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Epidemics, Politics and Public Health: Ludwig Rajchman, MD, The League of Nations Health Organization and the Creation of a Transnational Health Institution

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EPIDEMICS, POLITICS AND PUBLIC HEALTH: LUDWIG RAJCHMAN, MD, THE LEAGUE OF NATIONS HEALTH ORGANIZATION AND THE CREATION OF A TRANSNATIONAL HEALTH INSTITUTION

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By

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ABSTRACT

EPIDEMICS, POLITICS AND PUBLIC HEALTH: LUDWIG RAJCHMAN, MD, THE LEAGUE OF NATIONS HEALTH ORGANIZATION AND THE CREATION OF A TRANSNATIONAL HEALTH INSTITUTION

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Traditional scholarship on the League of Nations labels the organization as a failure because it did not prevent the outbreak of the World War II. Recent research examines League activities in a more comprehensive manner and concludes that the organization should be credited with important and enduring achievements. Perhaps the most successful work was carried out by the Health Section led by Dr. Ludwick Rajchman. Using primary sources from the League archives in Geneva, documents from organizations such as the Rockefeller Foundation, articles from medical journals and other relevant secondary sources, I argue that the Health Section, became the world's first transnational health organization. Under League auspices, the Health Section initiated important international public health programs which included the control of epidemic

diseases, standardization of laboratory testing, and the development of effective disease treatments.

This thesis also examines the Health Section's partnerships with private charitable foundations, which provided support for medical education and scientific meetings between medical experts from different nations. The most important of these conferences, the Sanitary Conventions are examined, because they facilitated the exchange of information and research data and encouraged productive communication between nations that had been bitter enemies during the Great War. I argue that the rightward shift in European political sentiment during the 1930's led to politicization and significant reduction in the scope and effectiveness of the Health Section's work. Finally, I examine the pivotal role Dr Ludwick Rajchman played in the planning and execution of the Health Section's public health programs and his role in the founding of UNICEF after World War II.

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Introduction

> *The Members of the League agree to encourage and promote the establishment and co-operation of duly authorized voluntary national Red Cross organizations having as purposes the improvement of health, the prevention of disease and the mitigation of suffering throughout the world.*
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> Article 25, Covenant of the League of Nations,

On December 10, 1920, the General Assembly of the League of Nations (LON) authorized the creation of a permanent Health Section (HS) as a part of the official structure of the new international organization operationalizing the spirit expressed in the LON charter, and recognizing that there was an international responsibility to improve health, prevent disease and mitigate suffering throughout the world. Historian Henry Markel observes that the creation of the Health Section was a significant event because it demonstrated that the international community was prepared to move beyond the limited health-related international agreements of the nineteenth and early twentieth centuries and embrace more comprehensive transnational agreements.[1] He suggests that this expanded cooperation was the result of the nexus between advances in science and medicine that had taken place over the course of the nineteenth century and an international recognition that there were benefits to being collectively responsible for the people's health.[2] The spirit of hope and the enthusiasm of the post-war "Wilsonian Moment" had contributed not only to the creation of the LON, but also to the idea that if nations joined together to create a more

[1] "The *Covenant of the League of Nations*" in Treaties and Other International Agreements if the United States of America, 1776-1949, ed. Charles I. Bevans (Washington, DC: Department of State, 1969), 2:57-58.

[2] "The *Covenant of the League of Nations*" in Treaties and Other International Agreements if the United States of America, 2:57-58.

equitable and healthy world, there was no limit to what could be accomplished.[3] All of these events came together at a propitious time and encouraged the League Assembly to agree to the formation of the HS.

This thesis examines the work of the LON Health Section which has traditionally attracted less historical interest than other League activities. Historians such as Susan Pedersen and Iris Borowy have argued that while the existence of the LON was insufficient to prevent World War II, the organization had many positive and important accomplishments. I wish to clarify that the organization and support of a dedicated Health Section was an overlooked and yet important accomplishment and reflected the recognition that protecting the public health was part of the security mission of the League of Nations. The thesis evaluates the ways in which the work of the HS contributed to this overall security mission and how the League supported the development of an international system of public health, medical education and research, vaccine standardization and laboratory science. Finally, this thesis demonstrates that the legacy of the HS is reflected in the organization and structure of the World Health Organization (WHO), the United Nations Children's Emergency Fund (UNICEF) and the present epidemiological and disease surveillance programs of the United Nations.

A transformational increase in global trade and human social interaction was an important result of the industrial revolution of the eighteenth and nineteenth centuries, and played a major role in the development of the cooperative international spirit of the 1920s and early 1930s. Social historian Akira Iriye has argued that between 1840 and1914, more frequent contact between people from different countries and cultures who had no prior experience with each other had led "nations and people to become strongly aware that they shared interests and

[3] Eric Manela, *The Wilsonian Moment.* (Oxford: Oxford University Press, 2007) 15.

objectives across national boundaries and that they could best solve their many problems by pooling resources and effecting transnational cooperation rather than through individual countries' unilateral efforts."[4] Iriye demonstrates that these interactions, at least among Europeans, contributed to the development of a global consciousness that coalesced into the movement that would be termed- "internationalism." The first steps taken by the international community toward coordinated action in the arena of international public health were due to these increased interactions and the willingness to collaborate and share advances in scientific and medical knowledge.

During the nineteenth century, new technology significantly reduced travel time by sea and facilitated the development and growth of railroad networks. These industrial advances also provided the means for colonial powers such as Britain and France to expand their empires through the more rapid and efficient movement of military forces, commercial goods, and people between the metropoles of London and Paris, and their colonies in India, Africa, Singapore, and Southeast Asia. One of the most important technological events of the century proved to be the opening of the Suez Canal in 1866: sailing through the canal instead of around the Horn of Africa reduced the risks of the voyage, shortened the travel distance by over 5000 miles and reduced sailing time from 14 to 10 days.[5] While military and economic needs initially motivated the adoption of a more internationalist perspective, as people ventured more frequently across international borders, they recognized other areas of common concern and interest.

An important, albeit unintended, consequence of the increase in international commerce and travel was the importation of infectious diseases onto the European continent. The deadliest of

[4]Akiea Iriye, Global Community; *The Role of International Organizations in The Making Of The Contemporary World*. (Berkeley: University of California Press, 2004) 37.
[5] *Malcolm Falkus, The Blue Funnel Legend: A History of the Ocean Steam Ship Company, 1865-1973*. (London: MacMillan Academic and Professional Press, 1990) 5.

these maladies, cholera, was carried by infected individuals aboard ships, most often British vessels to Europe, and then on to the West Indies, and North America.[6] The complete lack of knowledge regarding cholera's cause and mechanism of spread facilitated the dissemination of the disease from European Russia to Western Europe. By the third decade of the nineteenth century cholera had become endemic throughout the continent, and caused a series of pandemics that defied efforts by individual nations to limit their impact or spread.

For the first half of the nineteenth century, despite the extensive spread of cholera throughout Europe, the major powers discouraged multilateral discussions and even sharing of relevant medical and scientific information for fear that international control efforts might have a negative impact on commerce.[7] The effect of the cholera pandemics on European society was profound, and significant resources were expended on efforts to control the disease's spread. These measures were often harsh and included "cordoning national boundaries, sequestering infected areas, reporting, isolating the ill and fumigating travelers and their possessions."[8] Quarantines, used to curb outbreaks since the first plague epidemic of 1377 were attempted at both sea and land borders; ships, goods and people arriving from places with known cholera outbreaks were often quarantined for as long as two weeks. European countries forcibly removed affected individuals from their homes to hospitalize them, control measures that were more easily implemented in the autocratic states such as Russia, Austria, and the German States than in France, Sweden, or Britain. These efforts to control the spread of disease were costly, difficult to enforce, and because they lacked transnational coordination were ineffective.

The prevalent scientific opinion in Britain about the cause and manner of spread of cholera

[6] Peter Baldwin. *Contagion and The State In Europe, 1830-1930.* (Cambridge: Cambridge University Press, 2005) 57.
[7]Henry Markel "Worldly Approaches to Global Health: 1851 to the Present." 125.

differed from the majority view on the continent. As a result of the extensive observational experience of the Colonial Medical Service in India, many British health authorities accepted the idea that cholera was neither miasmic nor transmitted directly from person to person, a position whose practical result was that the use of quarantine and isolation within Britain was much more limited than in other parts of Europe.[9] Although the bacterial cause of this disease would not be clarified for another forty years, colonial medical officers had made the connection between poor environmental hygiene, namely the failure to safely dispose of human waste, and outbreaks of cholera.[10] During the pandemic of 1840-1850 rather than instituting extensive quarantine of affected areas, which had failed to limit mortality during prior outbreaks, the British government successfully reduced mortality through improved public sanitation, the expansion of existing sewer systems, construction of infrastructure to separate drinking water from waste, and the funding of scientific investigation of methods to control future pandemics of infectious diseases.[11]

British physician Dr. John Snow exemplified the more modern and scientific approach to the investigation of the cause epidemic disease in the 1830's when he proposed that cholera resulted from the consumption of water contaminated by sewage. Snow surmised that an outbreak of cholera in London's Soho neighborhood, the cause of six-hundred deaths in just a few days, was the direct result of drinking water from a specific pump on Broad Street that had been contaminated by human waste.[12]

Snow convinced the authorities that there was a connection between the waste contaminated

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[9] Dorothy Porter, ed. *Health, Civilization and the State: A History of Public Health From Ancient to Modern Times (*London: Routledge, 2006),186-187.
[10] John Eyler. Victorian Social Medicine. (Baltimore: Johns Hopkins University Press, 1979) 172-175.
[11] John Eyler. Victorian Social Medicine. 123-125.
[12] Sandra Hempel. *The Medical Detective; John Snow, Cholera and The Broad Street Pump.* (London: Granta Books, 2005) 87-88.

drinking water and the cholera epidemic, and while the bacterial cause was not identified until the work of Robert Koch was published in the 1880s and there were no further cases in the Soho district after the Broad Street pump was ordered closed. Snow's work provided strong evidence that the epidemic nature of cholera was not the result of human to human spread but environmental contamination, and allowed British authorities to begin to mitigate cholera's morbidity through the development of government funded public health projects such as sanitary sewers and wells safe for drinking water.[13]

Large scale cholera outbreaks ended in Europe at the turn of the twentieth century when the specific bacterial etiology, the vibrio bacteria, was identified. By 1900, the European scientific community had accepted the fact that drinking water contaminated by human waste containing the vibrio bacteria caused cholera epidemics. This discovery led to the subsequent development throughout the continent of public health infra-structure to separate fresh water from waste streams. Such advances in the nineteenth and early twentieth centuries led to greater social interaction and progress in medicine and science.

The nineteenth and the first years of the twentieth century were a period of considerable technological and economic change, more extensive social interaction, and a greater internationalist mindset. Charles Rosenberg, who has written extensively about the cholera epidemics of the nineteenth century comments that, "epidemic disease provided an excellent sampling device for studying the numerous yet organically related factors that underlie increases in economic productivity and economic change."[14] He also notes that during periods of epidemic disease, countries demonstrate their values and attitudes relative to science, religion and

[13] John Eyler. Victorian Social Medicine, 142-143.
[14] Charles Rosenberg. "Cholera in nineteenth-century Europe: A tool for social and economic analysis." *Comparative studies in Society and History* 8, (May,1966):452-63.

innovation as well as their degree of willingness to work with people previously believed to be outsiders.[15] His work as well as that of Norman Howard-Jones recognizes that during the eighteenth century, the recurrent outbreaks of cholera became viewed as something alien and outside of European society, and eventually motivated statesmen and scientists from different nations to understand the need to work together to ameliorate the devastating effects of epidemic diseases.

The emergence of cholera as both a cause of widespread morbidity and mortality on the European continent, and a disease that negatively impacted international trade and provided motivation for nations to begin coordinated transnational health efforts. The road toward collective action began with the Sanitary Conventions of 1853-1905 and eventually led to the creation of the Health Section of the League of Nations. I will detail these international efforts in the context of political and social changes over the period 1850-1948 in the following chapters.

Chapter I will discuss the work of the Sanitary Commissions of 1853-1914 and how advances in scientific and medical knowledge interacted with the diplomatic and political realities of the era. The content of Chapter II will include a discussion of the creation of the temporary Epidemic Commission 1919-1924, the organization of the permanent HS in 1924 and the activities the Section until the curtailment of its work in 1939. The maturation of the transnational system during the interwar period as exemplified by the creation of a worldwide epidemiological intelligence service, and the development of an international system of scientific standardization, medical education and public health will be reviewed.

The third chapter will chronicle the life and work of Ludwig Rajchman, the medical director of the Health Section from its inception as the Temporary Health Commission in 1919

[15] Charles Rosenberg. "Cholera in nineteenth-century Europe", 453.

until the outbreak of the Second World War in 1939. Rajchman's leading role in the development of an international public health surveillance system, the creation of a system of large-scale funding for international health education and research by private charitable foundations, and the creation of United Nations International Children's Emergency Fund (UNICEF) and the World Health Organization (WHO) will be discussed. While many other men and women contributed to the work of the Health Section, Rajchman had both the medical expertise, and required administrative skills to effectively facilitate international fieldwork and research with the local health authorities in member nations.

Chapter IV will serve as an epilogue that will briefly describes the post- World War II legacy of the Health Section of the League of Nations including the formation of the WHO and UNICEF. This section will also discuss opportunities for further research into the work of the League and a closer examination of the relationship with private charitable foundations. In *The Guardians,* Susan Pedersen, the highly respected historian of the League of Nations notes that despite its short existence, the League expanded its involvement in international affairs well beyond what its founders had anticipated in 1919[16]. Pedersen has commented on the ways in which the sections and commissions including Mandates Commission, Minorities Section, Drug Trafficking Section, and the Section on Women's Issues played essential roles in the LON's transformation into an agent of profound and lasting geopolitical transformation in Europe. and used this data to justify her revisionist rejection of the thesis of historians such as George Scott who argued that LON was a failure because "the institution that was supposed to end war, tragically failed to do so."[17] Pedersen rejects the negative views of the League because she believes that these judgments are

[16] Susan Pedersen. *Guardians: The League of Nations and the Crisis of Empire*. (Oxford: Oxford University Press, 2017), 5-8

[17] Susan Pedersen. *Guardians*, 10.

based on a narrow focus on political activities, and ignores the significant legacy of the many transnational endeavors that were carried out under League guidance.[18] In an earlier article published in the *American Historical Review* in 2007, she presents data to support her belief in a more balanced view of the LON and an appreciation of the positive long-term impact of the League on contemporary society.

Iris Borowy and Mark Harrison are also scholars of revisionist movement who have rejected the so-called "decline and fall narrative" of the League and approached its legacy from a different perspective.[19] They argue that before the 1990s, many of the important and successful activities carried out by the League of Nations had not received adequate study. Their work led to a series of new publications encouraging historians, "to look at the League with new eyes and appreciate how complex and consequential this first great experiment in international government really was."[20]

Iris Borowy reports on the work of the Health Section in *Coming to Terms with World Health: The League of Nations Health Organization, 1921-1946* and notes that when the League Assembly approved the organization of a dedicated health section, the representatives of the member states could not have predicted that the HS would become one of the League's most capable vehicles, "to further the process of what we might call internationalization, the process by which functions are displaced from the national and into the international realm."[21]

Paul Wiendling writes that the important accomplishments of the Health Section between

[18] Susan Pedersen, *Guardians, 12.*
[19] Iris Borowy, *Coming to Terms with World Health: The League of Nations Health Organization, 1921-1946* (Frankfurt: Peter Lang, 2009), 45.
[20] Iris Borowy, *Coming to Terms with World Health, 48.*
[21] Susan Pedersen. *Guardians*, 4-5.

1919 and 1938, are only part of the reason why this organizations both remains historically relevant and deserves further study.[22] Wiendling points out that the HS, under the leadership of Dr. Ludwig Rajchman, permanently altered the long-standing paradigm of race and heredity as the sole determinants of health. The work of the HS proved that environmental and physical surroundings played a more significant role than racial background or genetics, and that the development of public health infrastructure based on scientific knowledge had a huge part in reducing disease and promoting wellbeing.[23] The accurate collection and interpretation of scientific data coupled with advances in the understanding of disease causation and mechanisms of spread demonstrated the value of public health measures and preventive medicine to the international community.[24] The legacy of the Health Section extended beyond the formal demise of the LON in 1946, and the public health programs initiated during the inter-war period impact the current activities of the World Health Organization (WHO). This revisionist and more comprehensive approach toward the evaluation of the legacy of the League of Nations motivates my examination of the work of the Health Section to better understand the role it plays in the development of a positive legacy for the League.

The idea that an international organization would be able to provide effective health-related leadership, including funding for transnational efforts directed at the amelioration of disease and the improvement of health throughout the world, was controversial, and it would take time for these ideas to gain widespread acceptance. Even within the LON there were older, conservative diplomats such as the British representative Sir George Buchanan and League Under-

[22] Paul Weindling, "International Health Organizations and Movements, 1918–1939 by Paul Weindling.Cambridge. Core. Accessed March 01, 2018. https://www.cambridge.org/core/books/international-health-organisations-and-movements-19181939/91BC233A29984EFCA34A53B3B3DA10F7
[23] Paul Weindling, "International Health Organizations and Movements.
[24] Paul Weindling, "International Health Organizations and Movements.

Secretary-General Joseph Avenol of France, who objected to League involvement in direct health care outreach work. These more conservative elements within the Health Section Secretariat believed that the role of the LON as a transnational organization should be limited to the collection and dissemination of health-related information. They also argued that member states would reject offers to have League personnel work on public health-related projects in their nations in any case because most nations would view these efforts as a violation of their national sovereignty.

Beyond such concerns, there was also the question of how an international organization could best utilize available tools to address the health needs of the international community. The 1920s was a particularly exciting period in this regard because it became clear to scientists and physicians that the amelioration of disease was not merely a matter of better coordination in the use of disinfection or quarantine. Proof of the germ theory of infection had made it obvious that the identification of bacterial causes, the development of vaccines and attention to the environment were all required to control these epidemic conditions.

Pedersen suggests that the many successes of the sections and commissions of the League are particularly remarkable given that, "the League of Nations was not a state, and did not possess solitary decision-making structure or coercive power."[25] She attributes many of the organization's achievements to the so-called "third institution" of the League, officially referred to as the Secretariat. The Secretariat was the inspiration of Sir Eric Drummond, a British career diplomat and the first Secretary-General of the LON. Drummond designated the Secretariat as the part of the bureaucracy that would have actual responsibility for carrying out the policies agreed to by the General Assembly, the League Council, and any of the commissions or sections such as the Health Section.

[25]Susan Pedersen. *Guardians*, 5.

Norman Jones, one of the official historians of the United Nations (UN), during the latter part of the twentieth century, wrote that that Drummond, a committed internationalist, created an entirely new type of international bureaucracy, "structured by function and not nationality, loyal to an international charter, and capable of managing complex programs."[26] Due to budgetary restrictions, Drummond was compelled to limit the resources and size of the Secretariat's divisions, but he encouraged the individual sections to use the offices and imprimatur of the League to interface with international volunteer organizations. For example, during his tenure as the Health Section medical director, Rajchman utilized his LON position to secure long-term funding from the International Rockefeller Foundation based in New York. Rajchman used this funding to support many of the programs that contributed to the successes of the Health Section, which included frequent international scientific and medical conferences, physician exchange programs, and the creation of international standards for laboratories and vaccine preparations.[27]

The importance of the League Secretariat, as well as the health professionals who committed themselves to the mission of the Health Section between 1921and 1936, cannot be underestimated. The achievements of the HS were integral to the work of the LON and a product of the European internationalist movement that began in the nineteenth century and was rekindled following the Great War. The early efforts of the Health Section, especially in terms of controlling of epidemic diseases, are also worthy of documentation; they expanded prior international efforts to control the spread of epidemic diseases such as cholera, plague, and smallpox. Over the second half of the nineteenth century, these previous international efforts took the form of periodic

[26] Norman Jones. *International Public Health between the Two World Wars: The Organizational Problems* (Geneva: World Health Organization, 1978), 124.
[27]Norman Howard-Jones. *International Public Health between the Two World Wars, 128.*

international sanitary conventions that ultimately led to comprehensive international agreements.[28]

The history of the international public health movement was an integral part of the internationalist movement as is itself a complicated narrative. Advances in science and medicine during the nineteenth and twentieth centuries, particularly the identification of the causes of major epidemic diseases play an essential role in this story, such as a century-long debate over the role of government in the lives of people, the obligations of a government to its citizens, and the responsibility of sovereign nations to one another.[29] Most influential European nations eventually surrendered some degree of their sovereignty, economic and political, in order to advance international agreements that benefited the international community at large.[30]

This thesis will chronicle the process through which efforts to address health disparity and build an international public health program became part of the League of Nations security system. The accomplishments of the Health Section will be presented as an integral part of the League's role as an agent of global political change, and the legacy of the HS will be discussed and recognized due to its comprehensive infrastructure and the operational strategies of Rajchman and his team.

Chronicling the critical successes of the League in the arena of public health helps to refute the "decline and fall narrative," and make contemporary study of the organization relevant. Rather than condemn the League because of its failure to prevent the outbreak of World War II, this work supports the position of Susan Pedersen, who has argued that the prevailing judgment against the League requires reassessment, due to the many successful

[28] Akira Iriye, *Global Community, The Role of International Organizations In the Making Of The Contemporary World,* 10.
[29] Akira Iriye. *Global Community,*13.
[30] Akira Iriye. *Global Community*, 11.

transnational endeavors carried out under League guidance.[31] Pedersen notes that the complexity of the contemporary world has "led historians to look back at the League with new eyes, and to appreciate how complex and consequential this first great experiment in international government really was."[32] The paper will also argue that the living legacy of the Health Section in the contemporary world is proof of its relevance for ongoing study. Examples of this legacy include the World Health Organization, formed in 1948 with an organizational structure and function derived directly from the Health Section of the LON, and UNICEF, a direct outgrowth of programs directed toward the health and welfare of children initiated during the 1930s and re-started in 1945.

