhin meyaninda koleraya musâb olanlar bulunmakta olup gerçi Sehremanetince Maltepe Hastahanesine sevk olunarak tecrid edilmekte iseler de koleraya musâb olan mecrûhinin sevkine devam olundugu halde ma'zallah memleketin pek vahim bir tehlikeye ma'rûz kalacagi bî istibâh oldugundan bu gibilerin Dersaadet'e sevk edilmeyerek bulunduklari mahallerde çadir altinda tedavileri ve mecrûhîn-i askeriye meyaninda koleraya musâb olanlarin kesretine nazaran illet-i mezkûrenin lâ akall on bes günden beri orduda hükümfermâ oldugu halde henüz farkina varilmadigi yahud ketm edildigi ve her iki ihtimale göre de Istanbul'un maraz-i mezkûr ile bulastirilarak ahval-i sihhiye-i umumiyesinin tehlikeye maruz birakildigi anlasilmakta olmasina binâen keyfiyetin müsareaten tahsisi ile mücrimiyeti tebeyyün edecekler haklarinda muâmele-i sedide-i kanuniyenin bilâ te'hîr ifasi ve vukûatin suret-i münasebede ilâmi zimninda Harbiye ve Dahiliye Nezaretlerine tebligât ifasi tezekkür kilindi.

BEO 308444 Gâyet müsta'celdir

Huzur-i Âli-i Cenâb-i Sadaretpenâhilerine

Zûafa ve mâlûlîn-i askeriye ile bir çok kolerali efrâdin Istanbula gönderilmekte olmasindan mütevellid muhazir-i sihhiyeden ve dün aksam vürûd eden iki bin zûafâ meyaninda iki yüz de kolera müsâbini bulundugu anlasilarak binaenaleyh Istanbul'un ahval-i umumiye-i sihhiyesinden dolayi Emânetçe bir mesûliyet kabul edilemeyeceginden bahs ile gerek zûefanin gerek kolerali efrâdin Istanbul'a gönderilmemesi ve ugratilmamasi ne gibi tedbire vâsita ise bu günkü Meclis-i Vükelâ'da bir karar-i kat'iyye rabti vücûbuna dâir Sehremânet-i Âliyesinden simdi alinan tezkire leffen takdim kilindi. Icra-i icâbi menût-i re'y-i 'âli-i fehimaneleridir olbâbda emr-ü ferman hazret-i veli'ül emrindir.

4 Zilhicce 1330 ve 1 Tesrinisâni 1328 Dâhiliye Nâziri

DH. ID. 164-1 / 2 (22)

Gayet Müstaceldir

Dahiliye Nezareti Celilesine

Devletlü Efendim Hazretleri

29 Kanunusani 1328 tarihli ve 874 numarali tezkire-i acizaneye zeyldir. Kartal kazasinda bulasik addiyle gerek simendifer ve gerek vapurlarin Kartal, Pendik ve Tuzla'ya ugratmadan emraz-i sihhiye komisyonu mukarreratindan olup bu babdaki raporlarin derdest ile bulundugundan bahisle simendifer ve vapur kumpanyalari nezdinde tesebbüsat-i serî'a ve neticesinde acilen inbâsi ve ora mevaridatina karsi bittabii kordon va'zi icab ettigi kaymakamliktan simdi alinan telgrafnamede izbar kilinmasina nazaran iktizasinin tesri'i ifa ve neticesinin makam-i vilayete de emir ve inbasina müsâ'ade buyurulmasi ehemmiyetle ma'ruzdur. Ol babda emr-ü ferman hazret-i men lehü'l- emrindir.

Istanbul Vali Vekili Namina 5 Rebiülevvel 1331 / 30 Kanunusani 1328

Tathirat Müdürü (12 Subat 1913)

DH. ID. 164-1 / 2 (121)

Hülasa: Kartal'da kolera hastaliginin kâmilen mündef'i oldugundan tabib Ismail Saib Efendi'nin geriye aldirilmasina dair.

Dahiliye Nezaret-i Celilesine

Devletlü Efendim Hazretleri

10-12 günden beri Kartal ve mülhakatinda lehülhamd koleradan hiçbir musab ve vukuat olmamasina nazaran illet-i mezkurenin kâmilen mündef'i oldugu anlasildigi 5 Mart 1329 tarihinde kaymakamliktan bildirilmis ve tecrithanede hiçbir hasta kalmadigi gibi nekahathanede bulunan ve mevad-i sakilelerinde vibriyon bulunmadigi Bakteriyolojihanece tahkik edilen on nefer askerin hâl-i hazirlari itibariyla birer müddet daha tedavi edilmek üzere Haydarpasa Hastanesi'ne derdest i'zâm bulunduklari cihetle etibba-yi askeriye ile tesrik-i mesai etmek üzere evvelce Cemiyet-i Tibbiye-i Mülkiye'ce Kartal'a i'zâm kilinan doktor Ismail Saib Efendinin memuriyetine hitam verilerek geriye aldirilmasi lüzumu kaymakamligin cümle-i is'aratindan bulunmus oldugu Üsküdar Mutassarrifligindan is'ar edilmekle icabinin ifa ve emir ve inbasina müsaade buyurulmasi maruzdur.

