

3 The Language of Health Administrations

The League of Nations Epidemiological Intelligence Service

The end of World War I offered a new opportunity for the Rockefeller Foundation to bring public health statistics onto the international political stage. The signing of the Treaty of Versailles (1919) and the establishment of the League of Nations (1920) marked the start of a new era of internationalism based on a nation-state system that provided an institutional framework for international collaboration.¹ The countries that emerged victorious from the war responded favorably to calls from various socioeconomic sectors to initiate international collaboration to resolve the problems created by industrialization. In so doing, they hoped to contain the Bolshevik Revolution by offering an alternative to Marxist internationalism.² The League of Nations, founded as part of this wave, was conceived as a platform for member countries to coordinate with one another, and public health matters were among the topics for coordination. Specifically, the League's first public health mission was in response to the Polish government's request for assistance in combating the typhus epidemic raging through Eastern Europe and Russia after the war. That mission contributed to the decision, in 1922, to create a permanent health organization within the League of Nations – what would become the League of Nations Health Organization (LNHO).³

The Rockefeller Foundation was also active in Europe immediately after World War I, carrying out health philanthropy in several European countries.⁴ The LNHO's intergovernmental nature provided the Foundation with the legitimacy it needed to collect and communicate

¹ For discussions on nationalism and internationalism, see, e.g.: Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism* (London: Verso, 2006); Isabella Löhr and Roland Wenzlhuemer, eds., *The Nation State and Beyond: Governing Globalization Processes in the Nineteenth and Early Twentieth Centuries* (Heidelberg: Springer, 2013); Sluga, *Internationalism in the Age of Nationalism*.

² Sluga, *Internationalism in the Age of Nationalism*, 45, 50.

³ The Provisional Health Committee met for the first time in August 1921. The decision to create a permanent organization was formalized in 1922.

⁴ Ludovic Tournès, *Les États-Unis et la Société des Nations (1914–1946): le système international face à l'émergence d'une superpuissance* (Bern: Peter Lang, 2016), 154–5.

vital and health statistics in different countries: statistics could be used to grasp the latest epidemiological developments, although most governments considered such information too sensitive to share with other governments. The Foundation, in parallel to its investments in the Johns Hopkins School of Public Health (JHSPH) and the Peking Union Medical College (PUMC) – neither of which provided the opportunity to collect international statistics – earmarked funding for an epidemiological intelligence and public health statistics service (hereafter, “epidemiological intelligence service”) within the LNHO.

This chapter will focus on the LNHO and its epidemiological intelligence service, which represented a crucial circuit through which epidemiological reporting practices were transferred from the LNHO’s headquarters in Geneva to other parts of the world, which then reported back to Geneva. This service has already attracted some scholarly attention. Historians have written about the LNHO’s institution-building, the service’s technological infrastructure, and the influence of geopolitics on the service.⁵ This chapter complements such work by examining the LNHO’s efforts to standardize statistical practices. Officially inaugurated in 1923, the LNHO’s epidemiological intelligence service was responsible for promulgating standardized procedures for statistical collection and advocating that member countries integrate statistical collection into their health authorities. The LNHO’s first director-general, Ludwik Rajchman, had a clear aim in doing so: instead of focusing on advancing science or forging diplomatic regulations like the service’s predecessors (i.e. the International Statistical Institute [ISI] and Office international d’hygiène publique [OIHP]),⁶ the LNHO was to concentrate on convincing national health administrations to integrate standardized statistical practices into their operations. The endeavor quickly made an impact. As early as 1926, the epidemiological intelligence service was covering five continents, with 116 countries providing epidemiological information on plague, cholera, yellow fever, typhus, smallpox and more, as well

⁵ See, e.g.: Lenore Manderson, “Wireless War in the Eastern Arena: Epidemiological Surveillance, Disease Prevention and the Work of the Eastern Bureau of the League of Nations Health Organisation,” in *International Health Organisations and Movements, 1918–1939*, ed. Paul Weindling (Cambridge: Cambridge University Press, 1995), 109–33; Borowy, *Coming to Terms with World Health*, sec. II; Heidi J. S. Tworek, “Communicable Disease: Information, Health, and Globalization in the Interwar Period,” *The American Historical Review* 124, no. 3 (2019): 813–42.