[31] Susan Pedersen. *Guardians,*6-7.
[32] Susan Pedersen, *Guardians,* 5.

CHAPTER I: INTERNATIONAL EFFORTS BEFORE THE LEAGUE OF NATION

"In the field of observation, chance favors only the prepared mind."

Louis Pasteur, M.D.
Dean, Faculty of Sciences, Lille
December 7, 1854

The introduction discusses the 19th century European cholera pandemics describes them as unintended and significant consequence of industrialization and the concomitant improvements in technology. The recurrent and extensive nature of these pandemics was shown to an be important motivation for the increase in transnational cooperation that occurred during the second half of the century. Cholera was the most important epidemic disease of the 19th century, but clearly not the first infectious disease that had affected human society and altered economic and social development.

This chapter will discuss the response of European societies to bubonic plague which was a disease that had affected Europe in pandemic waves from the 15th-18 centuries. I will argue that the theories as to the cause of plague, communicability, and efforts taken to control spread, were identical to those applied to cholera and other infectious diseases until the second half of the 19th century. The chapter will demonstrate that European scientist and physicians were not prepared to alter their long- held ideas until work of Koch in the 1880s provided proof of the germ theory of disease. The exciting expansion of knowledge regarding the actual cause of infectious diseases and how they might be controlled, encouraged communication, and facilitated meetings between scientists from different nations. Eventually, the diplomats and national leaders of the European states elected to expand the scope of these professional interactions to include the negotiation of international agreements based on the work of their scientists and physicians. The agreements reached prior to the Great War formed the basis for the expanded international cooperation

during the inter-war period and the formation of the Health Section (HS) by the League of Nations.

The Understanding of Disease and the Use of Quarantine Prior to the 19th Century

As early as biblical times, there is documentation of the existence of leprosy and the belief that the disease passed directly from one person to another. The Book of Leviticus, the third book of the Old Testament, prescribed a specific set of rules to prevent the spread of this disease. The regulations mandated the isolation of lepers so that they would not have direct contact with the rest of the community.[1] These biblical prescriptions were cited over the centuries as the basis for the use of isolation and quarantine during outbreaks of the plague or other conditions that were believed to be spread by human contact.[2] The practice of quarantine, as it was carried out in the 19th century, actually began during the 14th century to protect coastal cities from plague epidemics. Ships arriving in Venice from infected ports were required to sit at anchor for 40 days before landing. This practice, called quarantine, was derived from the Italian words *quaranta giorni* which meant 40 days.[3]

Despite the lack of understanding of the cause of disease, observation by men of learning in the 14th century had connected the spread of plague with the arrival of people, produce, and animals from Asia and the east.[4] The assumption that this disease, as well as other infections, spread directly from infected individuals to healthy people led to the development of policies for the quarantine of the sick. The specific measures of isolation and quarantine would differ from

[1] Leviticus 13-14 (ESV).
[2] Gergio Alfani. "Plague in 17th century Europe and the decline of Italy." *European Review of Economic History,* 17(2013):406-430.
[3] 'Quarantine and Isolation', The History of Quarantine in the Middle Ages, accessed May 30, 2020, https://www.cdc.gov/quatentine/historyquarantine.html.
[4] Charles Rosenberg. *Explaining Epidemics and Other Studies In the History of Medicine* (Philadelphia: University of Pennsylvania Press, 1992), 1-8.

one European state to the next but would continue in some form until the beginning of organized international epidemic control efforts in the latter part of the 19th century. For the various German States, these measures often included attempts to prevent people that appeared ill from crossing the border, most often from Eastern Europe, or detaining them at border stations under observation. There were also in-state attempts to control the spread of disease, which included the quarantine of entire areas or mandatory movement of sick individuals to hospitals where they could be isolated until they had recovered or died.[5] Despite the use of the police and the army, the German states as well as the neighboring countries found it impossible to control all border crossings, and quarantine as a method to control the spread of an epidemic was generally ineffective. Although the failure of these harsh measures led to the recognition that less intrusive methods might suffice, nations such as Sweden persisted with the enforcement of strict quarantine well into the 20th century. [6]

Before the 19th century, the extensive use of quarantine failed to prevent the spread of Bubonic plague, also referred to as the Black Death. Prior to the Spanish influenza pandemic of 1918, plague was the most devastating epidemic disease in human history. Plague first appeared in Europe in 1347, and recurrent outbreaks occurred at irregular intervals for the next four hundred years.[7] Over the course of the 14th century alone, Bubonic Plague is estimated to have killed 50% of Europe's population of about 54 million, and it was not until the mid-17th century that the number of people living on the continent had recovered to the level of 1350.[8] Once infected with plague, case fatality rates appear to have been between 30-60%.[9] Throughout

[5] Peter Baldwin. *Contagion and the State in Europe: 1830-1930* (Cambridge: Cambridge University Press, 2005),158-159.
[6] Peter Baldwin. Contagion, 159.
[7] John Kelly. *The Great Mortality: An Intimate History of The Black Death* (New York: Harper Collins, 2005), 1-28.
[8] John Kelly, *The Great Mortality,* 1-28.
[9] Charles Rosenberg. *Explaining Epidemics and Other Studies In the History of Medicine*, 6-8.

Europe, victims of the plague were commonly isolated in Plague Houses along with unaffected family members and servants for the *quaranta giorni*. These Plague Houses often extended beyond a single dwelling and often encompassed entire areas of towns or cities. The rationale for the forty-day duration of quarantine was the observation that this was the time required for the plague to die out in an isolated house or community.[10] These actions were only partially effective in limiting the course of an outbreak, and it was not until the 20th century that the reasons for the failure of quarantine were clarified.

The study of the history of plague provides perspective on the relationship between population migration and disease, the importance of environmental factors, and the role of intermediate animal or insect hosts in human epidemics. Yersinia pestis, the bacterium that was the putative cause of bubonic plague, is believed to have originated in Central Asia over 2000 years ago. Beginning in the 1st century BCE, plague was spread beyond its place of origin by fleas infected with Yersinia pestis and carried by rats that infested the caravans of traders along the Silk Road between China and parts of Southern Europe. Over the centuries, the increased commercial contacts between East and West further disseminated the Yersinia, and by the 14th century, the bacteria had spread to the remainder of the Italian Peninsula, the Balkans and Crimea. The disease was carried on merchant ships throughout the Mediterranean and in 1347 there was a major outbreak of plague in Venice which at the time was one of the most important cities in Europe.[11] There is documentation of recurrent epidemics of the Black Death in England, France, Spain, Russia and the Italian peninsula during the 16th and 17th centuries, and evidence suggests

[10] John Kelly, *The Great Mortality,* 1-28.
[11] George Kohn. *Encyclopedia of Plague and Pestilence: From Ancient Times to the Present* (New York: Facts on File, 2007), 30-34.

that plague was present somewhere in Europe in every year between 1346 and 1671.[12] The final major outbreak of plague in Europe was the Great Plague of Marseilles that occurred in 1720 and took 200,000 lives in the city and the surrounding provinces and towns.[13]

Bubonic plague essentially disappeared from the European continent after 1800. However, over the course of the nineteenth century, the countries of Europe were forced to contend with another deadly and novel disease pandemic, this one caused by cholera. The term cholera derives from the Greek word *chole* (bile) and was described by the Greek physician Galen, "as a flushing of bile from the body to rebalance the four humors of blood, bile, black bile and phlegm."[14] Europeans first learned about cholera from the writings of Gaspar Correa, a Portuguese author and historian who traveled throughout India in the 16th century. In 1543, he described a significant outbreak of dysentery in the Ganges Delta, which killed so many victims, often within only a few hours of the onset of symptoms, that the "locals struggled to bury all the dead."[15] Over the following two centuries, as the British, French, Portuguese, and Dutch established their presence in India and Asia, colonial and military officials frequently reported cholera outbreaks that killed many of the native people as well as the European colonial authorities.[16]

The historiographical and epidemiological study of cholera during the 19th century has demonstrated that disease occurred in an episodic manner.[17] Outside of Asia or the Indian subcontinent, the first significant outbreak of cholera occurred in 1821 in the region of the Persian Gulf, carried by infected British troops who traveled for duty in Oman from India.[18]

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[12] Jay Hays. *The Burdens of Disease: Epidemics and Human Response in Western History* (New Brunswick: Rutgers University Press,1998), 28-29.
[13] John Kelly, *The Great Mortality,* 1-28.
[14] Nicholas Mannikko, "Cholera, Emerging Infectious Disease," *Etymologia, 1*7, (2012): 12-18.
[15] Peter Baldwin. *Contagion and The State In Europe, 1830-1930,* 3.
[16] Peter Baldwin. *Contagion and The State In Europe, 1830-1930,* 5.
[17] Peter Baldwin. *Contagion And The State In Europe, 1830-1930,* 9.
[18] SL Kotar and JE Gessler. Cholera: A Worldwide History. (Jefferson: MacFarland & Company, 2014) 5.

During this outbreak which lasted for three years, at least 100,000 Indian and 10,000 British troops died.[19]

There is a record of a second pandemic that also began in India in 1829. In this case, cholera spread along trade and military routes to Central Asia and by 1832 had reached Russia, Finland, Poland, Hungary, Germany, France, and England.[20] The cities of Hamburg, Paris, and London were the most seriously impacted and records reflected that about 5% of the population of each of these cities died of cholera during this second pandemic.[21] At around the same period, cholera was introduced for the first tine to the United States, Canada, and Mexico by infected sailors, businessmen and other travelers that had arrived on European ships. Charles Rosenberg has described the horrific impact of the cholera pandemics of 1832, 1849 and 1866 cholera on the health of the residents in the cities of the East coast of the U.S, as well as enslaved persons in the southern states, and the various native American populations.[22] Smaller cholera outbreaks would occur in the U.S. until the end of the 19th century.

When cholera first struck Europe in the 1830s, scientists and physicians still believed that disease was spread through the inhalation of miasma, a noxious form of "bad air", also described as "night air."[23] The miasma theory had been an integral aspect of scientific thought since the 14th century when Bubonic Plaque first appeared in Europe. The theory held that miasma emanated from rotting organic matter and spread the disease from person to person particularly when atmospheric and climatic conditions were favorable.[24] Acceptance of this theory also

[19] SL Kotar and JE Gessler. Cholera, 6.
[20] SL Kotar and JE Gessler. Cholera, 14.
[21] SL Kotar and JE Gessler. Cholera, 16-17.
[22] Charles Rosenberg. *The Cholera Years*. (Chicago: University of Chicago Press, 1987) 3-4.
[23] Linda Nash, *Inescapable Ecologies: A History of Environment, Disease, and Knowledge*. (Berkley: University of California Press, 2007) 49-50.
[24] Linda Nash, *Inescapable Ecologies,* 49-50.
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carried with it the belief that dissemination of disease through the atmosphere was immune from control and could not be impacted by any human intervention. The miasma theory held sway for much of the 19th century. In fact, it was used by some of the European nations, including Britain, as a rationale, to withhold participation in any transnational agreement to control cholera. In the 1880's, the work of German bacteriologist Robert Koch proved that cholera was caused by the vibrio bacteria, the discovery which ushered in the era of the germ theory of disease. Koch's publications played a major role in changing the paradigm regarding the cause of epidemic disease and how they were spread. Acceptance of the germ theory made it feasible and in fact desirable to forge international agreements that could effectively reduce the spread of these diseases and also to contemplate the design of public health infrastructure based on the newly evolving scientific knowledge.

Despite Koch's discovery, it took time for the continent to make these adjustments, and cholera hardly slowed its course in the interim. Both unpredictable and episodic between 1820 and 1896, Europe fell victim to five distinct pandemics. It is estimated that over the course of the 19th century, these outbreaks killed at least two million Europeans, with 250,000 recorded deaths during the last major outbreak of 1881-1896 alone.[25] One of the difficulties inherent in the attempt to analyze cholera related morbidity and mortality during the 19th-century cases is that until about 1850, cholera was a diagnosis used to for any illness that manifested with diarrhea or dysentery. By the 1850s, the term Asiatic cholera or just cholera was reserved for large scale outbreaks and presumed original geographical origin of this disease to be India, China, and parts of Southeast Asia.[26]

[25] Dorothy Porter, ed. *The History of Public Health in the Modern State*. (Amsterdam: The Welcome Trust, 1994) 8-10.
[26] Dorothy Porter, ed. *The History of Public Health in the Modern State*. (Amsterdam: The Welcome Trust, 1994) 8-10.

By the mid-18th century plague epidemics had abated, and scientists particularly, in France and Germany turned their attention to a scientific consideration of the causes of disease. Both the long held theological teaching of illness as a punishment for sin, as well as Galen's miasma theory began to give way to the observation that it was the environmental contamination of water, crowded living conditions and possibly microorganisms in soil or water that spread disease.[27] By the early part of the 19th century, scientists such as Athanasius Kircher and Ignaz Semmelweis were also investigating why certain individuals were more susceptible to illnesses.[28] The evolution in thought which sought an understanding of disease based on discovery and data was a major step on the road toward international cooperation and the development of measures that would reduce the risk for disease transmission.

Despite the widespread morbidity and mortality associated with the second cholera pandemic of 1826 to 1837 and the tens of thousands of death caused by the third pandemic which began around 1846, the European states were unwilling to hold multilateral discussions to address the epidemic.[29] With the exception of the British, French, and Prussian governments, none of the other nations even allocated public funding toward the support of relevant research or the application of new scientific knowledge.[30] Strong disagreement persisted among the various national medical communities as to the cause of cholera, or how it was spread. Nevertheless, quarantine continued to be extensively employed although specific measures and durations differed by nation.[31]

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[27] Jay Hays. *The Burdens of Disease: Epidemics and Human Response in Western Europe*, 6-8.
[28] Jay Hays. *The Burdens of Disease: Epidemics and Human Response in Western Europe*, 6-8.
[29] Ibid, 25.
[30] Joan Audretsch, "The economics of science and technology," *The Journal of Technology Transfer* 27 (2002): 159.
[31] JN Hayes, *Epidemics and Pandemics: Their Impact on Human History*, (Santa Barbara: ABC-Clio,2002) 214-219.

Even the historical understanding of the term, "epidemic disease," is confusing and the meaning changed over the course of the 19th century. From 1800-1860, epidemic diseases were understood to be those human maladies that were not directly communicable from the sick to the healthy.[32] Rather, "they simultaneously affected large numbers of persons under the influence of certain atmospheric, climatic, and soil conditions to which filth was often added, the whole forming an epidemic constitution."[33] During this period of time, there was also a widely held belief in the transmutability of epidemic disease, and the idea that cholera, yellow fever, and plague were actually the same disease, "manifesting in different guises according to the reigning epidemic constitution.[34] By the end of the century, these myths had been dispelled, the germ theory of disease had been accepted, and epidemic disease was understood to be those conditions that were transmitted from the sick to the healthy either directly or by environmental contamination.

For most of the 19th century, Britain was the principle maritime and commercial power, and objected to the quarantine of its ships and goods. France, Belgium, Spain, Portugal, and Russia held to the belief that cholera was contagious and could be spread by infected individuals or from contaminated cargo or supplies. To contain the spread of the disease, quarantines were imposed although they were applied indiscriminately and for varying durations of time. The official position of the British government was that cholera was not directly contagious and that quarantine was unnecessary in most circumstances.[35] Medical historian Howard-Jones noted that while the British position was based partly on the science derived from the experience with cholera in India, the government's anti-quarantine position was also self-serving based on the

[32] Henry Markel, "Approaches to global health:1851 to the present," *Public Health,* 10 (2014), 125.
[33] Henry Markel, "Approaches to global health:1851 to the present," *Public Health,* 10 (2014), 125.
[34] Henry Markel, "Approaches to global health:1851 to the present," *Public Health,* 10 (2014), 125.
[35]Ibid.

desire to limit the impact of international actions on British commerce because, "Britain's traffic with the rest of the world was too great to permit quarantinist detention."[36] In any case, while the European nations continued to act independently, the continent continued to experience serious episodic cholera pandemics roughly every twenty years until the end of the century

Cholera was not the only infectious disease ravaging Europe during the nineteenth century, and it was the continent's response to another that set the stage for government funded measures to improve public health. In 1820 that vaccination with pus from cowpox blisters conferred immunity to smallpox. Jenner theorized that there were specific germs that caused cowpox and that these microbes were similar to those that led to smallpox.[37] Unfortunately, Jenner lacked the necessary microbiological and microscopic technology to conclusively prove his microbe theory, and it would be another 60 years until the modern germ theory of disease would be accepted by the entire European scientific community.

Despite the availability of the cowpox vaccine after 1825, the annual number of smallpox related deaths in Britain continued to average 25,000-50,000.[38] Smallpox mortality did not decrease until after 1841 when the Tory government of Lord Melbourne's passed the first important piece of Victorian public health legislation entitled The Vaccination Act.[39] This legislation was significant because it recognized the public health benefits of cowpox inoculation as a measure to prevent smallpox and provided the vaccinations free of charge throughout England. This was the first in a series of vaccination related measures passed by Parliament between 1840-1907 that facilitated vaccination against infectious diseases as a matter of

[36] Norman Howard Jones, "The Scientific background of the International Sanitary Conferences 1851-1938," History of International Public Health No.1 WHO Chronicle, 1974, 11.
[37] Peter Baldwin. Contagion and The State In Europe, 1830-1930, 14-15
[38] Peter Baldwin. Contagion, 20-21.
[39] Peter Baldwin. Contagion, 22.

government sponsored public health. Most of the other European states including France and Germany adopted similar cowpox vaccination programs during the second half of the 19th century. This first publicly funded public health measure began a political shift toward governments assuming responsibility for the health of citizens and collective international responsibility for the control of disease.

The Sanitary Conventions of the 19th Century

As a response to the cholera epidemic of the 1830s, of the French Ministry of Commerce proposed an international meeting in 1834 to, "standardize quarantine and protective measures against the importation of cholera and other exotic diseases."[40] The French government had taken a more enlightened and progressive stance toward the support of public health since the French Revolution when good health was declared a right of citizenship.[41] The French scientific community had embraced the doctrine of *hygienism*, which historian Ann La Berge defined as, "a belief that all areas of life should be medicalized and moralized to prevent disease and promote public health in concert with other nations in the interest of social order and national security."[42] The French proposal for an international meeting failed to gain the support of most of the other European states. Howard-Jones suggested that the lack of enthusiasm for an international conference was based on the persistent scientific disagreements as to the cause and mechanism of spread of smallpox. He also noted that Britain, as the major commercial power in Europe, did not support the proposal for an international conference due to concerns about the potential negative effect such a meeting might have on British commercial interests.[43]

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[40] Peter Baldwin. Contagion, 11-12.
[41]Dorothy Porter *Health Civilization and the State. A history of Public health from Ancient to Modern Times.* (London: Routledge,1999) 63.
[42]Ann La Berge, *Mission and Method, The Early Nineteenth Century French Public Health Movement*. (Cambridge: Cambridge University Press, 1992) 316.
[43]Ann La Berge, *Mission and Method,*316.

The severity of the cholera epidemics at mid-century, and the persistence of French diplomatic lobbying efforts convinced the British government to drop its objection to an international meeting, and allowed the First International Sanitary Conference to convene in Paris between July-October,1851. Representatives from eleven European countries plus the Ottoman Empire attended, and each nation sent two delegates, one a physician or scientist, and the other a diplomat. Delegates participated in scientific presentations about cholera, yellow fever, and plague, and considered the promulgation of quarantine regulations that might reduce the spread of these diseases. At the opening session of the conference, statements made by the British, Prussian, and Russian representatives made it clear that they were not attending the meeting for purely altruistic reasons. Norman Howard-Jones, former director of research services for the World Health Organization, explained, " what governments found most irksome were the often disastrous hindrances to international commerce, and it was this concern that finally prompted the European nations to meet to discuss to what extent these onerous restrictions could be lifted without undue risk to the health of their populations, and it was true that the first faltering steps towards international health cooperation followed trade."[44] Unfortunately the conference highlighted the serious differences of opinion between the medical scientists relative to the cause of cholera and the disagreements between diplomats about the specifics and length of potential quarantine measures. In his discussion of the origins of international health cooperation, Siddiqi noted that the lack of knowledge relative to the etiology of cholera or the true mode of transmission, "was no bar to the holding of convictions that were, both among as well as within each country, as strong as they were contradictory."[45] With this observation, he also suggests that Britain's public position that cholera was not transmissible from one person to another, was

[44] Norman Howard-Jones, *The Scientific Background of the International Sanitary Conferences,*17-18.
[45] Siddiqi, *World Health and World Politics,* 17.

based more on economic and political considerations than on the opinions of scientists and physicians.[46]

The controversies were obvious during the first plenary session when the physician delegate from the Austrian Empire, Dr. G.M. Menis declared that, "Austria had tried quarantine measures against cholera and that far from reducing the ravages of the disease, quarantine only made it more frightening and fatal."[47] Menis stated that the official position of the Austrian government was that unlike yellow fever or plague, cholera was a "purely epidemic disease spread by miasma," that would not be controlled by measures of international quarantine.[48] Menis further stated that he was only attending the meeting to present the views of his government and that he was prohibited from even engaging in any multilateral discussions of this malady.[49]

Austria's position on the issue was supported by Dr J Sutherland, the medical delegate from Britain. He stated that it was also the position of the British Government that cholera was an, "epidemic disease and that quarantine measures had no efficacy against it."[50] In retrospect, the official British position as expressed by the medical delegate to this convention in 1851 appeared to have been based on non- health related considerations and not the unanimity of opinion among British scientists and physician.[51] As part of his analysis of this First Sanitary Conference, Howard-Jones noted that in 1849 it had been widely reported in the English press, that John Snow of London, and William Budd of Bristol had both independently written that their respective epidemiological study strongly suggested that, "cholera was transmitted by water contaminated with human feces.[52] It is unlikely that Dr Sutherland was not aware of these

[46] Siddiqi, *World Health and World Politics,* 17-18.
[47] Siddiqi, *World Health and World Politics*, 22.
[48]Howard-Jones, "The Scientific background of the International Sanitary Conferences 1851-1938," 14.
[49] Howard-Jones, "The Scientific background of the International Sanitary Conferences 1851-1938," 14.
[50] Howard-Jones, "The Scientific background of the International Sanitary Conferences 1851-1938,", 15-16.
[51] Howard-Jones, "The Scientific background of the International Sanitary Conferences 1851-1938,", 16.
[52] Howard-Jones, "The Scientific background of the International Sanitary Conferences 1851-1938," 16.

findings and more than curious that he not only omitted mention of this information in any of his speeches at the meeting but also continued to support the idea of cholera as a non-communicable disease.