Istanbul Vali Vekili Namina 5 Rebiülahir 1331 / 11 Mart 1329

Tathirat Müdürü

ATASE Kls no. 2975 Dno.29 F. (1-3)

Harbiye Nezareti Sahra Sihhiye Müfettis-i Umumiligi'ne,

Bes yüz yatak üzerine tertip edilen Erzurum Hilal-i Ahmer hâl-i faaliyette alti tabibi ile iki yüz hafif mecruha bakmakta idi. Kendilerine bes yüz yataklarini açarak faaliyete geçmelerini teblig ettim. Yapamayacaklarini bildirdiler. Menzilde iki yüz elli hastaya bir tabib isabet ediyor, Etibba ihtiyac-i sedîdi karsisinda hastanelerini bes yüze iblâg ettikleri gün tabipleri iade edilmek üzere dördünü muvakkaten hastaneler hizmetine aldim. Kendileri iki tabib ile bu vazifeyi ifa ediyorlarsa da mükellef bütün tabiplerini alarak vazifelerini bir tibbiye talebesine gördürecegimi arz eyledim.

3. Ordu Sertabibi

Tevfik Salim

ATASE Kls no. 2975 Dno.29 F. (1-4)

3. Ordu Sertabibi'ne,

6 Mart 1331. Bu doktorlari Hilal-i Ahmer'e biz verdik, simdi alirsak garip olur. Yalniz bes yüz yatak yapmalarini israr ediniz. Darülmuallimin ve Sultani Mekteplerini de veriniz, çalistiriniz. Seyfettin Efendi'yi Erzincan'da birakmissaniz bu adam is görmeyecektir. Yani iadesi daha muvaffiktir.

Sahra Sihhiye Müfettisi 8 Mart 1331

Süleyman Numan

ATASE Kls no. 2422 Dno. 46 F. (1/7 20-3)

Hülâsa: Iki adet seyyar etüvün müsait-i sevk ile irsâline dair.

Baskumandanlik Vekâlet-i Celilesi'ne

Sirbistan'dan gelmekte olan muhacirin Edirne vilayetine lekeli humma nesretmektedir. Bunlarin Dimetoka ve Mustafapasa kapilarinda vücut ve asilari tathir olunmadigi , marazin ahali ve askere sirayetine lâyikiyla mümânât edilemeyecektir. 2. Kolordu burada iken onun seyyar etüvlerinden bazen istifade ediliyordu. Buna imkân kalmadi. Hilal-i Ahmer merkez-i umumiyesinden talep ettik, yok cevabi geldi. Para ile tedarikine tesebbüs etmek mümkün olmadi. Istirham ederim vilâyet emrine bu iki kapi için iki seyyar etüv makinesinin sür'atle sevk ve irsaline lâzim gelenlere emir buyurulmasina müsaade-i celileleri sâyân buyurulsun efendim.

Edirne Valisi 16 Haziran 1331

Adil

ATASE Kls no. 2213 Dno.49 (F. 7)

Hülâsa: Etibba-yi sihhiyeye kolera asisi vesikasi ibraz etmeyen zâbitan ve efradin vapurlara duhullerine müsaade edilmemesine dair.

Harbiye Nezare-i Celilesine

Iki yüzü asker olmak üzere dört yüz seksen yolcu ile 21 Haziran 1332 tarihinde alelsabah saat dört buçukta Bandirma'dan Dersaadet limanina vürûd eden Osmanli Seyr-i Sefâin Idaresi'ne mensub "Buruk" Vapuru yolcularinin gerek esnâ-yi seferde ve gerek muayene-i tibbiyelerinin icrasinda ahval-i sihhiyelerinde daimi istibah bir hal görülemediginden vapura pratika verilerek yolcularin çikmalarina müsaade edildikten sonra vapurun kamara yolcularindan ve eczaci mülazimlarindan Mayer Efendi naminda bir zâbitin koleraya dûçar olup Alman Hastahanesi'nde taht-i tedaviye alindigi refiki olan bir tabib tarafindan Galata Karantinahanesi Idaresi'ne ihbar edilmesi üzerine, salifülzikr "Buruk" vapuru ile mürettebati hakkinda icâb eden tebhirat kemâl-i dikkât ve itina ile icra edilmis ise de bu babda icra kilinan tahkikat neticesinde eczaci mumaileyha Mayir Efendi ile yirmi kadar refikinin Bandirma'dan vapura rükûblarinda sihhiye tabibi ile vapura memur tabib tarafindan talep edilmis kolera asisi vesikalarini ibrâz etmeden vapura dahil olduklari ve binaenaleyh mezkûr asi ile asilandiklari anlasilmagla etibba-yi sihhiyeye asi vesikasi ibraz etmeyen zâbitan ve efradin vapurlara duhullerine müsaade edilmemesi husûsunun Bandirma'da icâb eden memurin-i askeriyeye emir ve teblig ve keyfiyetin sevk-i aciziyede inbâ buyurulmasi bâbinda emr-ü ferman hazret-i müsarünileyhindir.