⁶ On the ISI and OIHP’s endeavors in this regard, see, e.g.: Brian, “Statistique administrative et internationalisme statistique pendant la seconde moitié du XIXe siècle”; Huber, “The Unification of the Globe by Disease? The International Sanitary Conferences on Cholera, 1851–1894.”

as statistics on birth rates and general and infant mortality in 696 cities.⁷ The service was also the longest-living function within the LNHO, surviving World War II to set the example for the WHO's statistical work.

The LNHO's epidemiological reporting system provides insights into the relationship between statistics and authorities at the international level. Reflecting Theodore Porter's argument that quantification is often the resort of authorities vulnerable to outsiders,⁸ in this chapter I show how the LNHO's founding members used statistics to establish the organization's authority when it came to international health collaboration. LNHO staff set statistical reporting standards on a purely administrative level, without attempting to enforce compliance or claiming to be scientific.⁹ Their goal was to teach national health administrations to speak the language of statistics.

The epidemiological intelligence service eventually brought together various regional authorities within a single platform for sharing epidemic statistics. The system was not established all at once but was a patchwork that grew out of negotiations with myriad stakeholders all over the world. As this chapter will detail, the service had to negotiate both with other organizations and government authorities. In Asia, where most polities were under European colonial rule, the LNHO positioned itself as an alternative to the European-led OIHP. In doing so, the LNHO sought to collaborate with countries such as China that were suspicious of imperial influence. The making of a statistical reporting system added another layer to the LNHO's aim to construct an inter-colonial medical system, as convincingly illustrated by Tomoko Akami.¹⁰ While Akami describes how the LNHO integrated and utilized an existing inter-colonial network, the Far Eastern Association of Tropical Medicine, this chapter, with a focus on the LNHO's statistical reporting system, will demonstrate that the LNHO also sought to bring solutions directly to the local authorities, transcending the colonial system in the region.

⁷ International Health Board, "Minutes of the International Health Board: Working Program for 1927," April 11, 1926, 26386, RF/1.1/100/20/164, Rockefeller Archive Center.

⁸ Porter, *Trust in Numbers*, 8.

⁹ The LNHO did use statistics for scientific activities outside its reporting system. The case of Yves Biraud and the approval of the Bacillus Calmette–Guérin (BCG) vaccine is a telling example. See Chapter 2 and Rosenberg, "The International Politics of Vaccine Testing in Interwar Algiers."

¹⁰ Tomoko Akami, "A Quest to be Global: The League of Nations Health Organization and Inter-Colonial Regional Governing Agendas of the Far Eastern Association of Tropical Medicine 1910–25," *The International History Review* 38, no. 1 (2016): 1–23. For other discussions regarding colonial health, its relation with the international health, see, e.g.: Anderson, *Colonial Pathologies*; Packard, *A History of Global Health*.

I will conclude by spotlighting the Chinese context, to show how the LNHO's statistical standards were received and implemented at the country level – in particular, how the Chinese Nationalist government saw the LNHO's statistical work as a means of recovering the sovereignty the country had lost under the unequal treaties imposed on it.¹¹

The Origins of the LNHO Epidemiological Intelligence Service

When the League of Nations established a special commission to contain the typhus epidemic in Eastern Europe, it soon became clear that there was a dire need for vital and health statistics to be standardized across countries.¹² Composed of well-known public health experts – with Ludwik Rajchman, the founder of Poland's first bacteriological laboratory,¹³ at the helm – the commission sent a team to visit Russia and Ukraine to collect statistics on typhus and malaria prevalence rates in 1921.¹⁴ This was when the League's experts came to acknowledge the barriers preventing epidemiological information from being useful in different countries. Every country had its own procedure for recording births and deaths. There was no centralized intergovernmental channel for health statistics: the OIHP collected epidemiological information only from its member countries, and the League of Red Cross Societies obtained epidemic reports through unofficial channels.¹⁵ Most national authorities acquired numbers on epidemic cases through diplomatic channels, and some from colonial offices.¹⁶