Despite meeting continuously in Paris for over three months, the conference did not produce any formal agreements. The meeting had showcased the serious international scientific disagreements regarding infectious diseases, and the refusal by participating states, particularly Britain, to agree to any kind of international quarantine accord that would limit national sovereignty. However, this first meeting did establish the important precedent that health related issues were a legitimate topic for international discussion and that prevention of the spread of disease was a matter for collective consideration. The final communique published after the meeting did not commit the nations to any specific actions but promised that future conferences would be held.[53]

Nine subsequent Sanitary Conventions were held between 1859-1912, hosted by the cities of Paris, Vienna, Istanbul, Washington, Rome, Dresden, and Venice. France, Britain, Turkey, Russia, and Germany were represented at all these meetings while other European nations, Japan, and America attended only the later conferences.[54] The agendas for these ten meetings were similar, and the goal over the entire fifty year period was to develop a set of international consensus guidelines for the control of cholera as well as plague and yellow fever.[55] The second and third Sanitary Conventions were held in Paris in 1859, and Constantinople in 1866 respectively but also failed to produce a formal international agreement.[56] Disagreements continued about how cholera spread, and the type of quarantine measures that were needed.

[53] Howard-Jones, "The Scientific background of the International Sanitary Conferences 1851-1938," 15.
[54] Hugh Cummings, "The International Sanitary Conference," *American Journal of Public Health,* 10 (1926):976.
[55] Howard-Jones, "The Scientific background of the International Sanitary Conferences 1851-1938," 49.
[56] Howard-Jones, "The Scientific background of the International Sanitary Conferences 1851-1938," 17, 34.

British representatives continued to argue that the quarantine measures proposed for agreement were overly restrictive in scope and would have a negative effect on international commerce. Limited agreements regarding quarantine rules were signed by convention delegates at the end of both meetings but these concords never ratified by the governments of the participating nations. The dynamics of the sanitary conventions changed at the 1874 meeting due in large measure to the advances in the field of microbiology and improvements in microscopy. During the final quarter of the 19th century these technological advances finally produced definitive evidence that the etiology of cholera was a specific type of bacterial infection. Epidemiological investigation during the period 1840-1870 with techniques developed by British physician William Farr during the 1840s had also demonstrated that the cholera bacteria was present in the waste of infected individuals and that consumption of water contaminated with this human waste caused the outbreak of cholera epidemics.[57]

These scientific and epidemiological advances of the 1870s were the culmination of work that had been done earlier in the century. The first definitive progress relative to the identification of the infectious etiology of cholera actually dated to 1854, when Italian microbiologist Filippo Pacini published a monograph in which he documented the presence of what he referred to as the vibrio bacteria in the intestine of numerous patients that had died from this illness.[58] Pacini's investigations strongly suggested that cholera was a bacterial contagion, "caused by an organic, living substance of a parasitic nature, which can communicate itself, reproduce itself and hereby produce a specific disease"[59] For the next thirty years, Pacini worked to gain international acceptance of his work and presented his data at the Sanitary Conventions of 1859, 1866, 1874

[57]John Eyler, *Victorian Social Medicine, The Ideas and Methods of William Farr.* (Baltimore: Johns Hopkins University Press, 1979), 97.
[58]John Eyler, *Victorian Social Medicine* 105.
[59]John Eyler, *Victorian Social Medicine*, 117.

and 1881.[60] Until the 1874 convention, members of the German scientific delegation as well as those from Britain continued to reject the idea of the bacterial causation of cholera.[61]

Shortly after Pacini completed his original work, British physician John Snow publicized the results of his study of the 1854-1855 cholera outbreak in the London neighborhood of Soho.[62] Snow's investigation included interviews with local residents, use of a dot map to illustrate the location of all reported cases, a careful assessment of municipal water quality, and the first use of statistical calculations to help identify the source of the outbreak and prove that cholera was transmitted through drinking contaminated water. His methods would be expanded upon by Dr. Farr who would use the discipline of epidemiology to study morbidity and mortality in Victorian England and to make recommendations that helped to solve many public health problems.

The fifth International Sanitary Conference was held the invitation of the United States in Washington, D.C. and lasted from January 5-March 1. 1881. Over the course of this meeting, the U.S. representatives lobbied to obtain international support to for a piece of domestic legislation passed by Congress in 1879, " to prevent the introduction of contagious or infectious diseases into the United States."[63] The law concerned cholera and yellow fever, and required that any vessel whose destination was the U.S. have a sanitary certificate issued by an American consulate official at the point of origin.[64] The premise that independent nations would be willing to surrender their sovereignty and allow a U.S. official to board and inspect ships in a non-U.S. port was fatally flawed. The conference lasted almost two months and despite maximum diplomatic pressure, no major foreign power present in Washington acceded to these American

[60] Howard-Jones, "The Scientific background of the International Sanitary Conferences 1851-1938," 35.
[61] Howard-Jones, "The Scientific background of the International Sanitary Conferences 1851-1938,", 36.
[62] Howard-Jones, "The Scientific background of the International Sanitary Conferences 1851-1938,", 1130-31.
[63]Howard-Jones, "The Scientific background of the International Sanitary Conferences 1851-1938," 43.
[64] Howard-Jones, "The Scientific background of the International Sanitary Conferences 1851-1938," 43.

demands.[65] Despite the major diplomatic embarrassment experienced by the United States, and the lack of formal agreements, the conference would be remembered because it differed significantly from the four prior gatherings. Specifically, this was the first transnational gathering ever held in the Western Hemisphere and delegates attended from many nations that had never previously participated. The U.S. was formally represented for the first time and would continue to expand its international engagement in matters of public health. It was also the first appearance at an international health conference for the Latin American countries as well as Haiti, China, Japan, and Liberia.[66] Until the League of Nations was organized in 1919, the 1881 convention was the only international conference to have the proceedings issued in English as well as French and the first time that a formal proposal was made at an international forum to create, "a permanent International Sanitary Agency of Notification," one branch in Vienna and a second in Havana.[67] Although an international agency was not constituted at that time, these discussions would serve as the paradigm for the organization of both the Pan American Sanitary Bureau and the Office of Internationale Hygiene Publique (OIHP) shortly after the turn of the 20th century. [68]

The rapid progress of scientific knowledge contributed to more frequent international conventions over the remaining years of the 19th century and the Paris meeting in 1894 was the third to be held within two years. During the 1894 convention, French diplomat, Camille Barriere, who had been elected president of the meeting, summarized the achievements of the past seven years. He noted that in Venice in 1892, an international agreement was reached on how to keep cholera out of Egypt and the Mediterranean, and in Dresden the following year, a

[65] Howard-Jones, "The Scientific background of the International Sanitary Conferences 1851-1938," 43-44.
[66]Howard-Jones, "The Scientific background of the International Sanitary Conferences 1851-1938,"44.
[67]Howard-Jones, "The Scientific background of the International Sanitary Conferences 1851-1938,", 45.
[68]Howard-Jones, "The Scientific background of the International Sanitary Conferences 1851-1938," 45-46.

comprehensive system of notification was put in place to minimize the spread of cholera to Europe.[69] Barriere also spoke of the need to definitively address the spread of cholera that resulted from the annual pilgrimage to Mecca. This yearly mass migration from British India, the Dutch East Indies, Asian Russia and Bosnia-Herzegovina, where cholera was endemic, to Mecca for the Haj, as well as the overcrowding in the places of worship and temporary shelter had caused deaths of tens of thousands of pilgrims during the first half of the 19th century.[70] People who became infected during the Haj often carried cholera back to their homelands and then on to the European mainland. Dr. C. Izzedine who was the medical officer in Mecca reported to the Paris conference that during the pilgrimage in 1893, there were over thirty-thousand deaths from cholera, which represented fifteen percent of the total number of pilgrims that had made the journey.[71] It was a reflection of the increased international commitment to health related issues that the nations at the Paris meeting were also able to reach agreement on a plan that would significantly reduce the mortality and spread of cholera associated with the Haj.

At the Eighth Sanitary Convention in 1893, a comprehensive international agreement was ratified that established a formal mechanism to inform all signatory nations in the event of an infectious disease outbreak in Europe or North America. A consensus was also reached about the duration of quarantine that could be applied to people or commerce arriving from areas where a significant number of cholera cases had been identified. This agreement, while limited to the issues of notification and aspects of quarantine, was noteworthy because it represented the first formal transnational health related agreement to be concluded and implemented among nations. The 1893 accord served to encourage the expansion of international public health related

[69]Alison Bashford. *Medicine at the Border: Disease, Globalization and Security, 1850 to the Present*. (Basingstoke: Macmillan, 2014) 157.
[70]Alison Bashford. *Medicine at the Border*, 160.
[71]Alison Bashford. *Medicine at the Border,160-161.*

dialogue to include other areas of mutual concern such as international narcotics trafficking, nutrition and the health of children, and women's rights. The pace of these discussions accelerated during the early part of the 20th century, and additional agreements that standardized scientific weights are measures, and addressed worker safety were concluded prior to the outbreak of the Great War in September 1914. Siddiqi has noted that these agreements set a precedent in the ongoing development of the internationalist perspective that would ultimately culminate in the creation of the Health Section of the LON in 1919.[72]

The slow progress toward international agreement as related to measures to control cholera and the other infectious diseases was unfortunate given the harsh toll that the pandemics had taken on most of the European countries. Looking back from the perspective of the inter-war years, Dr. Hugh S. Cumming, then Surgeon General of the United States, reflected in 1926 that although the world's powers recognized the need to control the spread of epidemic diseases before the Great War, progress toward international agreement was slow in part because, "it had to be recalled that little was known about the etiology or epidemiology of these diseases until the later decades of the nineteenth century although there had been long established so-called quarantines against infected ports."[73] Historian Howard-Jones also observed that many nations, with Britain as the prime example, were unwilling until the later 19th century to enter into international agreements which they believed would limit their political and economic freedom of action.[74]

[72] Javed Siddiqi. *The World Health Organization and the U.N. System (*Columbia: University of South Carolina Press, 1995)18.
[73]Cummings, "The international Sanitary Conference," 975-976.
[74]Howard-Jones, "The Scientific background of the International Sanitary Conferences 1851-1938," 11.

The PASB and the OIHP

By the beginning of the 20th century, cooperation between nations on health- related issues had continued to evolve to the point where permanent organizations were created as part of transnational agreements to reduce the spread of transmissible diseases.[75] The advances in medical and scientific knowledge provided for more effective international prevention and treatment efforts, and the use of the telegraph as well as the radio allowed rapid dissemination of information regarding disease outbreaks. The funds to support the budget of these organizations were contributed by the countries that had signed on to the agreements, and permanent staff was employed to carry out the assigned missions. The structure and function of these nascent transnational organizations would serve as the paradigm for the Health Section of the LON when it was created in 1924. As such, it is instructive to review not only how these new organizations contributed to the development of the discipline of public health, but also how they facilitated transnational cooperation.

The two most important permanent organizations formed just after the turn of the century were the Pan American Sanitary Bureau (PASB), and the Office of International Hygiene Publique (OIHP).[76] These two transnational bodies reflected the new level of understanding and agreement between nations, and the willingness to participate in international organizations based on scientific consensus and commitment to the improvement of public health .[77] The primary impetus for the creation of the PASB was the desire on the part of the United States to reduce the risk for the recurrent pandemics of yellow fever. This viral disease, spread by infected mosquitos, was first introduced into the U.S. in the late 17th century by ships that arrived from

[75]Bolivar Lloyd, "The Pan American Sanitary Bureau," *American Journal of Public Health,* 9 (1930) ,925.

[77] Akira Iriye, Global Community, *The Role of International Organizations in the Making of the Contemporary World.* (Berkley: University of California Press, 2004), 43.

endemic regions in Africa. Over the next two hundred years yellow fever killed tens of thousands of people in the major East coast port cities of Boston, New York, Baltimore, and Philadelphia.[78] In the summer of 1853, the city of New Orleans was so severely affected that nearly 10% of the residents of the city died as a result of the yellow fever pandemic.[79] Epidemic outbreaks continued in South and Central America, Cuba, and New Orleans during the second half of the 19th century.[80]

The PASB was founded in Washington in 1902, as a permanent body with officers and members of the Directing Council elected from all the countries of North and South America, and supported by contributions from member states in relation to their respective populations.[81] The organization was given a permanent home in Washington, D.C. in 1908 when land was donated by the U.S government and a new headquarters building was constructed for the Pan American Union with $150,000 donated by the Pittsburgh industrialist Andrew Carnegie.[82] The Council agreed to hold a formal meeting every two to four year to discuss how to control epidemics of yellow fever and resolve other sanitary problems that impacted the Western Hemisphere at large. In a review of the evolution and accomplishments of the organization written in 1930, Dr. Bolivar J. Lloyd, then Director of the U.S. Public Health Service noted that the PASB had the distinction of being the first permanent Non-Governmental Organization (NGO) of its kind that had a director, and a cadre of professional employees responsible to the organization and not to the member nations.[83] He argued that prior transnational efforts such as

[78] John *Staples, Ted Monath."*Yellow fever: 100 years of discovery,*" The Journal of the American Medical Association 300 (2006) 960–2.*
[79]John *Staples, Ted Monath. "*Yellow fever: 100 years of discovery, *960–2.*

[80]John *Staples, Ted Monath "*Yellow fever: 100 years of discovery,*960–2.*
[81]Bolivar Lloyd, "The Pan American Sanitary Bureau," 925-926.
[82]"Hall of Americas For Arms Meeting," New York Times August 27, 1921.
[83]Bolivar Lloyd, "The Pan American Sanitary Bureau," 925-926.

the international sanitary commissions were often limited by a self-serving objection of a single country. The PASB, as an independent body, could reach policy decisions based on scientific knowledge and current information that would benefit members at large. In his essay, Dr. Lloyd concluded that as a career public health officer, he viewed the PASB as an important step forward in the protection of the public health and a paradigm for the Health Section of the LON because, through international agreement it fostered " a better understanding between the health authorities of the republics of America, thereby removing the necessity for the drastic quarantines which were so common during the nineteenth and early part of the present century, and in the extermination of quarantinable diseases in many ports where such diseases were formerly endemic."[84]

At the 1905 meeting, the PASB member states approved an agreement referred to as the Washington Convention, which established a mechanism for epidemiological surveillance, and standardized international quarantine procedures throughout the Western Hemisphere. In his remarks at the close of the meeting, U.S. Surgeon General Walter Wyman provided an example of the importance of the Washington Convention meeting when he noted that, " a few years ago, a violent epidemic of yellow fever in Cuba would have excited no more than a passing notice, but now one or two cases anywhere on the littoral of our Western Hemisphere would be immediately communicated to the United States and other countries."[85] From the formation of the organization until its absorption into the WHO in 1948, the PASB served as an effective clearinghouse for the collection and distribution of sanitary information to and from the nations of the Americas. It facilitated the dissemination of current and accurate information regarding

[84]Bolivar Lloyd, "The Pan American Sanitary Bureau," 927.
[85]Transactions of the Second International Sanitary Convention of the American Republics: held at the New Willard Hotel, Washington, D.C., October 9-14, 1905.

epidemics and public health issues between member states and countries in Europe and Asia.[86] The organization provided educational program for public health officials throughout Latin America, and often sent designated representatives to visit and confer with the sanitary authorities of the various signatory governments on public health matters.

In addition to these personal interactions between health officers of the member countries, telegraph lines and the new technology of radiotelegraphy were used to disseminate important data. Updates on the projects and educational activities of the organization, as well as the reporting of research results and other relevant information was reported through the Pan American Sanitary Bulletin, a monthly journal published in English, Spanish, Portuguese, and French, and circulated throughout the American states.[87]

The OIHP was created at the Tenth Sanitary Convention held in Paris in December 1903. This meeting, attended by representatives of the European nations, the U.S., the Ottoman Empire, Persia, and Egypt produced several tangible results. The agreement to organize the OIHP addressed the need to create a mechanism for the surveillance and international notification of outbreaks of cholera, yellow fever, plague, and smallpox. There were modifications regarding the rules for the quarantine of ships and passengers, and a recognition that cargo itself could not transmit these diseases unless contaminated by human waste or other infectious materials. The signatories to the convention agreed that ships traveling to international ports with more than a specific number of passengers aboard would be required to have a physician as part of the crew, carry steam sterilization equipment to deal with infected fomites in route, and would have the ability to eliminate a rat infestation prior to arrival at the intended port. The accord also contained a detailed and extensive agreement relative to the inspection of

[86] Markel, "Approaches to Global Health:1851 to the Present," 127.
[87] Lloyd, "The Pan American Sanitary Bureau," 927.

shipping in the Red Sea enhanced international efforts to reduce of the spread of infectious diseases during the annual Haj to Mecca.[88]

Article 181 of the treaty of the Tenth Sanitary Convention specified that at the request of the French government, OIHP, would be headquartered in Paris, and operate according to the principles that governed the International Bureau of Weights and Measures.[89] As the host of this new organization, the French authorities were given the responsibility to write the regulations and procedures under the guidelines set forth by the 1903 Sanitary Convention. The treaty specified that, "the main object of the OIHP was to collect and bring to the knowledge of the participating States, facts and documents of a general character concerning public health and infectious diseases as well as the measures to check these diseases."[90] Each country had one delegate on the advisory board although the British and French were ultimately given a second delegate due to their colonial possessions.[91] The PASB provided the inspiration for the organizational structure of the OIHP, and it continued to operate until 1948 when its epidemiological surveillance role was assumed by the World Health Organization (WHO).

For the first twenty-five years, the OIHP was directed by career diplomat Sir George Buchanan, who was Britain's primary representative for international public health related activities between 1903 and his death in 1933.[92] Buchanan would also serve as the Vice Chairman of the League of Nations Health Committee and would be influential in the formation of the Health Organization. Many of the delegates to the OIHP were public health experts, although some, like Buchanan, were career diplomats without a medical or scientific

[88]United States, Senate. International Sanitary Convention. www.congress.gov/35/770/treatyseries466.
[89]United States, Senate. International Sanitary Convention. www.congress.gov/35/770/treatyseries466.
[90]United States, Senate. International Sanitary Convention. www.congress.gov/35/770/treatyseries466.
[91] Akira Iriye, Global Community, *The Role of International Organizations in the Making of the Contemporary World,* 43.
[92]Patricia Sealy. "The League of Nations Health Organization and the Evolution of Transnational Public Health." PhD diss., The Ohio State University, 2011 33.

background.[93] At the regularly scheduled meetings, the representatives presented and discussed reports on national health information as well as potential alterations to the existing sanitary conventions. Despite the budget of 150,000 French Francs per annum specified in the founding document, few of the members paid their dues on a regular basis, or any at all, and the organization was chronically short of operating funds.[94]As a result of the lack of funding, the OIHP was only able to maintain a small permanent staff at the headquarters in Paris. This staff collected and distributed disease notifications to member countries as required by the 1903 agreement through the publication of a monthly bulletin, that also provided information about new laws and regulations promulgated in various jurisdictions, progress against infectious diseases, sanitation work in different localities, and statistics concerning public health.[95] The OIHP's international efforts were limited solely to the dissemination of information and focused their efforts primarily on European issues. The organization did not perform any field work or provide any assistance to countries related to public health projects.

Some public health advocates were initially unenthusiastic that the role of the OIHP would be limited to the collection and dissemination of epidemiological data and not actual field work. Over time, the organization gained respect for its universality, strong political status, and the clear relationship between delegates and government. This partnership allowed the OIHP to carry out its function to distribute information but not interfere with the work of sovereign governments. It was the limited role played by the OIHP that was, "reflective of the pre-World War I assumptions about international cooperation"[96] The Health Section of the League of

[93]Patricia Sealy, "The League of Nations Health Organization," 28.
[94]Siddiqi, *World Health and World Politics,* 64.
[95]Siddiqi, *World Health and World Politics,* 64.
[96] Siddiqi, *World Health and World Politics,* 64.

Nations would operate with a new paradigm during the inter-war period, that allowed for a hands-on, cooperative approach with member states.