Dahiliye ve Sihhiye Naziri 25 Haziran 1332

ATASE Kls no. 3499 Dno. 25 (F. 20)

5. Ordu Sihhiye Riyaseti'ne

Umumiyetle terhise tâbi olacak efrada çiçek ve yalniz birer defa ikiser santimetre mik'abi kolera ve tifo asilari icrasina ve tathirata baslayiniz. Icab eden vesikalar tab edilmekte olup üç gün sonra bir memurla Sihhiye Dairesi 2. Subesi'nden aldirilmasi ve kimsenin vesikasiz hareket etmemesine fevkâlade dikkat edilmesi ve her geçtikleri yerde vesika yoklanarak, asisi noksan olanlarin ikmali ve efradin birer birer gözden geçirilerek icab ederse tekrar tathirleri için emir verilmesi mütemennadir.

Sahra Sihhiye Müffetis-i Umumisi Müderrisi 3.11. 1334

Süleyman Numan

ATASE Kls no. 2416 Dno. 11 F. (1-9)

1. Ordu Sertabibi'ne,

Alinan bir rapora göre, Tuzla Tahaffuzhanesi tahmininden fazla izdihama mâruzdur. Hastaligi menbadan kesmek için yapilan bu tathirat ve tertibat böyle karambol devam ettigi ve Tuzla'da izdihami arttirdigi takdirde emsali misüllü .....müessifeye sebebiyet verecektir. 1. Kolorduca bunun önünü almak için Tuzla sertabibi ile muhabere etmeden sevkiyat yapilmamasi tamim edilmistir. Halbuki 5. Kolordu'da ordu sevkiyati fazla ve mucib-i izdiham bir haldedir. Tuzla'yi bir hastalik menbai yapmama ve efradini perisan birakmamak için sevkiyatin taht-i intizam kabili tesebbüsünde efrad sevkinin taht-i temine alinmasi maruzdur.

1. Kolordu Sertabibi Vekili

ATASE Kls no. 2213 Dno. 48 F. (1-39)

1- Efradin çiçek, karahumma, kolera asilariyla asilandiklari hüviyet cüzdanlarina kayd edildigi gibi hastaneye izamlarinda kitaat etibbasi tarafindan hasta tezkirelerine veya muvazzah künye kâgitlari bâlâsinda isaret olunmaktadir.
2- Hastanelere giren çiçek, karahumma ve kolerali efradin evvelce bu hastaliklar asisiyla asilanip asilanmadiklari hasta tezkirelerinde veya muvazzah künye kagitlarinda mukayyed degil ise hemen kit'asi tabibinden sorulmalidir.

Keyfiyetin umum kolordu kitaat sertabiplerine ve firka ve hastaneler sertabipleri tarafindan tâkibi matlubdur.

Sahra Sihhiye Müfettis-i Umumisi 8 Eylül 1330

ATASE Kls no. 2431 Dno. 96 F. (1/7 2-25)

Levazim ve Ordu Dairelerine,

Karargâh-i Umumi 3. Subesi'ne,

Anadolu'nun mevaki-i muhtelifesinde zuhur eden koleraya karsi bervechi âti mücadele açilacaktir.

1- Anadolu'dan simendiferle gelecek mezun perakende memur efrad-i ikmaliye ve kitaat-i askeriye bilaistisna Tuzla'ya indirilecek. Evvel emirde Tuzla'nin simendifer istasyonu civarindaki tebhirhanesinde tathir edildikten sonra beste bir nispetinde portör tari (?) edilecek ve iki gün fasila ile iki defa da kolera asisi yapildiktan sonra portör menfi çikanlar diger cihetindeki ikinci defa tathir ve istihmamdan sonra Istanbul'a gönderilecektir. Muayene-i bakteriyoloji, asi, tathirat en çok bes günde ikmal ve itmam edilecektir.

2- Karantinaya tâbi efrada kaynattirilmis su içirilecek ve mümkün oldugu kadar çay verilecektir. (Bu hususta icap eden çay ve sekerin Tuzla Hastanesi'ne acilen iadesi)

3- Sivil ahaliden olanlar dahi efrad-i askeriye ile ayni muameleye tâbi olacaktir.

4- Tahaffuzhane için ciddi bir tehlike olan ve plani Sihhiye Müdüriyet-i Umumisi'ne tevdî edilen lagimlarin bir an evvel insasina emir buyurulmasi.

5- Tahaffuzhanece muamele-i fenniyeleri ikmal edilmis olan efradin behemehal vapurla Istanbul'a sevkleri lazimdir.

Sahra Sihhiye Müfettis-i Umumisi 24. 3. 1332

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