The League was quick to include statistics within its purview. In 1921, the League's First Provisional Health Committee agreed to integrate the

¹¹ On the Chinese government's strategies for recovering sovereignty, see, e.g.: Kirby, "The Internationalization of China."

¹² Although the main target was typhus, the League of Nations also gathered information on other epidemics, such as cholera and relapsing fever (see Borowy, *Coming to Terms with World Health*, 88).

¹³ Tournès, *Les États-Unis et la Société des Nations (1914–1946)*, 150.

¹⁴ Paul Weindling, "German Overtures to Russia, 1919–1925: Between Racial Expansion and National Coexistence," in *Doing Medicine Together: Germany and Russia between the Wars*, eds. Susan Gross Solomon, German and European Studies 4 (Toronto: University of Toronto Press, 2006), 43–4. The commission included Emil Roesle, of the German Imperial Office of Health, and Norman White, then the assistant director-general of the Indian Medical Service, to name just two of its more prominent members.

¹⁵ League of Nations, "The League of Nations Provisional Health Committee Minutes of the First Session," August 25, 1921, 18–21, C.400. M. 280.1921.III, League of Nations Archives.

¹⁶ *Ibid.*, 18–21.

statistical bureau of the League of Red Cross Societies,¹⁷ and later that year, the League of Red Cross Societies transferred the entire bureau – including its adding machines, reports, and statistician Knud Stouman – to the League.¹⁸ The OIHP and LNHO subsequently reached an agreement to share epidemiological information. The LNHO thus acquired the capacity to issue epidemiological reports and became part of the channels for epidemic case reporting.

The typhus control commission to Eastern Europe and the ensuing Warsaw Conference, in Spring 1922, further consolidated the consensus that international collaboration was needed to contain epidemics, that health information should be shared among countries,¹⁹ and that the LNHO would be in charge of carrying out the decisions made during the conference.²⁰ This consensus was crystalized into an agreement signed by the People's Health Commissariats of the Russian, Ukrainian, and White Russian Republics, and the League's representative.²¹ The decisions cemented statistical surveys on Eastern European epidemics and policy suggestions as the LNHO's two core missions.²² Notably, the Warsaw Conference was first and foremost European. Its official name was the European Health Conference, and it included representatives from twenty-six European countries, with Turkey and Japan being the only non-European participants.²³

The LNHO's ambition to become the center of international epidemic statistics reporting went beyond typhus in Eastern Europe. To advance that aim, Rajchman, then the LNHO director-general, sought funding from the Rockefeller Foundation to found the epidemiological intelligence service within the LNHO.²⁴ Underscoring the need for international cooperation, Rajchman justified the need for the Service to

¹⁷ Ibid.

¹⁸ Claude H. Hill, "To Eric Drummond," October 20, 1921, 12B/16902/14212/R823/1921, League of Nations Archives.

¹⁹ League of Nations, "European Health Conference Held at Warsaw from March 20th to 28th, 1922," April 3, 1922, 11. <http://archive.org/details/europeanhealthco00euro>.

²⁰ Ibid., 8.

²¹ Norman White, "Agreement between the LNHO and People's Health Commissariats of the Russian, Ukrainian and White Russian Republics," May 1, 1922, 12B/20492/20492/R830/1922, League of Nations Archives.

²² Wickliffe Rose, "To Rajchman," July 31, 1922, 12b/21836/21836/R839/1923, League of Nations Archives.

²³ League of Nations, "European Health Conference Held at Warsaw from March 20th to 28th, 1922," 4.