From the time of the First International Sanitary Convention in 1853 to the outbreak of the Great War in August,1914, the nations of Europe and the Americas accomplished a great deal relative to transnational health cooperation. Significant progress had been made in the identification of the etiology of the common epidemic diseases. Additionally, agreements had been reached between international partners as to how best to prevent the spread of these conditions and protect the public health. Despite these positive changes, the official position of most of the European governments continued to be that the role of international organizations should be limited to the collection and dissemination of information, and that public health projects were best left to individual nations. In the aftermath of the Great War, this perspective would change and the work of the Health Section would proceed with the idea that transnational projects could be supported and carried out in such a way as to complement and not threaten national sovereignty.

CHAPTER II: THE LEAGUE OF NATIONS HEALTH ORGANIZATION 1919-1939

"*Health measures should be viewed as international security measures, whether it be a question of adopting preventative means to combat contagious or epidemic diseases, or of popularizing methods of cure and treatments. The League should be involved be involved in these endeavors*." Report on the creation of an International Health Bureau Within the League of Nations, 1920.

The advances in scientific knowledge and the rise of the internationalist movement over the period 1850-1914 were pivotal factors in the evolution of transnational efforts to address the frequent disease pandemics. I will argue in this section that after the Temporary Epidemic Commission led the successful campaign against typhus in eastern Poland and the western Soviet Union between 1919-1921, improving the state of health throughout Europe and Asia became an integral part of the security mission of the LON. The chapter will demonstrate that because the Soviet government refused to work with the Western powers in the years after the Great War, the existence of an international and apolitical health organization was critical to the success of the typhus eradication program, and the amelioration of the famine in the Soviet Union and the Ukraine. The chapter will also show that the development of a worldwide epidemiological intelligence apparatus and an international public health infrastructure by the LONHO under the leadership of Dr. Ludwig Rajchman created a lasting legacy of transnational health related cooperation that continues to the present day.

This chapter argues in support of the views expressed by the highly respected historian of the LON, Susan Pedersen who has noted that despite a short existence, the League of Nations expanded its involvement in international affairs well beyond what the founders had anticipated in 1919.[1] In her book, *The Guardians, The League of Nations and the Crisis of Empire,* she commented on the ways that the sections and commissions including Mandates, Minorities, Drug

[1]Susan Pedersen. The Guardians; The League of Nations and the Crisis of Empire (Oxford: Oxford University Press, 2015) 5-6.

Trafficking, and Women's Issues played essential roles in the LON's transformation into an agent of profound and lasting geopolitical transformation in Europe. Interestingly, Pedersen did not devoted a great deal of her scholarship to the work of the Health Section, or role of Dr. Rajchman as a justification for her revisionist rejection of the theses of historians such as George Scott who argued that LON was a failure because "the institution that was supposed to end war, tragically failed to do so."[2]

Pedersen, Iris Borowy, and Mark Harrison have rejected the so-called "decline and fall narrative" of the LON and approached the League's legacy from a different perspective.[3]These scholars have all argued that prior to the 1990s, many of the important and successful activities carried out by the League had never previously received adequate study. Their work led to a series of new publications that encouraged historians, "to look at the League with new eyes and appreciate how complex and consequential this first great experiment in international government really was."[4]

Iris Borowy reported on the work of the Health Section in *Coming to Terms with World Health: The League of Nations Health Organization, 1921-1946* and noted that when the League Assembly approved the organization of a dedicated health section, the representatives of the member states could not have predicted that the HS would become one of the League's most capable vehicles, to further the process of what we might call internationalization, the process by which functions are displaced from the national and into the international realm."[5] Medical historian Paul Wiendling argued that the accomplishments of the Health Section

[2] Susan Pedersen. The Guardians, 5-6.
[3] Susan Pedersen. The Guardians, 10.
[4] Susan Pedersen. The Guardians, 13.
[5] Iris Borowy. *Coming to Terms with World Health: The League of Nations Health Organization, 1921-1946* (Frankfort: Peter Lang, 2009) 12.

between 1919-1938, justifies why the LONHO remains historically relevant and deserving of ongoing study.[6] Wiendling pointed out that the HS, under the leadership of Ludwig Rajchman permanently altered the long-standing disease paradigm of race and heredity as the sole determinants of an individual's health. He argued that the work of the HS proved that environmental and physical surroundings played a more significant role and that the development of public health infrastructure based on scientific knowledge played a major role in disease reduction and overall wellbeing. Wiendling pointed out that the accurate collection and interpretation of scientific data coupled with the advances in the understanding of disease causation and mechanisms of spread demonstrated the value of public health measures and preventive medicine to the international community.[7] The legacy of the Health Section extended beyond the formal demise of the LON in 1946, and the public health programs initiated during the inter-war period continue to impact the current activities of the World Health Organization (WHO).

The Impact of The Great War on Epidemic Disease and International Cooperation

While the OIHP in Paris continued to function and collect information about disease outbreaks and war-related morbidity and mortality, all coordinated international health efforts ceased in August 1914 and were suspended for the duration of the Great War. In the aftermath of the Armistice, reports from German and Allied armies confirmed that a total of ten million soldiers and tens of millions of civilians had died during the four years of conflict.[8] What was not

[6] Paul Weindling. *International Health Organizations and Movements, 1918–1939* (Cambridge: Cambridge University Press, 1995) 14.
[7] Ibid, 16-17.
[8]Alexandra Stern "International Efforts to Control Infectious Diseases, 1851 to the Present." *JAMA* 292, no.12 (2004): 1474-1479.

widely appreciated in the immediate aftermath of the carnage was that epidemic diseases had actually claimed more lives than the fighting between the Central Powers and the Allies, particularly on the Eastern front.[9]

Beyond the horrors of the four years of combat, the opposing armies had to contend with the frequent outbreaks of infectious diseases. The deprivations associated with life in the trenches such as the lack of proper sanitation, exposure to contaminated water, and the inability of soldiers to attend to personal hygiene facilitated the spread of infectious disease among the troops on both sides of the line. The diseases included epidemic typhus, cholera, typhoid fever, and influenza. Typhus was of particular concern during most of the war particularly on the Eastern Front, because it was highly contagious and once an outbreak was established took many soldiers off the line quickly with high fevers, rash, respiratory failure, and delirium.[10]

Typhus had been known to cause human disease for centuries and associated with the movement of large groups of people. The disease was brought from endemic areas of North Africa to the Iberian Peninsula by invading Muslim troops during the siege of Granada,1489 to 1492.[11] A definitive description of the signs and symptoms of epidemic typhus came from the Italian States in 1546 in a periodical, “De Contagion," written by Italian physician Fracastoruis. He described a life-threatening disease with a petechial rash that appeared four to seven days after the onset of fever, accompanied by headache, mental status changes, stupor, and delirium, and in many cases, death.[12] In his book*, Typhus and Doughboys*, medical historian Alfred Cornebise noted that throughout history, outbreaks of epidemic typhus are believed to have decimated entire armies and determined the outcomes of important battles. The most notable

[9] Alexandra Stern "International Efforts to Control Infectious Diseases, 1851 to the Present, 1474-1479.
[10] Alexandra Stern "International Efforts to Control Infectious Diseases, 1851 to the Present, 1474-1479.
[11] David Patterson "Typhus and Its Control in Russia, 1870-1940." *Medical History* 37, no.4 (1993): 361-81.
[12] Alexandra Stern. "International Efforts to Control Infectious Diseases, 1851 to the Present." 1474-1479.

example he cited was Napoleon's Russia Campaign when typhus was believed to have killed over 50% of French troops during the retreat from Moscow.[13] In 1909, French physician, Charles Nicolle, established that typhus was a transmissible infection with the human body louse as the vector. Shortly after that, German bacteriologists Ricketts and Wolbach identified the infectious agent as a bacterium that proliferated in the human intestine and gut of human louse and was spread from person to person by the common body louse.

It was understood by 1914 that typhus epidemics were associated with poor hygiene, winter weather, overcrowding, and displacement of large numbers of people by war or natural disaster. Coordinated measures such as control of lice using insecticides and burning of infected clothing interrupted the spread of the disease and lessened the risk for morbidity and mortality associated with typhus infections.[14] During the Great War, the crowded and unsanitary conditions of the trenches, as well as the continued use of contaminated clothing and bedding, created the perfect conditions for the rapid and uncontrolled spread of typhus. While all combatant forces were affected, the morbidity and mortality on the Eastern Front was far worse than in the West because the Russian Army lacked adequate sterilization equipment, insecticides, and supplies of vaccines, which were necessary resources to minimize the spread of epidemics.[15]

During the years of fighting on the Eastern Front, the men of the German Army suffered fewer serious outbreaks of epidemic typhus than the other armies because of the availability of field equipment that could sterilize infected fomites and eliminate lice.[16] Russian forces did not have commensurate capability, and typhus decimated the Czar's army. The German medical

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[13] Alfred Cornebise. *Typhus and Doughboys: The American Polish Typhus Relief Expedition,1919-1921.* (Newark: University of Delaware Press, 1982) 7-8.
[14] Alfred Cornebise. *Typhus and Doughboys: The American Polish Typhus Relief Expedition,1919-1921*, 8.
[15] Alfred Cornebise. *Typhus and Doughboys: The American Polish Typhus Relief Expedition,1919-1921,* 8.
[16] David Patterson "Typhus and Its Control in Russia, 1870-1940." 361-81.

services had efficiency organized and carried out successful efforts to limit the spread of typhus in occupied Poland and Russia. Between 1914-1918 in the areas of the Eastern Front not occupied by the German Army, there were an estimated thirty million cases of typhus, cholera, malaria, tuberculosis, and relapsing fever, and over three million deaths. These epidemic diseases spread rapidly when the Russian Army collapsed during the winter of 1917-1918, which initiated a chaotic eastward movement of tens of thousands of soldiers and civilians, many infected with typhus, and attempting to return to their homes.[17] When German forces withdrew from the Eastern Front and occupied Poland after the armistice in November 1918, they removed most of their delousing equipment which the Polish government had hoped to utilize against the epidemic outbreaks.[18]

The Polish Government and the Typhus Emergency 1918

The medical services of the newly reconstituted Polish state did have some resources and a plan to address the typhus epidemic and prevent the spread of the disease from Russia. The construction of extensive quarantine and delousing facilities at strategic points such as Baranovitchi near Brest and Vilnius in Lithuania limited border crossings by infected individuals from the Soviet Union into Poland.[19] It was the goal of the medical and military personnel that operated these border crossing points to have everyone entering Poland from the east examined for infectious disease and deloused. The Polish authorities also founded a State Institute of Hygiene (SIH), which centralized the national response to these epidemic diseases and placed it under the leadership of physician and bacteriologist Dr. Ludwig Rajchman.

[17]David Patterson "Typhus and Its Control in Russia, 1870-1940." 361-81.
[18] David Patterson "Typhus and Its Control in Russia, 1870-1940." 361-81.
[19] Marta Balinska. *For the Good Of Humanity: Ludwig Rajchman Medical Statesman.* (Budapest: Central University Free Press, 1998) 41-45.

Rajchman had been trained in bacteriology in both Paris and London and had developed an expertise in the diagnosis and management of typhus. He immediately devoted much of the resources and personnel dedicated to the new SIH to the improvement of laboratory bacteriological techniques, and expansion of knowledge relative to the understanding of the epidemiology of the typhus, cholera, and influenza. New treatment schemes were developed, and public health programs devised to reduce the spread of typhus. These efforts included delousing and fumigation of people crossing into Poland from the Soviet Union and the Ukraine, vaccination against cholera, improvements in sanitation infrastructure, and distribution of literature for public education.[20] Medical resources within the new Polish state were however inadequate to address the massive typhus epidemic and by the beginning of 1919 there was concern that the disease might spread to Western Europe. The Polish government was in immediate need of assistance and reached out to future U.S. President Herbert Hoover, who at the time directed American relief efforts in Europe. Hoover received permission from President Wilson to lend the Poles medical equipment and supplies left behind by the Allied armies and to transport them to Warsaw along with a detachment of 500 American troops to assist the Polish authorities with delousing and other anti-typhus measures.[21] Assistance was also provided by the American Red Cross, and the Joint Jewish-American Distribution Committee, and the Polish-American Society. The short-term assistance rendered by the U.S. Army was unprecedented and allowed the Polish government to continue the anti-typhus efforts while negotiations were underway with the League of Nations for a more comprehensive aid package.

Despite these efforts, the number of cases of epidemic disease, particularly typhus, continued to spread into Poland from the Russian side of the border. The Soviet authorities were

[20] Marta Balinska. *For the Good Of Humanity: Ludwig Rajchman Medical Statesman,* 48-50.
[21] Alfred Cornebise. *Typhus and Doughboys: The American Polish Typhus Relief Expedition, 1919-1921*, 35-37.

both unwilling and lacking in resources to effectively prevent the spread of typhus across the border into Poland, and limited their efforts to shaving the heads of people exposed to typhus and treating their bodies and belongings with kerosene in an attempt to kill lice.[22] The situation deteriorated further due to the hostilities between Polish forces and the Red Army between February and October 1919, which limited the effective use of the border facilities on the Polish side. The fighting created tens of thousands of civilian refugees who fled across the Polish border to escape the fighting, overwhelmed the existing medical infrastructure, and exacerbated the spread of epidemic disease in Eastern Poland.[23]

At the beginning of 1920, the Polish government, represented by Prime Minister Paderewski and Dr. Rajchman, went to Geneva, and presented the League of Nations with a formal request for assistance in the form of medical expertise and supplies to combat the epidemic. The Prime Minister argued that if assistance was not forthcoming from the League, typhus would invariably spread to Western Europe."[24] Prior to the request to the LON, the Polish government had appealed for aid from the League of Red Cross Societies (LRCS). The LRCS had dispatched a medical mission to Eastern Poland early in 1919 to survey the status of the typhus epidemic. The group sent to Poland included Colonel Hugh S. Cumming, of the US Public Health Service, George Buchanan of the British Ministry of Health, and Lt-Colonel Castellani of the London School of Tropical Medicine.[25] The mission report confirmed the dire state of the epidemic in Poland and the lack of adequate resources to deal with the emergency. Nevertheless, the LRCS claimed that they lacked the resources or the jurisdiction to offer large scale aid to the Polish

[22] Alfred Cornebise. *Typhus and Doughboys: The American Polish Typhus Relief Expedition, 1919-1921,* 54.
[23] Alfred Cornebise. *Typhus and Doughboys: The American Polish Typhus Relief Expedition, 1919-1921*, 58.
[24] Alfred Cornebise. *Typhus and Doughboys: The American Polish Typhus Relief Expedition, 1919-1921*. 58.
[25] "Typhus in Poland." Report of the Inter-Allied Commission." *BMJ* 2, no. 3070 (1919): 565-567.

government.[26] Although some at the League did not believe that the situation in Poland was a dire as presented, the report written by the LRCS was persuasive in terms of the risk of the westward spread of the disease. The appeal for help to the newly organized League became an early example of how a health emergency had the possibility to seriously undermine European security.

When the Polish delegation was in Geneva, League officials were looking to appoint a qualified physician to direct the response to the typhus epidemic. Dr. Norman White of the British Ministry of Health recommended Dr. Rajchman for the post because of his experience leading the SIH in Warsaw, and his training and clinical expertise in the disciplines of tropical medicine and of epidemic diseases. In his notes written after he had met with Rajchman, Eric Drummond, Secretary-General of the League, noted that he believed Dr. Rajchman to be a person uniquely qualified to lead the League's effort against typhus.[27] Rajchman's socialist inclinations as well as his favorable attitude toward the Soviet Union were well known and viewed in a positive light by League officials who understood that the cooperation of the Soviet health officials was critical if the typhus epidemic was to be controlled. It was hoped that his involvement as Medical Director would help to project the image of the League as an organization for all nations regardless of political philosophy and would encourage the Soviet Union to participate in the typhus eradication efforts.

The Polish government's formal request for assistance received a positive response from Drummond, who agreed to commit League resources and personnel to assist the Polish health services. He had read the report written by the International Committee of the Red Cross (ICRC) and understood the extent of the typhus outbreaks in the eastern section of the newly independent

[26] Typhus in Poland." Report of the Inter-Allied Commission.", 565-567.
[27]Marta Balinska. *For The Good Of Humanity: Ludwig Rajchman Medical Statesman*, 68-69.

Poland, as well as a large part of the adjacent Soviet Union.[28] The information in the ICRC report had credibility because it came from observers on the ground in Eastern Poland. These individuals had made it clear that the scope of the crisis exceeded the means of local authorities or voluntary organizations to cope with it and that the situation constituted a health emergency that required immediate international assistance.[29] Although the League Assembly had voted to create a health section that could be called upon to address a request such as the Polish entreaty for help, there was not yet a formal health bureaucracy in place or personnel on hand. Also, the epidemic issues existed on both sides of the Polish-Russian border, and even after the conclusion of the fighting in 1921, Soviet authorities continued to be unwilling to work with the "western capitalist" nations to provide accurate information regarding health conditions Russia or accept assistance. Information obtained from refugees also determined that in addition to rampant infectious disease, much of Western Russia and Ukraine were affected by the famine, which increased the number of refugees that attempted to cross the Polish border.[30] Lastly, repatriation of the thousands of prisoners of war on both sides of the border could only proceed once they had been processed and found to be free of communicable disease.

Members of the OIHP, some of whom also sat on the League's Health Advisory Board and were also involved in the organization of the League's Health Section, raised concerns about direct international aid to Poland. Both George Buchanan and Hugh Cumming argued that that OIHP was the organization created explicitly by an international treaty in 1907 to coordinate world health and that the LON did not need to create a new section with a similar function.[31] The

[28] *Report of the Epidemic Commission of the League of Nations*, League of Nations Health Section, Geneva, 1921.
[29] *Report of the Epidemic Commission of the League of Nations*.
[30] Lois Borowy. *Coming to Terms with World Health: The League of Nations Health Organization 1921-1946.* (Berlin: Peter Lang, 2007) 55-57.
[31] Lois Borowy. *Coming to Terms with World Health: The League of Nations Health Organization 1921-1946,* 60.

Polish representatives pointed out however, that the OIHP was a group that limited itself to the gathering and reporting of epidemiological information, and did not provide the direct technical or material aid that was urgently needed to address the current health crisis. Despite the sentiment that the mission of the LONHO should be to provide direct assistance to members states to help them to address ongoing health problems, the minutes of the first two meetings of the Provisional Health Committee in April 1921, documented that League officials were wary of alienating the politically powerful OIHP.[32] In her book, *Coming To Terms with World Health: The League of Nations Health Organization 1921-1946*, Iris Borowy observed that British physician Normal White, Committee Chair as well as Ludwig Rajchman believed that it was also essential to work with the Paris based organization because the U.S., while not in the League, participated in the activities of the OIHP.[33] As American participation in international medical activities was essential, the political sensitivities of the time required that representatives of the OIHP be included in any LON effort to assist Poland and the Soviet Union.

In early 1921, the Secretary-General authorized the creation of a temporary Epidemic Commission to travel to Poland to evaluate the typhus situation, interface with the Polish health authorities, and advise the League as to how the organization should respond to the health crisis. Despite the requests for immediate aid, it was decided that the manner of League assistance to Poland would not be formalized, " until after the members of the Epidemic Commission had had an opportunity of seeing what had already been done in Poland and Lithuania."[34] The creation of an Epidemic Commission was significant because it was the first transnational health group ever

[32] "Provisional Health Committee, Minutes of the First Session" August 21-235, 1921 LON archives C.268 M.215.1981 VI.
[33] Lois Borowy. *Coming To Terms with World Health: The League of Nations Health Organization 1921-1946,* 77-80.
[34] "Report of the Chief Commissioner of the Epidemic Commission." June 6, 1921. League of Nations Archives C.91(a). m.50(a).IV.

constituted and sent to assess the need for medical aid in a sovereign state. The Commission members included Drs. White and Rajchman as well as Dame Rachel Crowdy from the League, Prof. Theodore Madsen from Denmark who represented the OIHP, and officials from the International Committee of the Red Cross.[35]

The members of the Commission remained in Poland from April 15-21 1921, and during that time inspected quarantine and delousing stations for civilians as well as military facilities in Warsaw, Baranovitchi, Lida, and Vilnius that processed both, " Bolshevik prisoners on their way from concentration camps in Poland as well as Polish prisoners of war returning from Russia."[36] In his role as a member of the Epidemic Commission, Rajchman observed that the system he helped to organize in 1920 was effective but inadequate for the number to be processed but that, "each returning prisoner or emigrant went through a process of delousing and quarantine and had fresh underwear issued to him thereby safeguarding to some extent the health of the country to which he is proceeding."[37]

During the final meeting with Polish officials in Warsaw on April 21, the members of the Epidemic Commission expressed their admiration for the work of the health service and the efforts to contain the typhus epidemic. They agreed that despite the relatively modest resources available, the League should "supplement to the extent feasible the work at present being carried out by the Polish government."[38] A commitment was made by Dr. White on behalf of the League for the immediate delivery of fifty mobile field hospitals each with fifty bed capacity. These field hospitals, along with the necessary clothing, soap, foodstuffs, medical supplies, trucks, and ambulances worth about 120,000 Swiss Francs where to be delivered to the Polish Epidemic

[35] "Report of the Chief Commissioner of the Epidemic Commission." June 6, 1921.
[36] "Report of the Chief Commissioner of the Epidemic Commission." June 6, 1921.
[37] "Report of the Chief Commissioner of the Epidemic Commission." June 6, 1921.
[38] "Report of the Chief Commissioner of the Epidemic Commission." June 6, 1921.

Commissariat and used at the discretion of the Polish government.[39] The members of the Commission also reported their unanimous decision that further expenditure of League funds should "as far as possible be made in a way best calculated to further the continued development of the health organizations of Poland."[40]

The budget of the LON came almost entirely from the dues paid by member states, and the majority were commonly in arrears. As a result, funding for large public health projects such as the work in Poland and later Russia was inadequate. In order to obtain adequate support for the continuation of the work in Poland, Drummond made additional appeals to member states at the end of 1921, and also to the International Committee of the Red Cross and the League of Red Cross Societies but these requests failed to raise the necessary funds.

During the Spring of 1922, Rajchman, as part of his search for additional financial resources, requested support from Wycliffe Rose, European Director of the International Rockefeller Foundation which was based in New York City. Rajchman was able to convince Rose and the Board of the Rockefeller Foundation that not only were the current anti-typhus efforts worthy of support, but that Fountain should also invest in the future activities of the LONHO. From the perspective of the Foundation, the correspondence between Rose and Rajchman made it clear that the Board preferred to provide substantial sums of money to support the activities of League as a transnational organization, rather than compete with other groups such as the Red Cross.[41] Over the next fifteen years, the Rockefeller Foundation provided millions of dollars of support for the international meetings, educational and training programs, physician exchanges and research projects sponsored by the Health Section. Rajchman's letters to Rose, as well as his

[39] "Report of the Chief Commissioner of the Epidemic Commission." June 6, 1921.
[40] "Report of the Chief Commissioner of the Epidemic Commission." June 6, 1921.
[41] "Correspondence between the Hygiene Section and the Rockefeller Foundation" June 28, 1922. League of Nations Archives, Geneva C.435.M.300.1922.III.

frequent reports to the League Assembly, made it clear that without this assistance, many of the activities and programs supported by the LONHO would not have been possible.

Once the League accepted the recommendation of the Epidemic Commission to support Polish efforts to combat typhus, the next priority for the Commission was to establish a collaboration with the Soviet health authorities. Rajchman, in his October 1921 report on the activities of the Health Committee noted that the collaboration with the Polish health services had significantly reduced the spread of typhus within Poland. He pointed to the need to maintain these measures and extend them to border states, particularly Russia because, "of the grave risks which may be run by the spread of typhus from parts of Russia particularly those now affected by famine."[42] Rajchman made it clear in his report that as long as typhus and cholera existed in Russia, these diseases would continue to spread. He noted that it was crucial for representatives of the Health Committee to "go to Russia and convince the new regime to accept Western aid and take the essential sanitary measures."[43]

There were several challenges to be overcome before an official visit to the Soviet Union could be arranged. The problem was not that the Soviet health authorities did not recognize the dangers of typhus, cholera, and other epidemic diseases. As early as 1919, Lenin had noted that " typhus could prove to be such a catastrophe that it would be impossible for us to undertake any socialist development whatsoever, and either the louse will defeat socialism for socialism will defeat the louse."[44] The most critical problem was that because of the anti-Soviet political climate of the early 1920s, the Soviet government would not work with any of the Western democracies nor accept aid regardless of need. It was not until July 1922 when Russian poet

[42]"Report on the work of the Health Committee of the League of Nations," January 6, 1922. League of Nations Archives. C.M.8.2.1922.III
[43] Report on the work of the Health Committee of the League of Nations," January 6, 1922.
[44] Marta Balinska. *For the Good of Humanity: Ludwig Rajchman Medical Statesman*,50.

Maxim Gorky publicly revealed the extent of the Russian famine and the five million starvation deaths that had occurred in the prior year that the government reluctantly signaled that it might accept certain types of international assistance.[45]

On behalf of the U.S. government, Herbert Hoover was the first to agree to send supplies and personnel to the Soviet Union. Other humanitarian organizations were also willing to provide aid, but the political sensitivities of the situation and the massive scope of the distribution of food and medical supplies required coordination. The Soviets had initially refused to work with relief organizations at that point in time, but the health situation in Western Russia was so critical that the government agreed to an official visit from two members of the Epidemic Commission. The Commission Chairman Dr. White and Medical Director Dr. Rajchman were appointed to travel to Moscow to discuss cooperation in health matters.

Regardless of Soviet hesitation to begin official interactions with the League, White and Rajchman were permitted a six-day visit Moscow in October 1921. In his report that summarized the trip, Rajchman described conditions in Moscow and throughout Russia as "rivaling the great plagues of the Middle Ages at their worst with at least 2,500,000 deaths between 1918-1920."[46] He noted that in addition to rampant typhus and other epidemic conditions, they had been informed that thirty million people had been affected by the famine in Western Russia and the Ukraine, and that if not ameliorated, "additional millions would be doomed to death by starvation."[47] Rajchman's report complemented the work of the Soviet heath authorities and the efforts to combat the typhus epidemic. His positive comments about the Russian medical establishment led to accusations by Buchanan, Deputy Secretary General Joseph Avenol and

[45] Marta Balinska. *For the Good of Humanity: Ludwig Rajchman Medical Statesman,* 51.
[46] Correspondence between the Hygiene Section and the Rockefeller Foundation" June 28, 1922. League of Nations Archives, Geneva C.435.M.300.1922.III.
[47] Correspondence between the Hygiene Section and the Rockefeller Foundation" June 28, 1922.

prominent British MPs such as Winston Churchill that Rajchman was unalterably pro-Soviet.[48] In response to this criticism that would be repeated frequently during his tenure at the League, Rajchman never denied that he was a socialist but always maintained that he was "not blind to the Soviet system's defects."[49] He also argued consistently that the Health Section and the League would only be effective if they remained above politics and committed to social justice and the improvement of international health regardless of a particular nation's political system.

While in Moscow, White and Rajchman met several times with Health Commissar Nikolai Siemachko, a close friend of Lenin, as well as Professor Vladimir Tarassevitch, who provided the League representatives with specific data regarding the number and location of cases of typhus, relapsing fever, and cholera in the Soviet Union. They were permitted to visit sanitary facilities, children's hospitals, and cleansing stations throughout the city. Tarassevitch acknowledged to his visitors that data available to him likely underestimated the actual number of cases of epidemic disease throughout Russia but that he believed that there had been at least 15-20 million cases of typhus in Russia in between 1919-1921 with a significant increase since 1920.[50] He also reported data on millions of cases of tick-borne relapsing fever, cholera, and typhoid fever, which had affected the same regions of Western Russia as the famine. As Rajchman and White toured the medical and sanitary facilities in Moscow, it became clear that beyond food aid, the Russians needed drugs of all kinds such as quinine to treat malaria and necessary medical supplies such as syringes and soap. While in Moscow, Rajchman and White obtained the agreement of the People's Commissary of Health for the regular exchange of

[48] James Barros. *Betrayal from Within; Joseph Avenol, Secretary-General of the League of Nations, 1933-1940* (New Haven: Yale University Press, 1969) 14.
[49] Marta Balinska. *For the Good Of Humanity: Ludwig Rajchman Medical Statesman*,51.

[50] "The Work of the Epidemic Commission of the League of Nations, Report of the Chief Commissioner Norman White, November 1921." League of Nations Archives, Geneva. C. 91(a). M.50(a). 1921.IV.

epidemiological intelligence with the Heath Commission of the League and the OIHP by a connected wireless network and to the publication of data for international use. Importantly, under League auspices, the Commission facilitated ongoing negotiations between the Soviet Union and Poland, and assisted with the conclusion of sanitary agreements that strengthened quarantine measures when needed and expanded the network of hospitals and disinfecting systems on both sides of the border. Lastly, by 1922, the LON had established a permanent presence in Moscow with the office of the High Commissioner responsible for coordinating international aid to the Soviet Union. It is noteworthy and accurate to suggest that the agreements reached between Poland and the Soviet Union would not have been possible without participation of the League. The health authorities of the LON were able to interface with their Soviet and Polish counterparts in an impartial manner that convinced both sides that cooperative efforts to control epidemic disease were in their national interests. League representatives such as Dr.Rajchman worked to minimize the effect of nationalism or international politics on multilateral negotiations. The approach to these early successes would serve as the paradigm that Rajchman and the Health Section of the LON to work with the national health authorities of member states to determine their public health infrastructure needs and then assist with the funding and implementation of local programs.

When the Epidemic Commissioners returned from Moscow, there was satisfaction that the essential elements of their mission had been accomplished. The veil of secrecy regarding health conditions in the Soviet Union had been lifted, and credible statistics had been made available to LON officials. By the middle of 1921, international attention had been directed to the health risks that affected millions in Russia, the Ukraine, and Poland, as well as the danger that, without a significant international intervention led by the LON, typhus would spread to Western Europe

along with the hundreds of thousands of people fleeing famine and disease. The League became the bridge for the vital contact established between the Soviet Union and the rest of the Europe, and the conduit for the ongoing exchange of information about epidemic diseases and other public health issues. This connection was established a decade before most countries provided diplomatic recognition of the Soviet Union or had any formal communication with the Soviet government.

Despite these multilateral achievements, the League did not possess adequate resources to fully implement the epidemic control and aid programs in Russia or the agreements between Poland and the Soviet Union. The lack of available funding placed these accords in jeopardy. In January 1922, the Secretary-General and the Heath Section issued a report to inform member states of the situation in Eastern Europe and once again requested additional financial support for these critical programs.[51] Shortly after that, on March 20, the Polish government with League endorsement hosted a meeting in Warsaw for 28 member countries to discuss the report and reach agreement on a plan for international cooperation in the control of epidemic disease. Members of the Health Section presented epidemiological data along with representatives from Poland, Russia, Ukraine, Turkey, and the Baltic States.

Several relevant agreements reached during the meeting and they reflected the perception of the League as a credible, international organization well suited to coordinate the response to international health-related problems. Unlike the sanitary conventions of the 19th century that had little practical success because of competing national interests, the attendees of the Warsaw conference developed consensus for both a strategic as well as a tactical approach to the medical crisis in Eastern Europe. Specifically, under League auspices, nations assented to provide for the

[51] "Memorandum of the Secretary-General on the Campaign Against Typhus." January 1922. League of Nations Archives, Geneva. C.381.M.271.1922. IV.

mutual exchange of epidemiological information and for the coordination of efforts, "defensive for the border zones and offensive for the central regions to attack the epidemics at their sources."[52] The leadership of the transnational efforts to prevent the spread of these epidemics was entrusted to the Health Section. In the first-ever appeal of its kind, Drummond requested member nations to contribute to a special fund to total $600,000 to supplement the resources of Poland, the Soviet Union, and the Baltic States and cover the costs of necessary equipment, supplies, and personnel.[53] While only about one-third of this amount was ever actually contributed by member states, what was unique was that the account was made up of international contributions, but controlled by the League as a transnational entity, and used at the discretion of Rajchman and the Health Committee in the most severely impacted countries.

The impact of typhus and cholera would continue to be felt particularly in the Soviet Union into the middle of the 1920s. However, by the end of 1923, the number of new cases of typhus, cholera, and relapsing fever had been significantly reduced. The collective efforts of the Poles, and the Russians, assisted by the Health Section of the League had contained the epidemics and prevented their spread into Western Europe. League sponsorship and coordination of international food assistance had also seriously reduced widespread starvation due to the famine in Western Russia and Ukraine. The leadership of the League and its direct involvement as an honest broker had facilitated the interaction of two countries that had recently been enemies and encouraged the Soviet Union to take its first tentative steps back into the international community. Over the objections of the Epidemic Commission, concerns about the ongoing

[52] "Health Conference at Warsaw, Report of the Secretary-General." March 1922. League of Nations Archives, Geneva.C.160.m.94.1922 III.
[53]Health Conference at Warsaw, Report of the Secretary-General." March 1922..

expenses of the relief efforts, and the perception that the necessary work had been completed, led to the decision by the League Council to discontinue the anti-typhus work early in 1924.

Permanent Status For The Health Section

In recognition of the important work of the Epidemic Commission and the Heath Advisory Committee since 1919, the League Assembly voted in 1923 to make the Health Section a permanent part of the bureaucracy of the LON.[54] Despite his strong opinion that the work of the Temporary Epidemic Commission in the Soviet Union should continue, Rajchman agreed to assume the position of Medical Director in the Health Section. Although a man of outspoken opinions, Rajchman understood the need to refrain from public disagreement with the League Assembly if he wished to keep his position in the organization. He would be able to maintain this low-profile behavior until the mid-1930s when he felt the need to speak out against the excesses of the Japanese and of Hitler and the Nazis, which contributed to his dismissal from his position with the League in 1939. Once the Health Section had attained permanent status within the LON, Rajchman and his colleagues proceeded to formulate a strategic plan that would determine priorities for the remainder of the decade. Part of this strategic plan was to select committed internationalists to serve as the members of the Health Section and the Health Advisory Board, and to maximize cooperation with pre-existing organizations such as the OIHP, the International League of Red Cross Societies and the International Labor Office. The Secretary-General, as well as the members of the Health Secretariat, appointed qualified scientists and administrative personnel intending to maximize transnational representation and international credibility. Appointments included the eminent scientist Theodore Madsen of Norway as Section Chairman, Sir George Buchanan of the UK as Vice-Chair, and M. Velghe, President of the ILO. Madsen

[54] "Scheme for The Permanent Health Organization Of The League of Nations." June 9, 1923. League of Nations Archives, Geneva. C.391.C.H.110.1923.III.

was an excellent choice for this position not only because of his excellent reputation as an epidemic disease researcher trained by Pasteur and Koch, but also the fact that he was also the president of the OIHP. Buchanan was a senior medical officer in Britain, and also a member of the OIHP. Madsen and Rajchman believed that the epidemiological surveillance function of OIHP should be merged with those of the League, but objections from the US prevented that action until 1934.

One of Rajchman's ongoing priorities for the Health Section after 1924, was to improve communication between Geneva and the health authorities of the various European nations. The Epidemiological Intelligence Service (EIS), which was created, administered, and funded by the League served as a vehicle to accomplish this goal. The purpose of the EIS was to collect health and infectious disease data from the medical authorities of member states, analyze the information provided, and distribute regular reports throughout the entire community. Initially, the accuracy of EIS reporting was limited by the different methods of data collection in member states and disparate definitions of morbidity and causes of mortality. During the 1920s, the U.S. who was a member of the OIHP but not the LON, also argued on numerous occasions that the European states should not support the development of the EIS because the OIHP was the only organization designated by the international treaty of 1907 to receive epidemic data from the signatory nations. Over the next decade, both organizations continued to collect epidemiological data independently. Unlike the OIHP that would simply collect and report the data, the Health Section would utilize the country specific information obtained and reported by the EIS to plan and execute public health projects with member states.

As part of his ambitious program for the Health Section, Rajchman proposed a League sponsored series of regularly scheduled medical education programs and research conferences to

be held throughout the year in Geneva, London, and Paris. He believed that these meetings would have an educational benefit for all nations and facilitate the exchange of information between medical scientists. It was Rajchman's hope that increased international interactions would lead to the creation of international standards for laboratory procedures, serum, and vaccines as well as the opportunity for translational research. These medical and scientific meetings began in 1922, and somewhat ironically featured the first official interactions since the end of the war between doctors from France and England with those from Germany and Austria.

From the beginning, the Health Section competed for funds with many other League operations and priorities. To meet its many obligations, which included funding all organizational operations, the International Criminal Court, and the International Labor Organization, the League was dependent on the payment of dues from member states. The total annual budget of the League never exceeded $6,000,000, and money was always short as many member nations were chronically in arrears relative to the payment of their dues. [55] Review of the annual minutes revealed that the League assembly never allocated more than 2.5% of the operations budget to the Health Section, and after 1933 this amount was reduced by 5% every year until 1939.[56]

In 1923, Madsen and Rajchman stirred considerable controversy because of their insistence on Germany's representation on the Health Committee. Madsen noted that "beyond the question of principle, the high level of German scientific research made its exclusion simply unthinkable."[57] It was necessary to overcome a great many objections primarily from the French and German sides before there was an agreement to have eminent German scientist Peter

[55]Lois Borowy. *Coming to Terms with World Health: The League of Nations Health Organization 1921-1946,* 90-91.
[56]Lois Borowy. *Coming to Terms with World Health: The League of Nations Health Organization 1921-1946*.
[57] Marta Balinska. *For the Good of Humanity: Ludwig Rajchman Medical Statesman*, 54.

Muhlens join the Health Committee and for Germany to attend League-sponsored medical meetings. Between 1922-1924, scientific and medical meetings under League auspices facilitated both professional and personal contacts between Germany, France, and the UK. British Prime Minister David Lloyd George noted in 1923 that these interactions were consistent with his decision, "to re-establish more or less normal relations among European states and concentrate on the continent's economic recovery."[58] Drummond's undersecretary Jean Monet of France, also a fervent internationalist, supported these heath related contacts and believed they helped to facilitate Germany's admission to the League of Nations in 1926.[59]

Rajchman's goals for the Health Section included expanding the work of the organization beyond the European continent. In 1925, the Health Organization agreed to a proposal by the Japanese representative, Dr. Miyajima Suke, to expand EIS to include the collection of epidemiological data from Asia and the Far East and report it along with the European data on a regular basis. The idea of extending data collection beyond Europe, and especially to Asia, was truly extraordinary and reflected to desire at least on the part of those at the Health Organization to transform the League into a truly global organization. One of the challenges to be overcome however was the question of how to pay for the epidemiological surveillance program, as well as all the proposed educational and training which required financial support beyond what was available from the League's annual operational budget.

Fortunately for the Health Section, Rajchman made the acquaintance of an American, Wycliffe Rose, who was the European Director of the International Health Commission of the Rockefeller Foundation based in New York. The Foundation had been started in 1913 by Standard Oil owner John D. Rockefeller, his son John D. Rockefeller Jr. and business and

[58] Marta Balinska. *For the Good of Humanity: Ludwig Rajchman Medical Statesman*, 59.
[59] Marta Balinska. *For the Good of Humanity: Ludwig Rajchman Medical Statesman*, 60.

philanthropic advisor, Frederick Taylor Gates. Before the First World War, the foundation set up the International Health Commission to support international public health work outside the US. The Foundation provided funds to expand the work of the international Sanitary Commissions both in Europe and Asia against various infectious and tropical diseases, funded clinical research on hookworm, malaria, and yellow fever, and established the paradigm of modern public health services. [60]

Rose had been in Warsaw on behalf of the Rockefeller Foundation to assist with the control of the epidemic disease emergency. He provided funds to procure medical supplies and vehicles for Rajchman and the Poles to assist their efforts to control the spread of typhus and cholera. When Rajchman agreed to accept the position of Medical Director of the Epidemic Commission and the Health Section of the LON, he again approached Rose for funds for the current and future international efforts. During the summer of 1922, the two men exchanged a series of letters between Geneva and New York, in which Rajchman outlined his proposed programs and budget for the Health Section and requested that Rose obtain support from the Board of the Foundation.

Wycliffe Rose was a strong supporter of transnational activities and hoped that if the American based Rockefeller Foundation invested heavily in European public health efforts, it would improve the chance that the U.S would ultimately join the LON. By the summer of 1922, the Rockefeller Board agreed to provide the Health Section of the League with $121,000 for the fiscal year 1922, and $200,000 annually through 1927.[61] The amount committed by the Foundation represented a major grant of funds for the time, and in present-day terms would be

[60] Correspondence between the Hygiene Section and the Rockefeller Foundation" June 28, 1922. League of Nations Archives, Geneva C.435.M.300.1922.III.
[61] Correspondence between the Hygiene Section and the Rockefeller Foundation" June 28, 1922.

equivalent to about fifteen million dollars over the five years of the agreement. What was even more remarkable was the fact that the Foundation gave Rajchman and the Health Section complete discretion in the use of these funds. The funds supported the Health Sections' epidemiological reporting service and the educational and research programs sponsored by the League as well as the setting up of reference laboratories throughout Europe and the Far East to standardize serum and vaccines. Unfortunately for the Health Section, Rose retired in 1923, and after 1927 support from the Foundation decreased in part because of the failure of America to join the League and the preference of the new Directors to support programs where the U.S. was directly involved.

Over the five years of the initial agreement, support from the Rockefeller Foundation covered the costs of a four-week series of lectures by international experts in epidemic diseases and tropical medicine. The lectures were staged quarterly either in Geneva, London, Paris, or Berlin, and were attended by health officials sent by their various home countries. After the completion of the month of didactics, the group of visiting physicians and scientists would participate an eight-week clinical practicum before they returned to their home countries. The lectures, and the practical component of the training educated the visitors in the science of epidemiology, methods of proper data collection, and taught the standardized definitions of morbidity and mortality. Throughout the five years, two hundred and fifty international health officials participated in this League sponsored program, with all travel and living expenses paid for with the funds provided by the Rockefeller Foundation. When these officials returned to their home countries, they were able to properly collect and accurately report epidemiological data to both the Health Section offices in Geneva and the OIHP in Paris. As a result of the League's education and training program, by the end of the 1920s, the reporting of international epidemic disease and morbidity

data was far more reliable than it had been before 1920. The accuracy of the data and the expertise of the statisticians and scientists in Geneva, as well as the more frequent use of the telegraph to transmit information, allowed the Epidemiological Intelligence Service to publish data almost in real-time and assist members nations in response to an infectious disease outbreak or the development of new public health infrastructure.

The educational mission of the Health Section and the RF expanded in the late 1920s and 1930s to include the creation of a permanent Commission on Education in Hygiene and Preventive Medicine. The purpose of this commission which included representatives from the Harvard and Johns Hopkins schools of public health, as well as programs in Warsaw, London, Prague, Budapest, and Athens, was to standardize the teaching of public health throughout the world, to develop materials for teaching students, provide ongoing education for specialists and publish and distribute information for public education. League biographer Joseph Barona noted that, "although the independence of individual institutions was also recognized, the coordination with health authorities, universities and medical professionals was facilitated, and the League was able to gather a great deal of information about the professional profiles of public health experts throughout the world."[62]

Another important source of private funding for the League between 1934 and 1939 was the Millbank Foundation. The fund was started by New York City philanthropist Elizabeth Millbank Anderson in 1912. Anderson and her heirs elected to direct their support toward the prevention of illness, disability, and dependency rather than to pure charity. The purpose of the fund was to support the development of public health programs that would impact the poor at large rather than to assist individuals or families. The focus of the Health Section of the LON on the

[62] Joseph Barona, "The Rockefeller Foundation and the League of Nations: Cooperation in International Health." CiteSeer. Accessed February 10, 2017. http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.730.9601.

collection of accurate disease-related data and the development of public health programs throughout Europe, Asia, and South America found synergy with the Millbank Foundation which in the early 1920s had initiated tuberculosis and other contagious disease prevention programs in several rural counties in New York State.