²⁴ Rajchman also requested that the IHB fund health worker exchange programs (League of Nations, "C.H.16, Correspondence Between the Health Section of the Secretariat and the Rockefeller Foundation," July 10, 1922, 12b/21836/21836/R839/1922, League of Nations Archives).

Wickliffe Rose, director of the Rockefeller's International Health Board (IHB), in the following manner:

In order to secure such cooperation [real collaboration in various health administrations], it is necessary, on the one hand, to prove the usefulness and efficiency of the international public health work and, on the other hand, to lay foundations on which a spirit of cooperation may be built up. ... Epidemiological Intelligence and Public Health Statistics ... would demonstrate the practicability and the indispensability of international health work.²⁵

Rajchman's views on the role of the future statistical service thus went beyond the practicalities of epidemic control and extended to laying a foundation for "a spirit of cooperation." By exchanging statistical information, countries were expected to generate a consensus to serve as the basis for cooperation in public health.

The LNHO's proposal was attractive to the trustees of the IHB, not only because it promised to promote collaboration among countries in line with the IHB's ethos, but also because it was not politically sensitive. The Warsaw Conference resolutions had demonstrated that European countries widely accepted the necessity of exchanging information on epidemics, and there was no risk that the IHB's involvement would be viewed as political interference. Nor would it be difficult to attract financial support from governments to supplement (and eventually replace) the Rockefeller funding. This was a necessity for the Rockefeller Foundation, and the reason why its funding was always contingent on there being a demonstration element.²⁶ Specifically, the Foundation only provided financial aid to initiate a given program when there was the possibility of demonstrating its effectiveness to local authorities and inducing them to take over the program in question.²⁷ The aid provided to the LNHO epidemiological intelligence service was no exception. Rose explicitly stressed the importance of the demonstration principle to Selskar Gunn, the director of the Europe Office of the Rockefeller Foundation and the man in charge of coordination between the LNHO and the Foundation:

The Board is disposed to aid the League in maintaining [the epidemiological intelligence service] for a period of five years with a view to demonstrating its usefulness. It is to be hoped that within that time it will have become so

²⁵ Ludwik Rajchman, "To Wickliffe Rose," May 2, 1922, 4, 12b/21836/21836/R839/1922, League of Nations Archives.

²⁶ League of Nations, "C.H.16, Correspondence Between the Health Section of the Secretariat and the Rockefeller Foundation," 6.

²⁷ Darwin H. Stapleton, "Malaria Eradication and the Technological Model: The Rockefeller Foundation and Public Health in East Asia," in *Disease, Colonialism, and the State: Malaria in Modern East Asian History*, ed. Ka-Che Yip (Hong Kong: Hong Kong University Press, 2009), 71–84.

serviceable that the governments which are supporting it will regard it as indispensable and will provide the funds necessary for its continuance and further development.²⁸

The IHB trustees agreed, in May 1922, to fund the LNHO's epidemiological intelligence service over a period of five years.²⁹ And despite Rose's emphasis on the demonstration principle, the IHB continued to provide supplementary funding after the five years were over.³⁰ In the original agreement, the IHB granted \$32,000 to the service for the period from 1923 to 1927.³¹ That pledge was later renewed, and the IHB eventually added more grants for "special work in vital and public health statistics" and the "Epidemiological Bureau in the Far East."³² At the end of 1927, the IHB again renewed its financial endorsement for another seven years. From 1923 to 1929, a total of \$350,700 was granted to the service. Despite some changes in the sums accorded, the Rockefeller Foundation's financial support to the service lasted until 1937.³³

With the Rockefeller Foundation's support, Rajchman devised the epidemiological intelligence service as an independent entity based in Geneva and focused on harmonizing national health administrations' practices regarding the collection and reporting of vital and health statistics. Rajchman's plan can be understood, in part, as a competition for authority with the United Kingdom, by that time the most advanced country when it came to vital and health statistics. This can be seen in the fact that Rajchman and the majority of the League of Nations Health Committee (which acted as the LNHO's executive body) rejected two proposals from Sir George Buchanan, a committee member who was a senior officer at the British Ministry of Health. Buchanan's first proposal was for the British ministry, as well as those of the United States and Italy, to offer expertise to the epidemiological intelligence service, as these countries were pioneers in statistical practices for health administration and research. In response, Rajchman expressed the desire to take preliminary steps to

²⁸ Wickliffe Rose, "To Gunn," November 12, 1922, 12b/26222/21836/R839/1923, League of Nations Archives.