Cooperative public health endeavors were the projects that attracted the support of the Millbank Foundation, particularly after Dr. Frank Boudreau, who had worked with Rajchman in Geneva, became the chief executive of the fund in 1928. Under Boudreau's leadership, the Millbank Fund provided considerable annual financial support to the Health Section and also loaned personnel to assist with League sponsored research studies and the analysis of health data. The Millbank Fund provided invaluable financial assistance to the work of the Health Section which came to rely on international research and analysis to justify new public health policies, practice, and treatments.[63]

Throughout the period of 1923 to 1934, the Health Section received many requests from member nations to assist with various health-related public health matters consistent with the philosophy of the Milbank and Rockefeller Foundations. Rajchman believed that League sponsored experts should act as advisors to national health authorities who had requested assistance with a public health issue. It was the task of these experts to work in their home country to assist with the collection and analysis of relevant data, help to develop a program of prevention and treatment with the best scientific knowledge available, and then to disseminate the data to the international community.

In 1928 Rajchman was re-appointed to a second term of eight years as Medical Director. Despite the contributions of charitable foundations and the annual allocation from the League

[63] "Proceedings of The Fourth New York Health Conference Of The Milbank Fund." *Milbank Fund Quarterly* 7, no. 2 (1929): 29-40.

budget, funding for the Health Section was never adequate. The lack of resources required Rajchman to reassess the activities of the section and to increase the focus on epidemiological surveillance and data collection, reporting on epidemic disease, and the coordination of international efforts in education and research.[64] During the 1930s, the Health Section continued to develop the program of Epidemiological Intelligence and Public Health Statistics with headquarters in Geneva and a second site in the Far East with the main office in Singapore. The latter office has been opened in the mid-1920s to expand the collection and reporting of health statistics to expand the focus of League efforts beyond Europe. Rajchman had been successful in his attempts to establish strong relationships with the government health services in Europe, Japan, and China, and reports on the prevalence and movement of infectious diseases collected, analyzed and published regularly. A publication entitled, The Weekly Report, was printed by the League office in Geneva and by agreement also contained the official reports of the OIHP. Regular collection and dissemination of accurate international epidemiological data beginning in the late 1920s was not easily accomplished and required diplomatic, political, and technical skill on the part of the League Health Secretariat. Frank Boudreau, who would move from his position with the League to the Millbank Fund in 1928 observed that "however, the accuracy of the data received at Geneva and Singapore depends on the efficiency of the national health services, the fact that this information is submitted to an international body and published for all the world to see tended over time to make it more complete and exact."[65] The regular publication of epidemiological data provided the international audience with a better understanding

[64] Boudreau, Frank G. "Health Work of the League of Nations." *The Milbank Memorial Fund Quarterly* 13, no.1 (1935): 3.
[65] Boudreau, Frank G. "Health Work of the League of Nations, 7.

organization and work health services in other countries, facilitated greater comparability of data as well communication between medical and scientific personnel.

In 1925, Rajchman recruited American epidemiologist Edgar Sydenstricker to lead the development of the EIS. Under Sydenstricker's direction, the Health Section initiated the publication and [66]worldwide distribution of monthly and yearly reports of their statistical compilations. In the late 1920s, the EIS also lead the international community in the revision of the International Cause of Death list, which permitted the comparison of mortality statistics from around the world. During the late 1920s and the 1930s, the EIS had two significant roles in the work of the health section. One was to work with national health systems to collect standardized vital statistics, and then to report the data to member states in a format that would be useful for improving public health in different jurisdictions. While after the 1926 meeting the OIHP still received international notifications of disease, the League became, "the hub of epidemiological information."[67] Due to the largess of the Rockefeller Foundation and then the Millbank Foundation, the League offices in Geneva had a more extensive staff, a more comprehensive disease data collection operation, and a larger printing budget than the OIHP, which allowed for the reporting of more extensive and accurate statistics. Despite the de facto designation granted to the OIHP, by the end of 1926, all European nations, and many in Asia reported to the League. As the quality of the information improved, a senior German Health Ministry official noted of the EIS publications that, "these bulletins can be seen as proof of the increasing harmonious

[66] Patricia Sealey. "The League of Nations Health Organization and the Evolution of Transnational Public Health." PhD diss., The Ohio State University, 2011, 129.
[67] Patricia Sealey. "The League of Nations Health Organization and the Evolution of Transnational Public Health, 130.

collaboration of all civilized nations in counteracting epidemics and of the humanitarian aims of that Section, which are being more and more appreciated."[68]

The French, prodded by some members of the OIHP, opposed to the development of the League's EIS as a competitor to their work, called a new sanitary conference in Paris in May 1926. Although the purpose of the conference was to update the existing international sanitary conventions, last revised in 1912, political and diplomatic disagreements complicated the meetings. The conference attendees included representatives of sixty nations, the British Dominions, the OIHP, and the League of Nations. The ongoing relationship between the League and the OIHP and the integration of non-European nations into the conventions occupied most of the discussions. As part of this expansion to include countries previously not convention signatories, Japan argued for international recognition of the unique epidemic disease encountered in Asia and more support for the expansion of data collection to a bureau located in Singapore.

During the conference, there were attempts, mostly on the part of the U.S representative Surgeon General Hugh Cummings, to prevent the League from continuing to expand its international role at the expense of the OIHP. The position of the American government was self-serving and reflected the desire to limit the role of the League, an increasingly influential organization that the U.S. had declined to join .[69] The argument of the American delegation that the OIHP should be the preferred organization to coordinate these international efforts was undermined politically by the extensive funding of League activities provided by the Rockefeller

[68] Patricia Sealey. "The League of Nations Health Organization and the Evolution of Transnational Public Health, 130-131.
[69] Anne Sealey. "Globalizing the 1926 International Sanitary Convention." *Journal of Global History* 6 no 3 (2011):431-455.

Foundation, the largest funder of international activities and a charitable organization based on New York.

Many delegations advocated for the League to assume responsibility for the coordination of epidemiological intelligence. The representatives of Poland, Italy, and the South American countries strongly supported this position. The Japanese had been excluded from membership in the OIHP and pushed for the direct reporting of all epidemiological data from Asia to an expanded bureau in Singapore. When the convention concluded, the OIHP remained the officially designated repository for the reporting of international epidemiological data. However, the most important outcome of the 1926 sanitary convention was what Rajchman and the Health Section had hoped for, which was the increased international emphasis on information sharing. For the next decade, the most dynamic and vital work relative to epidemiological intelligence work took place in Geneva.

Over the next decade, Rajchman successful developed the second EIS site which became known as the Singapore Bureau (EB). By1927, the EB was receiving regular reports from seven Asian nations, publishing a weekly epidemiological report, and using radio and telegraphic networks used to transmit data to the main office in Geneva.[70] Singapore had been chosen for the Eastern Bureau because of British influence and its importance as a significant telegraphic site. The problem with sending data by telegraph from Singapore was that it was expensive and often unreliable. By the early 1930s, data transmission by radio began to replace telegraphy and mail. Radio had rapidly become more reliable and did not require as sophisticated an infrastructure as telegraphy. The British presence in Singapore had allowed the League access to a radio

[70] Patricia Sealey. "The League of Nations Health Organization and the Evolution of Transnational Public Health." PhD diss., The Ohio State University, 2011, 131.

transmitter that was able to reach Europe, the Indian Ocean, and most of Asia. The German government assisted with their facility in Nauen, which would pick up data broadcast from Singapore and relay it to Geneva.

The successful expansion of the ESI to Singapore, encouraged Rajchman to try to expand data collection efforts to Africa and have a third bureau located in Algiers, Cairo, or Dakar. Unfortunately, the colonial powers of Britain, Germany, France and Belgium were unwilling to allow the League to investigate the actual state of epidemic disease in their colonies and had ensured that epidemiological data collection from Africa was specifically excluded by the 1926 Sanitary Convention Treaty. Formal collection of epidemiological data from Africa remained an unfulfilled goal of the LON and did not begin until the 1950s under the auspices of the World Health Organization.

One other remarkable accomplishment of the League's EIS was the establishment of an international center for the collection of international health documents. The purpose of the center was to collect global documentation on public health activities such as legal enactments, administrative reports, minutes of conferences and publications, and to disseminate information as requested by national public health authorities. [71]The RF was again the primary funding source for the creation of this center, and between 1930 and 1934 contributed almost three million dollars toward the construction of a library building to house this center on the grounds of the LON Headquarters in Geneva.[72] The building completed in 1934 and still in use on the campus of the United Nations Headquarters Geneva, currently contains the complete archives of the LON, which were transferred to the custody of the UN in 1948.

[71] Joseph Barona, "The Rockefeller Foundation and the League of Nations: Cooperation in International Health." CiteSeer. Accessed February 10, 2017. http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.730.9601.
[72] Joseph Barona, "The Rockefeller Foundation and the League of Nations: Cooperation in International Health.

The most significant efforts of the Health Section beyond the work of the EIS and the international education and training programs were directed to the three permanent technical committees which were, the Commission on Biological Standardization, the Malaria Commission, and the Opium Commission.[73] These groups were organized during the 1920s to facilitate the League's goals of improving international public health through standardization and research and encouraging the interactions of professionals from different nations. The Milbank Foundation generously supported the work of these groups expanded throughout the 1930s.

The mission of the Commission on Biological Standardization, which was led for many years by Prof. Madsen, was to obtain the agreement of the international scientific community on the standards and units for antitoxins, sera, vitamins, serological lab tests and organic compounds such as thyroid hormone.[74] The six permanent members of the commission were assisted by volunteer experts from different nations as needed. Meetings were held twice yearly, and the site of the conference rotated within Europe to accommodate the needs of the specialist consultants. Once standardized, the serum and other biologicals were kept at one of the two League designated reference labs and sent to institutes throughout the world to assist with production and standardization by the various national health services. The use of internationally certified biologicals contributed, "to higher levels of therapeutic efficiency and greater facility in the interpretation abroad of the results of medical testing and treatment ."[75]

In 1925 the Malaria Commission was constituted to provide international education on the epidemiology, manifestation, treatment, and prevention of this disease still prevalent in parts of Europe, Asia, and the Americas. Courses organized and funded by the Health Section were held

[73] Boudreau, Frank G. "Health Work of the League of Nations." *The Milbank Memorial Fund Quarterly* 13, no.1 (1935):8.
[74] Boudreau, Frank G. "Health Work of the League of Nations, 8-10
[75] Boudreau, Frank G. "Health Work of the League of Nations, 8.

yearly in both Rome and Singapore, taught by a group of specialist medical officers who were involved in anti-malarial work in their home countries. The courses had a similar curriculum to other League sponsored educational programs with a laboratory and didactic component followed by practical fieldwork in the Netherlands and Italy. The commission also visited countries where malaria was endemic and by the mid-1930s had published studies in the Quarterly Bulletin of the HS on the epidemiology of malaria, the world requirements for quinine, and the efficacy of treatment with new synthetic drugs. As was the case with many of the other activities of the League, transnational collaboration, education, and systematic study of malaria led to the development of international guidelines and principles that would govern the management of malaria in all nations. This evidence-based approach was adopted by the WHO in the 1950s and used in the efforts to eliminate malaria in Africa. [76]

The Opium Commission was the technical group that carried out League mandated responsibilities that were part of the international opium conventions signed between 1921 and 1936. The purpose of these agreements was to control the manufacture and distribution of narcotic drugs worldwide and to determine the legitimate needs of member states. As part of the 1925 convention, the HS was tasked with deciding whether specific preparations of narcotics should be subject to control, and these recommendations were made based on the data collected and analyzed by the members of the Opium Commission. The Commission also collaborated with Biological Standardization to standardize the methods of determining the morphine content of raw opium and the content of cocaine in coca leaves.[77] The reports produced by the Commission facilitated the manufacture and purity of narcotic drugs for legitimate medical

[76] Boudreau, Frank G. "Health Work of the League of Nations, 10.
[77] Boudreau, Frank G. "Health Work of the League of Nations, 11-12.

purposes. The Commission also provided information that was used by international law enforcement organizations to control the illicit production and use of narcotics and opium.

The work of the Health Section of the LON began as the Temporary Epidemic Commission in 1920 as the first-ever legitimate international response to a medical emergency. Between 1920 and 1924, the efforts of the commission were critical in the control of the typhus and cholera epidemics in Eastern Europe and prevented the spread of the diseases to the West. As a part of the new international body, the LON, the Epidemic Committee, and the HS facilitated negotiations between the former enemies Russia and Poland, which not only contributed to the solution of the health emergency but also ameliorated the famine in Western Russia and the Ukraine and ultimately helped re-integrate the Soviet Union into the European community. The efforts of Drs Madsen and Rajchman to involve Germany in these early public health activities and to appoint a German representative to the permanent Health Section in 1924 served to encourage engagement between French, German, and British representatives. These medical and scientific contacts expanded quickly and facilitated the Weimar Republic's membership in the LON in 1926.

The success of the Health Section was the result of the efforts of its many talented physicians, administrators, and volunteers. The strategic goals of the section and the development of the clinical, scientific, and educational programs were, however, the result of the vision and talent of Dr. Ludwig Rajchman, Medical Director of the Health Section, from 1921 and 1938. The final chapter of this work will provide additional details regarding the life and work of this remarkable man.

CHAPTER III: LUDWIG RAJCHMAN, THE MAN AND THE ORGANIZATION

"Rajchman believed in the generosity of men but had the foresight to found institutions."
Jean Monnet, Deputy Secretary-General
League of Nations 1919-1934

This chapter will provide a narrative of the life and career of Dr. Ludwig Rajchman, medical director of the Health Section of the LON from 1919-1939. Rajchman had a strong internationalist focus and throughout his career maintained the opinion that improvements in public health were essential to a nations political, economic, and social development. He had a passionate belief in the sentiment expressed in the League charter that collective efforts to safeguard public health were an integral part of the organization's security mission and that all nations should be involved in this work regardless of their political system. These opinions were consistent with majority post-war European sentiment which supported the concept of internationalism and the belief in collective responsibility for the solution of Europe's problems.

Dr. Rajchman had received advanced training in bacteriology and epidemiology at the Pasteur Institute in Paris and was a significant player in the post-war efforts of the Polish government to control the epidemic disease outbreak in the Eastern part of the country. He had also been the lead physician in the founding of the Polish National Institute of Hygiene in Warsaw in 1919, which was the first bacteriological laboratory in Poland. Rajchman's experience qualified him to lead the Health Section and the commitment to internationalism that he shared with Drummond contributed to the many accomplishments of the HS during the first decade of its existence.

During the worst years of the typhus and cholera pandemics in Eastern Europe, Rajchman gained notoriety for his leadership of the Health Organization's successful response to these outbreaks and prevention of the further spread of these diseases to Western Europe. During this

early period in his career with the LON, Rajchman also established relationships with charitable foundations such as the Rockefeller Foundation in New York that resulted in the donation of millions of dollars to support the public health projects of the Health Section. This extensive support facilitated successful programs in international education and research, the development of public health infrastructure and worldwide standardization of laboratory techniques. Throughout his tenure as Secretary-General, Eric Drummond frequently expressed his belief that the Health Section was one of the League's most successful sections, and that, "it is mainly due to Rajchman that the Health Organization plays such a prominent role in the League's activities."[1]

Rajchman was appointed as medical director of the Health Section in 1919 by Drummond, a career British politician and diplomat, and the League's first Secretary-General. During Drummond's initial year in office, he created the world's first international civil service which became known as the permanent League Secretariat. The Secretariat provided staff and support personnel for each section of the LON. Susan Pedersen noted that "nothing the League produced was more quietly revolutionary than the international secretariat because there was no real precedent."[2] The international character of the secretariat was reinforced by the Secretary-General's policy of hiring a staff of men and women," de novo" by the LON, and not lent from national bureaucracies.[3] The staff of the Secretariat was ultimately drawn from over thirty countries that differed in language, religion, and training, but as employees of the League owed their allegiances to the organization and not to their national governments. The choice of a Jewish physician from Poland as the director the Health Section was controversial because of the

[1] Marta Balinska, *For The Good of Humanity, Ludwig Rajchman Medical Statesman*, 34.
[2] Pedersen, Susan. "Back to the League of Nations." *The American Historical Review* 112, no.4 (2007):1091-1117.
[3] Pedersen, Susan. "Back to the League of Nations, 1091-1117.

polite, but undeniably antisemitic climate at the League, as well as the fact that Rajchman came from Poland, a controversial and newly reconstituted nation.[4] At the time he was selected for the post at the LON, Rajchman was in charge of the Polish government's response to the typhus and cholera epidemics.

During the 1930s, European public opinion began to shift in a more conservative direction, and in 1933 there was a change in leadership at the League. The new Secretary-General M. Joseph Avenol of France did not share the progressive views of his predecessor and in fact was a supporter of the fascist movements in Italy and Germany. Avenol did not believe that the transnational efforts of the Health Section were worthwhile and objected to Rajchman's increasingly strident public criticism of Hitler and Mussolini. He and Rajchman would clash frequently during the remainder of the decade, and their policy and political disagreements would ultimately lead to Rajchman's dismissal from the League shortly before the outbreak of WW II.[5]

Following the German invasion of Poland in September 1939, Rajchman and his wife went to London, where he worked during the war as a representative of the Polish government-in-exile. His area of responsibility was directed to the plight of Polish refugees and he worked tirelessly to raise money to ameliorate the food shortages in Warsaw and other large cities under Nazi occupation. During the war years, he became known for his concern with the plight of Polish children, particularly the Jewish children confined to the ghettos throughout the country. Rajchman's tenure as Director of the Health Section, as well as his reputation and expertise with refugees, proved useful in the post-World War II era and provided him with the credibility and

[4] Marta Balinska, *For The Good of Humanity, Ludwig Rajchman Medical Statesman.*48.
[5] James Barros. *Betrayal from Within; Joseph Avenol, Secretary-General of the League of Nations, 1933-1940*. (New Haven: Yale University Press, 1969) 8.

experience to be the driving force behind the creation of the United Nations Children's Fund (UNICEF) in 1946.

The narrative of Rajchman's cultural and religious upbringing, his early political associations, and professional training help to understand his priorities as the first Medical Director of the Health Section of the LON. He was born in 1881 into an upper-middle-class Jewish family in Warsaw, which at the time was in the Russian controlled Congress Kingdom. His grandparents had migrated from Germany before the final partition of Poland in 1795, and although his family identified with the large Jewish community of Warsaw, they considered themselves to be Polish secular Jews.[6] Marta Balinska, an epidemiologist at the WHO in Geneva, noted that Rajchman grew up in the late eighteenth and early nineteenth century, " at a time when his generation was imbued with the spirit of Polish patriotism, and dreamt of not only of an independent Poland but of a land of social justice, in which the factor linking person of diverse social origins, ethnic groups and religions was universal education and a common Polish culture."[7] As a teenager, Rajchman joined the Union of Young Socialists, became personally committed to the movement for Polish independence, and often distributed illegal publications that were critical of the Tsar and encouraged others to support a free Poland.

Rajchman chose to study medicine at the Jagiellonian University in Cracow because the city was in Austro-Hungarian controlled Galicia and had a political environment more tolerant and progressive towards Polish culture and national values than in Warsaw which was under Russian control. Early in his studies, Rajchman became interested in bacteriology, taught by Professor Odo Bujwid, who was not only the father of Polish microbiology but also a socialist and Polish nationalist. Bujwid became Rajchman's mentor and demonstrated to his student that a physician

[6] Marta Balinska, *For the Good of Humanity, Ludwig Rajchman Medical Statesman,* 7.
[7] Marta Balinska, *For the Good of Humanity, Ludwig Rajchman Medical,* 9.

could become a leading expert in his field, and at the same time be committed to social justice and the ongoing struggle for Polish independence.

Rajchman joined the Polish Socialist Party (PPS) in 1905 and participated in demonstrations and other political activities throughout the country organized in support of efforts to obtain Polish independence. This involvement ultimately led to his arrest by the Tsarist police and incarceration in Warsaw for four months in 1906. After his parents and their influential friends intervened in his case, Rajchman was freed but only on the condition that he would leave the Congress Kingdom. Despite his love for Poland, other than the time he spent on anti-epidemic work for the Polish Ministry of Health between 1918 and 1919, professional and political factors required Rajchman to live outside of the country for the remainder of his life. However, his early life in Warsaw, student period in Cracow, and association with many leading socialists and Polish patriots of the day imbued him with a belief in a cooperative of social order. Balinska observed that Rajchman brought his lifelong commitment to the betterment of society to his work with the League of Nations and believed that "that it was possible to change the existing order to create a new one, and that is essential to grasp this vision if one is to understand the ambitious projects into which Rajchman subsequently launched himself."[8]

Rajchman completed his training in 1910 at the Pasteur Institute in Paris, which in the early twentieth century was one of the few centers that offered specialty instruction in tropical health and bacteriology. During his time in Paris, Rajchman occupied himself with medical and scientific pursuits and eschewed political activity. Balinska noted that his lack of involvement in the Polish independence movement was because "Paris had become the haven for the conservative elements of the Polish community, whereas the socialists and those who advocated

[8] Marta Balinska, *For the Good of Humanity, Ludwig Rajchman Medical*, 9-10.

for Polish independence tended to congregate in London."[9] A desire for closer connections with the socialist movement may have motivated his move to London in 1911 when he was appointed Director of the bacteriology laboratory at the Royal Institute of Health (RIH). During his time at the RIH, he developed expertise in the control of infectious disease pandemics when he was placed in control of the efforts to combat typhus and the Spanish flu. He also had the opportunity to interact with many of the members of the sizeable Polish émigré community who would be part of the future Polish government such as Tytus Filipowicz, Roman Dmowski, Jan Pilsudski, and the first Prime Minister of Poland, Jan Paderewski.[10] He remained in the position at the RIH until just after the armistice in November 1918 when he returned to Warsaw to assist the Polish government with efforts to control the outbreak of epidemic typhus.

The previous chapter reviewed the salient aspects of Dr. Rajchman's role in the fight to control the disease epidemics in Eastern Europe, the efforts toward the amelioration of the Russian famine, and the establishment of the League directed Epidemiological Intelligence Service (EIS). The importance of Rajchman's role in obtaining the support provided by the Rockefeller Foundation, for the League's educational and research programs cannot be overstated. From the beginning of 1925, Rajchman planned to expand the EIS from the initial site in Geneva to Japan, China, other parts of Asia and then to Africa. It has been previously noted that the effort to expand the collection of epidemiological data to Africa was blocked by the colonial powers of Britain, Germany, Portugal, and Belgium. A discussion of why Rajchman's attempts to expand the League's presence in Japan and China also ran into opposition is germane here because it reflects how the changing political landscape of the 1930's

[9] Marta Balinska, *For the Good of Humanity, Ludwig Rajchman Medical*, 30.
[10]Marta Balinska, *For the Good of Humanity, Ludwig Rajchman Medical*, 45.

affected the existing internationalist mindset in the run up to the outbreak of the Second World War.

Rajchman was committed to achieving internationalism and public health equality through the work of the HS. One of the ways to achieve these goals was to expand epidemiological data collection to Asia and Africa and include this information in the regular reports published by the EIS. Not everyone who worked at the League or interacted with the HS supported the plan for expanded data collection. Although the United States was not a member of the LON, U.S. Surgeon General Hugh Cummings, a member of the League's Health Advisory Board, repeatedly attempted to block the expansion of the EIS on the grounds that it was a usurpation of the treaty functions of the Office of International Hygiene Publique (OIHP). Throughout the late 1920s and the 1930s, British diplomat George Buchanan, another member of the Health Advisory Board as well as the OIHP, also tried to prevent Asian nations such as Japan from joining the sanitary conventions with arguments such as, "Great Britain and America between them know better about epidemiological surveillance and the needs of quarantine services and the matters dealt with in the conventions than do most other nations and the participation of the nations of Asia is not necessary."[11] The British, French, and Germans also objected to an expansion of League involvement, particularly in China, because they believed that the presence of international representatives would focus attention on the extensive and unfair foreign concessions that had been forced upon China by the European colonial powers.[12] The fact that the HS was able to open a second EIIS bureau in Singapore was noteworthy and important from the perspective of enlarging the scope and role of the organization. Unfortunately, as Rajchman

[11] Iris Borowy. *Coming to Terms with World Health: The League of Nations Health Organization, 1921-1946.* (Frankfurt: Peter Lang, 2009), 28.
[12] Ibid, 29-30.

became increasing visible as the public face of the Health Section, he began to stray from matters of health to matters of politics which eventually undermined his public health programs as well as his personal reputation among the members of the League.

Based on the first few years of epidemiological data collected from Asia, it became clear that despite excellent public health services, Japan had excessive case numbers of epidemic diseases such as typhus, malaria, yellow fever, and cholera. Epidemiological study and data analysis demonstrated that these diseases were not endemic to Japan but were imported from China as a consequence of trade and commerce between the two nations. China was unable to effectively address her problems with rampant infectious disease and even as late as the later part of the 1920s lacked an organized public health service or even an official quarantine program.[13] The identification of major outbreaks of infectious diseases in Japan and China was an example of the benefit of expanded epidemiological surveillance to Asia. The information collected facilitated the development of a plan for a public health solution, based on objective data, that would benefit both countries. Rajchman, while interested in working more closely with the highly sophisticated Japanese public health service believed, that his time would be better spent working with the nascent Chinese public health officials to organize a quarantine system in China which would allow the League to use its machinery to address a key health problem that affected much of Asia and offered innumerable possibilities for developing public health."[14]

In 1926 Rajchman received an invitation from the Chinese government to meet with health authorities in Beijing, tour urban as well as rural areas, and make recommendations regarding how the League might assist China in the development of a public health and

[13] Alison Bashford. *Medicine at the Border: Disease, Globalization and Security, 1850 to the Present*. (Basingstoke: Palgrave Macmillan, 2014), 126.
[14] Marta Balinska, *For the Good of Humanity, Ludwig Rajchman Medical Statesman,* 79.

quarantine infrastructure. Modernization of the Chinese health system presented challenges given the longstanding homeopathic traditions and the lingering distrust of western medicine. One of the observations that Rajchman made in his summary report after this first trip was that there were at most ten thousand western trained physicians in all of China which left, "400 million Chinese almost exclusively to the care of Chinese practitioners who base their skill on tiger hair and lion skin cures."[15] During his meetings with government leaders, Rajchman also learned that the League had reneged on a promise to grant China a permanent seat on the Council, and without consultation had granted Japan the former German concession in Tianjin.[16] Rajchman was told that full engagement with the League would not be possible until these issues had been resolved.

Upon his return to Geneva, Rajchman submitted a fifty page document to the Health Section and to the Secretary-General which contained recommendations, "that the League undertake a comprehensive program in China and develop assistance projects, send technical experts in public health, finance and public transport."[17] The Health Section accepted Rajchman's recommendations and forwarded them to the Assembly for approval. Britain and France, concerned that greater League involvement with China would negatively affect their commercial dominance in the region, limited the implementation of these proposals to modernize China's health system as well as their political and economic infrastructure.

It was not until February 1929 that Rajchman was invited back to China by the new government headed by Chiang Kai-shek's Kuomintang Party. Dr. Rajchman was accompanied by Victor Heizer, Director of the Rockefeller Foundation Health Board and together the two men

[15] Marta Balinska, *For the Good of Humanity, Ludwig Rajchman Medical Statesman*, 80.
[16] Frank Walters. *A History of the League of Nations*. (Westport: Greenwood Press, 1986), 121.
[17] Frank Walters. *A History of the League of Nations*, 328.

assisted Chinese health authorities with the creation of a National Ministry of Health in Nanking. Rajchman and Heizer spent several months in Shanghai, Peking, Nanking, and Canton inspecting the ports and developed a plan for anti-epidemic measures and maritime quarantine. Rajchman submitted a proposal to Health Minister T.V. Soong for the creation of a Chinese National Institute of Public Health, modeled on the Polish Institute of Hygiene, and supported by the League of Nations. Heizer supported this proposal and committed funds on the part of the Rockefeller Foundation for a new institute that would be incorporated into the existing Rockefeller Foundation Medical University. Rajchman garnered the support of Dr. John Grant, an American physician who had been instrumental in the organization of the medical college and had considerable experience working as a physician in both Japan and China. Grant noted in a letter to the a colleague at the League that Rajchman's visit had raised the prestige of the newly organized Health Ministry, gained the support of the Chinese medical establishment for the development of a Western style health institute, and contributed to the decision of the Chinese government, "to provide the medical school with the unexpected sum of a million dollars and also contributed to the reconciliation of various medical factions thus favoring the continuation of reforms."[18]

Rajchman reported to his colleagues at the League that he considered the upcoming collaboration with the Chinese to be one of the most important of the HS public health opportunities to date. In his enthusiasm to guide the Chinese into a more comprehensive relationship with the West, Rajchman also attempted to facilitate more extensive economic and political connections between China and the League of Nations. These efforts made in the early 1930s were clearly outside his area of responsibility, and met with considerable resistance from

[18] James Grant. "Warsaw Colloquium Address, October 1982." Archives of League of Nations, Geneva.

the British and French who were not willing to "allow officials in Geneva to meddle in their colonies or concessions."[19] George Buchanan, Rajchman's colleague for over a decade on the Health Committee expressed his objections at the time and suggested that in his work with the Chinese representatives, the doctor from Poland " appeared contemptuous of most Europeans and wondered whether the whole scheme, including the invitations of the Chinese government to the League, was not a good deal more political than they were hygienical."[20]

Between 1929-1934, despite the objections of the colonial powers, Rajchman continued to push the League to assist Chinese officials in the development of public health infrastructure and to extend cooperation to other areas. These efforts prevented the outbreaks of cholera and yellow fever outbreaks associated with the Yellow and Yangtze rivers floods in August 1931. Despite continued governmental support for the modernization of the Chinese health infrastructure, the lingering effects of the depression had reduced funding, and deteriorating political situation in Asia had halted any meaningful progress. An example of how the shift in international politics changed the League's relationship with nations like Japan, and negatively affected Rajchman's position occurred in September 1931 at the so called the Mukden incident when Japanese forces illegally occupied Manchuria and set up the puppet state of Manchukuo.

At this point in time, Rajchman's work in China and his relationship with Chinese leaders allowed him influence over political decision making. Given his strong belief in the international security mission of the LON, Rajchman went far afield of his expertise and advised his Chinese colleagues not to negotiate with the Japanese directly but rather to address themselves to the LON and that, "pressure exerted by the League would be sufficient to force the

[19] Jean Monet. *Memoires,* (Paris, Fayard, 1976), 130.
[20] Balinska, *For the Good of Humanity, Ludwig Rajchman Medical Statesman,*85.

withdrawal of Japanese troops."[21]

Rajchman justified his advice to the Chinese leadership in the Mukden Affair because he believed that as the representative of the international community, the LON should supervise an equitable settlement between Japan and China. According to a diary entry made by Chiang in 1932, Rajchman had told him of his view that "with the Japanese aggression in China, the second World War had begun and wondered if the statesmen of the world were aware of this?" [22] He continued to press the Secretary-General to send a League commission to Manchuria to evaluate the legitimacy of the Japanese occupation. This aggressive advocacy for the LON to take an active pro-China stance caused a great deal of consternation in Geneva as Japan was viewed as a loyal League member with Japanese diplomats known for their courtesy and role as mediators.

Japanese press coverage of League activities in the aftermath of the Mukden Affair were scathing in their criticism of the Director of the Health Section and repeatedly inquired rhetorically in print as to "why a Polish doctor, a mere technical envoy from the League, was getting involved in questions that were none of his business?" [23] The French representative to China, Henri Wilden, was uncomfortable with what he viewed as Dr. Rajchman's excessive passion for the Chinese cause. During the crisis, he wrote to his Prime Minister Aristide Briand that while Rajchman might be useful as a moderator between the Chinese and the League, his public anti-Japanese pronouncements had to stop and made it clear "that the League Council was not advocating the Chinese cause exclusively, but to prevent Japan from complaining must be seen to be impartial."[24] The French charge d'affaires Henri Hoppenot also considered the Polish doctor to be a blind

[21] Niemeyer, Gerhart. "The Balance Sheet of the League of Nations." *International Organization* 6, no. 4 (1952): 537.
[22] Niemeyer, Gerhart. "The Balance Sheet of the League of Nations, 538-539.
[23]George Scott. The Rise and Fall of the League of Nations (New York: Hutchinson, 1973) 352.
[24] George Scott. The Rise and Fall of the League of Nations, 353-354.

Sinophile. He believed that, "Rajchman had tried to generalize his success in health care to other areas of international relations and had attached too much importance to international cooperation while forgetting the need for simultaneous government and moral reforms required to support a sustained effort."[25]

In March 1933, Japan resigned from the League in protest of the refusal of the international community to recognize Japan's establishment of Manchukuo. Rajchman was deeply affected by the invasion of Manchuria because he believed that "it had both humiliated his Chinese friends, and threatened world peace through the rise of fascism."[26] Regardless of his motivation, Rajchman's interference in the Mukden affair permanently damaged his reputation with the international community and diminished his standing at the League.[27] In 1934, French diplomat Jean Monnet, who had been Drummond's deputy at the League noted Rajchman should have confined his activities in China to health related matters rather than become involved with the diplomatic crisis with Japan. He complemented Rajchman's expertise in infectious disease control and public health but noted that he had many nations including China over to the League, "through the efforts in public health, and that his involvement in other areas was counterproductive."[28]

Rajchman's position was compromised further when Drummond resigned as Secretary-General of the LON in June 1933, to become the British Ambassador to Italy. Drummond had lobbied for his replacement to be from a smaller nation to replace him as Secretary-General, because he believed that the nomination of a national from a liberal democracy such as France would be "opposed by countries such as Germany and Italy and could, therefore, do harm to the

[25] George Scott. The Rise and Fall of the League of Nations, 354.
[26] Balinska, *For the Good of Humanity, Ludwig Rajchman Medical Statesman,* 269.
[27] George Scott. The Rise and Fall of the League of Nations (New York: Hutchinson, 1973) 357.
[28] Ibid, 360.

League." Nevertheless, French diplomat M. Joseph Avenol, then Deputy-Secretary General was appointed to replace Drummond. Avenol was not committed internationalist, and in his book, *The Enemy From Within, Joseph Avenol, Secretary-General of The League of Nations, 1933-1940*, historian Joseph Barrios noted that many in the League considered him to be a French chauvinist with fascist inclinations."[29] The prevalent opinions of the British Foreign Office was that Avenol was a lazy and inefficient administrator, and was neither honest nor straightforward in his dealings with the members of the secretariat.[30] Despite the opposition to Avenol, the French government was able to secure his appointment based on a 1919 understanding between Lord Balfour, the British Foreign Minister, and French Prime Minister Georges Clemenceau that provided for a Frenchman to be appointed as Secretary-General whenever Drummond left the post.

In early 1934, the Japanese consul-general in Geneva, Yokoyama visited the new Secretary-General to demand Dr. Rajchman's removal from his position with the League for his anti-Japanese positions, and continued advocacy in favor of China. The consul general argued that the doctor's advice to Chinese leaders regarding the Mukden Affair had played a significant role in preventing a negotiated settlement between Japan and China. The German government supported the Japanese position and Nazi minister of propaganda Josef Goebbels publicly and in newspaper articles referred to Rajchman as "Soong's Polish Jew and his stupid China policy."[31]

After a final visit to Asia in 1934, Rajchman continued to argue that China required increased aid from the League to prevent the country from being compelled to sign an unfavorable agreement with Japan and be subject to further colonization. By this point in time, Dr. Rajchman

[29] James Barrios. The Enemy Within, Joseph Avenol, Secretary-General of The League of Nations, 1933-1940. (New Haven: Yale University Press, 1969), 8-10.
[30] James Barrios. The Enemy Within, Joseph Avenol, Secretary-General of The League of Nations, 1933-1940, 11.
[31]Marta Balinska, *For the Good of Humanity, Ludwig Rajchman Medical Statesman,* 100.

had become so identified with the Sino-Japanese problem that even the British Foreign Office "discretely hinted to the League officials in Geneva that it was time to get rid of this growing nuisance."[32] With the diplomatic cover provided by British and even Polish diplomats at the League Headquarters, Avenol relieved Rajchman of any further responsibilities for China, ordered him to cease his public political activities, and to limit himself to the affairs of the Health Section.[33]

Beyond the issues relevant to China and Japan, the remainder of the 1930s was a demanding professional and personal time for Rajchman in his role at the League. Avenol was not supportive of the work of the Health Section and during his tenure as Secretary-General, clashed repeatedly with Rajchman at budget and advisory meetings over annual cuts to the budget of the Health Section, and reduction of ongoing programs.[34] There was a great deal of personal animosity between the two men based upon their differences in political and personal philosophy. Rajchman made it clear that Avenol's support of Mussolini's conquest of Ethiopia, the pro-Franco rebels in Spain, and German interests in Danzig, proved that the new Secretary-General was a right-wing extremist and fascist appeaser. Avenol was an unapologetic anti-Semite, and persistently undermined Rajchman as one of the "Jewish contingent" within the League Secretariat, as well as a crypto-communist, supporter of the Soviet Union, and a Freemason.[35]

Drummond had allowed Rajchman a great deal of independence regarding decision making for the HS. Avenol altered this paradigm and one of the first administrative changes he instituted

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[32] Marta Balinska, *For the Good of Humanity, Ludwig Rajchman Medical Statesman,* 101.
[33] Report of the 17th Session of the Health Section, 10 May 1934. League of Nations Archives, Geneva, C.H.722.193.1934.III.

[34] Balinska, *For the Good of Humanity, Ludwig Rajchman Medical Statesman, 126.*
[35] James Barrios. The Enemy Within, Joseph Avenol, Secretary-General of The League of Nations, 1933-1940, 24.

was to establish a small office within the League Secretariat called the Central Section. This office subjugated all section directors to the new Secretary-General and centralized League communications and activities so that Avenol then controlled virtually all the essential organizational decisions and functions.[36] As the Secretary-General, Avenol now controlled the allocation of all League funds, and his refusal to approve the spending of money, even after approval by the League Assembly, paralyzed the HS.

The signing of the Munich agreement between Britain, France, and Germany in September 1938, threw the League into crisis. Professional diplomats employed at the League expressed outrage that the betrayal of Czechoslovakia was a violation of the League's founding principles. Unfortunately, the Europe of the mid to late 1930s had become far more conservative, and the League found itself squeezed between the competing interests of the liberal democracies and the totalitarian states. In an attempt to prevent another world war, Avenol met with British Secretary of State, Lord Halifax, and French Minister of Foreign Affairs, George Bonnet, in April 1939. In a reflection of how visible and important Rajchman had become on the world stage, as part of their attempt to maintain peace in Europe, the British and French informed the Secretary-General that is was time to, "purge the Secretariat of officials such as the Director of the Health Organization who had leftist tendencies or who for other reasons had been outspoken in their reply to dictatorships and recent policies as regarded the Munich settlement."[37] The meeting minutes revealed that Halifax admitted that Rajchman had done an excellent job of running the Health Section for over fifteen years. However, Halifax also noted that" his political activities were such that they had prejudiced the influence he might have had as the head of the

[36] James Barrios. The Enemy Within, Joseph Avenol, Secretary-General of The League of Nations, 1933-1940, 24.
[37] James Barrios. The Enemy Within, Joseph Avenol, Secretary-General of The League of Nations, 1933-1940,187.

Health Organization and that his reported promise to apply himself to his technical work and drop his political activities has not been kept.[38]

Avenol did not dismiss Rajchman immediately after meeting with Halifax because the Secretary-General believed that a justification beyond the doctor's political views was needed. In the Spring of 1939, budgetary shortfall was the reason given by the League for the elimination of Rajchman's position was eliminated along with other positions within the HS. Interestingly, U.S. intelligence agents who had been monitoring Rajchman's activities for some time, had been made aware of the meeting between Halifax and Avenol, and reported to Washington that the true reason for the immediate reduction in staff was the left-leaning views of many in the League Secretariat, most specifically Ludwig Rajchman.[39]

Avenol did not personally handle the Rajchman's dismissal, which would have been appropriate given the Medical Director's senior position and many years of service with the League. Instead, he delegated the task to the Deputy Secretary-General Sean Lester who disagreed with the decision to fire Dr. Rajchman.[40] A few days after his dismissal, Rajchman wrote a farewell letter to Avenol. In the letter, he said, "I am leaving without bitterness, conscious and happy to have been able to glimpse that international cooperation is possible, that it can be disinterested…I tried to gain acceptance for the Covenant and its philosophy, and although that task was sometimes hard, and will be even more so in the future, I intend to pursue it."[41] For the remainder of the 1939 budget year, Avenol elected to transfer the budget of the

[38] James Barrios. The Enemy Within, Joseph Avenol, Secretary-General of The League of Nations, 1933-1940,, 187-188.
[39] James Barrios. The Enemy Within, Joseph Avenol, Secretary-General of The League of Nations, 1933-1940, 188-189.
[40] James Barrios. The Enemy Within, Joseph Avenol, Secretary-General of The League of Nations, 1933-1940, 189.
[41] Letter Ludwig Rajchman to Joseph Avenol, 29 May, 1939. League of Nations Archives, Geneva. C.268.C.H. 472.1939.III.

Health Section to other areas of the Secretariat, and without funds or leadership, the work of the Health Section came to a virtual standstill.

Shortly after the outbreak of World War II, Rajchman became a member of the Polish government- in- exile, responsible for obtaining political and material support for refugees both in Poland and the Soviet Union as well as for Polish emigres in the U.K. and the United States. Based on his relationship with the Boards of the Rockefeller Foundation, he obtained support to successfully relocate five hundred Polish intellectuals to the West.[42] Rajchman spent most of 1940 traveling between Paris, London, and Washington in an attempt to raise the millions of dollars needed to support the Polish civilian population under German occupation. As part of this work, General Sikorski, the head of the Polish government-in-exile, asked Rajchman to present the Polish request for American support directly to President Roosevelt. The U.S. State Department was slow to join the Polish relief effort, and officials cited American neutrality as a significant logistical barrier even though the German government had agreed to allow relief aid in the General Government areas of occupied Poland. Rajchman raised a considerable amount of money in concert with the *Comporel*, which was the umbrella group for Polish organizations in the U.S. These funds and additional contributions by the British government and the International Red Cross purchased five million pounds of food and medicine. These supplies, delivered to occupied Poland in the summer of 1941, saved fifty thousand children in Warsaw from starvation.[43] Importantly, most of the food destined for Poland was purchased and shipped from the Soviet Union. Count Jerzy Pitoki, the Polish Ambassador to the U.S., noted at the time that Rajchman's good relationship with the Russian Ambassador Umansky and other

[42] Balinska, *For the Good of Humanity, Ludwik Rajchman Medical Statesman,*142.
[43] Balinska, *For the Good of Humanity, Ludwig Rajchman Medical Statesman,* 154.

representatives of the Soviet government had likely facilitated the movement of the food and supplies to Poland.[44]

Rajchman returned to Europe in the Spring of 1940 and spent time attempting to coordinate relief shipments to Poland from stockpiles in Eastern France. Just before the French surrender, he and his family traveled to London and stayed there for the remainder of the war. For the next few years, Rajchman continued to play a role with the Polish government in exile in London and used his contacts with the Polish- American community to raise money to assist Poles under German occupation. In early 1945 as it became clear that the war was nearing its end, Rajchman began an effort to fashion a role for himself in the post-war world as the head of a new international health organization modeled on the Health Section of the LON that would oversee post-war reconstruction and refugee relief in Europe. In 1944, at the request of the United Nations Relief and Rehabilitation Administration (UNRRA), he produced a lengthy report which analyzed the major sanitary and administrative problems to be addressed after the war. Consistent with his philosophy of transnational cooperation, one of his most important recommendations was the establishment of a Commission For Health Planning for Europe (CHPE). The newly organized United Nations (UN) accepted this recommendation and established the Commission with offices in London just after the German surrender in May 1945. Despite his desire to serve on the commission and his obvious expertise in public health, Rajchman was excluded from membership. The decision to keep Rajchman off the CHPE was an American driven political calculation based in part on the doctor's long standing and competitive relationship with U.S. representative Hugh Cummings and the U.S. Public Health

[44] Bartoc Kozusznik. "In Memorium Ludwig Rajchman MD." *Zdrow Publiczne* (Warsaw), September 9, 1965.

Service.[45] Rajchman had also angered Allied political leaders with his public criticism of what he saw as, "an almost universal readiness to accept the division of Europe into spheres of influence while paying only lip service to collective security and world authority."[46] While still supportive of engagement with the Soviet Union, Rajchman also alienated Soviet leaders as well as members of the Polish Communist Party when he publicly expressed his opinions that Stalin would never allow free elections in Poland and that his country of birth was likely to become a repressive Soviet-style state.[47] At the end of the war in May 1945, it was therefore uncertain what role he might play in a new international health organization or in the reconstruction of Poland. Despite the doubts about his future, Rajchman wrote to his son-in-law Anton Balinski on VE Day, and expressed, "an overwhelming desire to take part in his country's reconstruction once the occasion presented itself."[48]

At the end of June 1945, Rajchman received a communication from the new Polish government in Lublin with an offer to be the Polish representative to UNRRA. Despite his objections to the Russian domination of the Lublin government, Balinska noted that "Rajchman was naturally eager to be associated with the greatest relief and reconstruction effort ever undertaken."[49] After his death in 1965, a friend and colleague at the LON Philip Noel-Baker wrote that Rajchman accepted the Polish government's offer to serve as the delegate to UNRRA with hesitation. He remembered Rajchman's stated rationale that, if I'm their delegate, I have a

[45] Frank Northedge, *The League of Nations: Its Life and Times, 1920-1946* (Leicester: Leicester University Press, 1988) 175.
[46] Marta Balinska, *For the Good of Humanity, Ludwig Rajchman Medical Statesman* ,187.
[47] Frank Northedge, *The League of Nations: Its Life and Times, 1920-1946* (Leicester: Leicester University Press, 1988), 288.
[48] Balinska, *For the Good of Humanity, Ludwig Rajchman Medical Statesman* ,189.
[49] Balinska, *For the Good of Humanity, Ludwig Rajchman Medical Statesman*, 191.

place in the Assembly of the UN, I have official status, without it I am Rajchman, ex-director of the Health Organization of the League, of no use to anyone."[50]

During its short existence 1945-1947, UNRRA became the victim of political disagreement between the Western bloc led by the U.S., Britain, and France, and the Russian dominated states of Eastern Europe. The United States provided virtually all the funds for UNRRA and pressured the organization to restrict aid to the Soviet dominated, communist government of Poland. In his role as delegate, Rajchman was successful in convincing UNRRA that to avoid a humanitarian disaster, it was necessary to put politics aside and release aid funds to Poland. He argued that in addition to food and medical supplies, outside medical personnel were needed as most Polish medical personnel had fled or had died during the war. UNRRA observers in Poland had reported that most of the drinking water in the cities was unsafe, and that the risk for the proliferation of cholera and typhus was as significant as it has been after World War I.[51] The refugee problem was immense with one hundred fifty thousand orphans and nearly two million children with only one remaining parent.[52] Due to in large part to Dr. Rajchman's persuasive arguments, Poland received a higher proportion of UNRRA aid than any other European country. Between 1945 and 1947, enough medical resources were provided to prevent the outbreak of epidemic disease and adequate food delivered so that widespread starvation did not occur. Unfortunately, despite the efforts of prominent men such as Herbert Hoover and Fiorello LaGuardia, who worked to keep the UNRRA alive, political considerations led to the U.S announcement of its intention to withdraw from the organization at the UNRRA Council meeting in June 1946.

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[50] Balinska, *For the Good of Humanity, Ludwig Rajchman Medical Statesman* 195.
[51] Report of United Nations Observers on Conditions in Poland, May 1945. League of Nations Archives, Geneva, C.193. 1945.III.
[52] Report of United Nations Observers on Conditions in Poland, May 1945.

Shortly after the U.S. representative, LaGuardia, made this announcement at the meeting, Rajchman was asked to speak, and proposed that the funds that remained in the UNRRA account should be re-directed to help the children of Europe who had been the primary victims of the war. The British representative Noel Baker as well as LaGuardia supported this idea, and the former mayor of New York City spoke in support and "held the assembly spellbound for more than an hour so that a resolution for a children's emergency fund could be introduced before the assembly took up other questions."[53] This resolution created the United Nations International Children's Emergency Fund (UNICEF), and was passed unanimously despite objections that a dedicated fund would upset the smooth functioning of the United Nations. The name of the new organization implied that UNICEF would be a temporary organization, but the General Assembly of the United Nations voted in December 1946 to make UNICEF permanent. The UNICEF Board of Directors then appointed Rajchman as president with Maurice Pate of the U.S.as the Executive Director. In a speech given in 1985 to commemorate the founding of UNICEF, author John Charnow noted that " Rajchman was committed to building a more peaceful world and had observed that nothing could be better than starting with a permanent global partnership for children of a kind and on a scale never achieved in human history."[54]

Rajchman remained as the president of UNICEF until 1950 and, after that, continued to travel to New York for several years in the capacity of UNICEF delegate from Poland.[55] During the early days of UNICEF, Rajchman wrote a letter to his granddaughter, who had complained to him that she did not think that he had received adequate public recognition for all the important work he had one during his lifetime. He reminded her that the thing that had allowed him to be

[53] Marta Balinska, *For the Good of Humanity, Ludwig Rajchman Medical Statesman* 200.
[54] Marta Balinska, *For the Good of Humanity, Ludwig Rajchman Medical Statesman*, 201.
[55] Marta Balinska, *For the Good of Humanity, Ludwig Rajchman Medical Statesman*, 204.

effective in his work was that he had never sought recognition for his efforts. He also told her that accomplishments were not sufficient and that sacrifice and social service were required to give meaning to life. He also commented that "glorification of the individual is bound to degenerate into hypocrisy and a mendacious caricature of real values."[56]

The Formation of the World Health Organization

While the funding and projects for UNICEF were under review by the new United Nations, Rajchman was also involved in efforts to build a successor to the LON Health Organization. In 1943 in an article in *Free World* magazine, he argued for a World Health Organization (WHO) and noted that "health is the greatest commodity in the world and is purchasable at a price varying with changing economic and social conditions."[57] Rajchman conceived of a new international health organization as an independent body affiliated with, but not a part of the UN, with a mission to assist any national health service upon request. A founding principle of the new WHO was that it would "act through and not over and above individual governments."[58] Building on his years of experience at the League, Rajchman proposed that the WHO have its budget funded by a health tax of one percent of the annual health budget of each member state.[59]

There was public support for Rajchman's WHO proposal from George Strode of the Rockefeller Foundation and Dr. Charles Winslow, professor of Public Health at Yale University School of Medicine. However, conservative elements in the governments of the U.K. and the United States believed the proposal too socialist in orientation and objected to the idea of a

[56] Letter Ludwig Rajchman to Marta Babinska, 14 August 1950. Archives League of Nations, Geneva.
[57] Ludwig Rajchman. "Why Not a United Nations Public Health Service?" *Free World,* September, 1943, 216-221.
[58] Ludwig Rajchman. "Why Not a United Nations Public Health Service?", 216-221.
[59] Ludwig Rajchman. "Why Not a United Nations Public Health Service?", 216-221.

mandated level of contribution to an independent international health organization open to participation by all nations regardless of politics. Neville Goodman, an official in the British Ministry of Health and the first Deputy-Director of WHO, commented that Dr. Rajchman's proposal " was worthy of study but mostly impractical in the near future, and ignored the existence of other important bodies concerned with international health including the OIHP in Paris."[60] Former U.S. Surgeon General Dr. Hugh Cummings, who had served as a member of the LON Health Committee for many years opposed the creation of a single independent health organization. Cummings argued in a 1946 memo to the State Department that a WHO with the "participation of certain Eastern European countries would make it an instrument of Communism."[61]

Regardless of these objections, the Truman administration ultimately agreed to support the formation of a WHO but not the one percent health tax contribution, and an organizational meeting was held in New York City in June of 1946. Before the meeting, there was some international support for Rajchman to become the first director of the WHO. However, Dr. Thomas Parran, the Surgeon-General and American representative at the meeting, made it clear that the U.S. government would not support Rajchman for a leadership role because " it believed him too radical in his ideas and too efficient in their realization."[62] Norman Howard Jones, who became the first official historian of the WHO, gave a great deal of credit to Ludwig Rajchman for his work with the LON and UNICEF and decried his poor treatment by the international community during the formation of the WHO. In his 1978 book, *International Public Health Between the Two Wars,* Jones wondered, "how it was possible that Rajchman, with his unique

[60] Marta Balinska, *For the Good of Humanity, Ludwig Rajchman Medical Statesman,* 202.
[61] Marta Balinska, *For the Good of Humanity, Ludwig Rajchman Medical Statesman*, 202.
[62] Marta Balinska, *For the Good of Humanity, Ludwig Rajchman Medical Statesman*, 204.

experience, the man who was the real author of the broader conceptions of international health that developed between the two wars was never invited to participate in the consultations that led to the establishment of WHO?"[63] Jones believed that Rajchman had accomplished so much during his professional life that he was feared by those new to the scene of international health after World War II and that these, "new custodians did not wish to have their ideas disturbed or demolished by one who really knew what he was talking about."[64] It would be fair to say that Rajchman was a political victim of the Cold War during the late 1940s and 1950s, because his socialist and internationalist perspectives were viewed by conservatives in the U.S. as dangerous to the cause of Western democracy.

An example of the effect of the Cold War on Rajchman's life and career occurred during a UNICEF related trip to New York in 1956 as the Polish representative. His public statements after the war and the decision to serve as a representative for the post-war Polish government, based on patriotism and not on his support of the Communist government, had nevertheless drawn the attention of several members of the U.S. Congress. The most notable was Senator Patrick McCarran of Nevada, who chaired the Senate Internal Security Subcommittee, which had jurisdiction over matters analogous to those of the House Committee on Un-American Activities.[65] McCarran and his subcommittee colleague James Eastland of Mississippi believed Rajchman to be a communist, and under the diplomatic cover of Polish representative to UNICEF was a spy for Poland and the Soviet Union.[66] Historians, including Balinska and Jones,

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[63] Norman Howard-Jones, Norman. *International Public Health between the Two World Wars: The Organizational Problems* (Geneva: World Health Organization Press, 1978) 206.
[64] Norman Howard-Jones, Norman. *International Public Health between the Two World Wars: The Organizational Problem,* 208-209.
[65] Norman Howard-Jones, Norman. *International Public Health between the Two World Wars: The Organizational Problem,* 225.
[66] Norman Howard-Jones, Norman. *International Public Health between the Two World Wars: The Organizational Problem*,*220.*

discounted the idea that Rajchman was using his role with UNICEF to work against the interests of the U.S. and no evidence beyond his political views and public statements suggest that he was a spy. Nevertheless, when Rajchman returned to his hotel after a UNICEF meeting, an attempt was made to serve him with a subpoena to appear before the subcommittee. As an accredited diplomat, he declined to be served with the congressional subpoena. After briefly considering his situation and on the advice of diplomatic colleagues at UNICEF who suggested that he not become further involved in the hostile American political climate, he departed for France the following day and never returned to the U.S. Rajchman's daughter reported after this incident that her father was quite bitter about the attempt to force him to testify before the Senate and believed that he had been unfairly ensnared in the ongoing Communist scare in America. She noted that her father considered himself a victim of conscience as a result of his long-standing and heartfelt political and social opinions and actions.[67]

Ludwig Rajchman's lack of support for the Communist government in Poland made it impossible for him to return to his country of birth, and he and his wife lived in France until his death from the complications of Parkinson's Disease in July 1965.[68] In an interesting coincidence of history, the three men who had been instrumental in the formation of UNICEF, Rajchman, Maurice Pate and Herbert Hoover, all died within a few months of each other, and just before UNICEF was awarded the Nobel Peace Prize.[69] It was notable that reports about this award in American newspapers and magazines, including the New York Times and New Yorker Magazine, virtually omitted Rajchman's role in the formation of UNICEF.[70] The explanation for this historically inaccurate omission was never clarified. Balinska noted her opinion that the

[67] Marta Balinska, *For the Good of Humanity, Ludwig Rajchman Medical Statesman,* 225
[68] Bartok Kozusznik,"In Memorium Ludwig Rajchman MD." *Zdrow* 351.
[69] Marta Balinska, *For the Good of Humanity, Ludwig Rajchman Medical Statesman,* 232.
[70] "Johnson Praises UNICEF On Winning of Peace Prize." *New York Times*, November 4, 1965.

American government used the press to suggest that the WHO was an original idea of the U.S. and did not evolve directly from the LONHO.[71] While the desire to cast the U.S. in the best possible light during the period of the Cold War is understandable, it is also possible that politics once again conspired against Ludwig Rajchman, and because of his political beliefs and activities, denied him his rightful place in the American oriented UNICEF story.

Fortunately for Rajchman's legacy, the historical record as documented in Europe was more accurate than in the United States. Robert Debres, a prominent French pediatrician who had worked with Rajchman during the formative years at UNICEF wrote a commentary in the French daily newspaper, Le Monde, at the time of the Nobel Prize award. In his article, he documented the critical role Rajchman played in the creation of UNICEF. He also provided documentation that the WHO, rather than having been an original American concept, had been "prefigured" by LONHO.[72] As the historian of the WHO, Norman Howard Jones, accurately portrayed Rajchman's contributions to international public health and documented his pivotal roles in the formation of UNICEF and the World Health Organization. It is perhaps fair to suggest that if Rajchman had occupied himself during his career solely with his responsibilities as Director of the Health Section of the LON and UNICEF, he would have been a less controversial figure on the international scene. Maria Balinska believes that beyond all his undeniable professional achievements, Ludwig Rajchman deserves respect precisely because he was unwilling to remain silent and fought aggressively for his principles regardless of the personal cost.

[71] Marta Balinska, *For the Good of Humanity, Ludwig Rajchman Medical Statesman,* 238.
[72] Robert Debre, "Ludwig Rajchman and the League of Nations Health Organization Prefigured WHO," *Le Monde*, December 12-13, 1965, 17.

CONCLUSIONS: AN ORGANIZATION DESERVING OF RESPECT AND STUDY

There are two kinds of people in the world: those who want to be someone, and those who want to do something. Rajchman was one of the latter.

Jean Monet, remarks at the funeral of Ludwig Rajchman
July 13, 1965

This thesis has examined the work of the Health Section of the League of Nations as the world's first transnational health organization. I have argued that the traditional historiography which presented the of the League of Nations as complete failure because it did not prevent the outbreak of the Second World War is inaccurate and based on scholarship that failed to evaluate the totality of League's activities. As Susan Pedersen and Iris Bowowy successfully demonstrated, the League was a multi-dimensional organization that had many positive and important accomplishments. My contribution is to show that the successful disease prevention and public health efforts of the Health Section are an important component of these accomplishments.

This evaluation of the activities of Health Section of the League of Nations has documented the unique and valuable role that this transnational organization played in containing the spread of epidemic disease and how the League inspired attention to public health became an integral part of the security mission of the LON. I have also argued that the involvement of the League as a non-aligned international organization was critical in convincing the Soviet government to put aside some the political differences that existed with the West during the interwar period and cooperation on matters of public health.

A significant amount of this thesis has been devoted to an analysis of the work of Dr. Ludwig Rajchman who was the Medical Director of the Health Section from 1919-1939. I have described

how Rajchman utilized the internationalist sentiment of the post WWI era and mobilized the resources of the LON and the international community to control the outbreak of epidemic typhus and cholera in Eastern Poland in 1919 and prevent the spread of these diseases to Western Europe. Using primary source data contained in the archives of the League of Nations, as well as secondary sources such as journal articles, books, and contemporary newspaper accounts, I have reviewed the strategies that Rajchman and the Health Section utilized to educate the international community about the importance of public health measures and how the League's member states were encouraged and supported to organize relevant projects within their own nations. Some of these detailed measures included the development of a worldwide Epidemiological Intelligence Service, extensive League sponsored training programs in tropical medicine and infectious diseases targeted at junior doctors from member states, sponsored medical research conferences, and the international standardization and certification of laboratory services, vaccines, and serums used to treat infectious conditions.

Another important and successful aspect of the transnational approach to health-related issues was that it encouraged regular communication and in person meetings between health authority leaders from member states. These interactions helped to foster a spirit of communal responsibility and encouraged the creation of health infrastructure such as the EIS which benefited the international community at large. During the early years of the Health Section, frequent international medical and scientific meetings were convened and because they were considered "technical" in nature allowed representatives from France, Britain, and Germany to interact. I have presented evidence that these interactions contributed to the process of healing in the period that followed the Great War and helped to facilitate the reintegration of Germany into the international community. Over the course of the inter-war period, Rajchman and his

organization initiated programs that included support for on-the-ground health and disease control activities in member states, with the specific projects determined by local health authorities rather than imposed by Geneva.

This thesis discusses how the rightward shift in European politics during the 1930's and the rise of Japanese militarism damaged the work of the Health Section and the function of the LON. I discuss Rajchman's work in China and present evidence that despite his important assistance with the development of a nascent public health infrastructure, he made a serious error in judgement when he ventured beyond his medical expertise and advised Chinese leaders on political events with Japan. It was this inopportune and ill-advised venture into international politics that not only hastened Rajchman's downfall at the League but also negatively affected Japan's relationship with the League as well as the international community.

This thesis describes the impact of the appointment of Joseph Avenol as Secretary-General of the League of Nations in 1934. Unlike his predecessor Eric Drummond, Avenol was an admirer of both Nazi Germany and fascist Italy and in addition did not believe in the work of the Health Section. This placed Avenol at odds with Ludwig Rajchman who was not only a devoted socialist and believer in human rights but also a man who had spent nearly twenty years building an organized and integrated international public health network. These deeply held opinions led to Rajchman's continued advocacy of League support for the Chinese plan to develop a public health infrastructure and for more Western investment to help China become a modern nation. During these years, he also expressed frequent public criticism of the policies of Germany, Italy, and Japan which caused embarrassment for the League and were outside of his area of official responsibility.

I have described how the internal politics at the League, and Rajchman's continued involvement in political matters unrelated to public health, provided the Secretary-General with the excuse to dismiss Rajchman as Medical Director in 1939. I have also shown that Rajchman remained relevant during the war as he successfully raised money and used his international contacts to have food and supplies delivered to Poland in 1942, which saved many children as well as adults from starvation.

Following the end of the war, Rajchman continued to be involved with refugee assistance, was instrumental in the establishment of UNICEF, and served as its first president. He also played a pivotal role in the development of the WHO, although for political reasons, the U.S. would prevent him from having a formal role in the organization. Rajchman's extensive involvement in the birth of the WHO and input into its organizational structure and mission would not become public knowledge until after his death in 1965.

This thesis has argued that the Health Section of the LON is historically significant and relevant because it was the first transnational health organization and one of the League's most effective technical components. Despite the noteworthy accomplishments of the Health Section, the historiography on this subject remains limited and opportunity exists to add to the historical record regarding the work of the Health Section. The connection between the Health Section and the post-WWII activities of the United Nations, the World Health Organization and UNICEF also deserve further study.

In a 1948 speech to the House of Commons, Winston Churchill stated that "those who fail to learn from history are condemned to repeat it."[1] When Churchill made those remarks, he was not specifically referring to health related concerns. Nevertheless, the coronavirus epidemic of 2020

[1] Winston Churchill, Speech to the House of Commons, London, March 5, 1948.

provides a contemporary example of the need to learn from the past and foster a cooperative transnational approach to the solution of health problems that impact the entire human race. While we do not know as yet how this infection will ultimately play out, there is no doubt that nations need to coordinate their efforts and use all the available tools of contemporary science, technology and communication in a modern example of the manner in which Dr. Ludwig Rajchman, the Health Organization and the entire League of Nations addressed the typhus epidemic of 1919-1922 and the public health crises that followed.

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