²⁹ The IHB also agreed on funding the LNHO's health personnel exchange programs (Wickliffe Rose, "To Arthur Sweetser," Private, July 27, 1922, 12b/26117/21836/R839/1923, League of Nations Archives).

³⁰ International Health Board, "League of Nations Health Section," December 13, 1933, 33340, RF/1.1/100/20/164, Rockefeller Archive Center.

³¹ Tournès, *Les États-Unis et la Société des Nations (1914–1946)*, 160.

³² International Health Board, "Minutes of the International Health Board: Working Program for 1926," June 11, 1924, 24341, RF/1.1/100/20/164, Rockefeller Archive Center.

³³ Tournès, *Les États-Unis et la Société des Nations (1914–1946)*, 170.

appoint a Geneva-based director of the service, without going through time-consuming consultations with three governments, as Buchanan had proposed.³⁴ Buchanan's second proposal was to devise the epidemiological intelligence service as a research institute for conducting epidemiological investigations in different countries. This proposal was also rejected, and Rose instructed Gunn that the IHB grant was intended to create an independent center for epidemiological intelligence, rather than to sponsor such an institute.³⁵ By rejecting Buchanan's proposals, the LNHO retained centralized control over its epidemiological intelligence service.

Despite the conspicuous influence of the IHB in formulating the LNHO's plan of action, IHB officers Rose and Gunn endeavored not to reveal the power dynamics at play, so as to avoid the LNHO's member countries accusing them not only of providing the money but also of leading the work.³⁶ Rose therefore refused to send a Rockefeller representative to attend Health Committee meetings, in order to maintain a purely financial relationship between the IHB and the LNHO.³⁷ The appointment of Edgar Sydenstricker as director of the epidemiological intelligence service was also a source of concern for Rose and Gunn. Upon reading the minutes of the Health Committee meeting in which Rajchman presented his choice of Sydenstricker and mentioned Rose's support for his candidacy, Gunn wrote to Rajchman assuring him that Rose had suggested Sydenstricker without any outside pressure whatsoever and noted that Rose was afraid of giving the impression that the Rockefeller Foundation was directing the work of the LNHO through its financial support.³⁸ Rajchman explained in response that he was aware of the IHB's position, which was why he had also cited the support of Hugh Cumming of the United States Public Health Service (USPHS) for Sydenstricker, to disguise the fact that his choice was based entirely on Rose's recommendation.³⁹

Despite Rose and Gunn's repeated denials, it was clear that Rockefeller funding affected the LNHO's statistical policies more than the IHB was willing to admit. From the very beginning, most of the statisticians at the epidemiological intelligence service were either American public health

³⁴ League of Nations, "Minutes of the Fourth Session Held at Geneva, August 14th to 21st, 1922," September 1, 1922, 40–1, 12B/26449/126/R811-2/1923, League of Nations Archives.

³⁵ Wickliffe Rose, "To Gunn," November 12, 1922.

³⁶ Selskar Gunn, "To Rajchman," December 11, 1922, 12b/26222/21836/R839/1923, League of Nations Archives.

³⁷ *Ibid.*

³⁸ Selskar Gunn, "To Rajchman," December 5, 1922, 12b/26222/21836/R839/1923, League of Nations Archives.

³⁹ Ludwik Rajchman, "To Gunn," December 7, 1922, 12b/26222/21836/R839/1923, League of Nations Archives.

officials or health statisticians educated in the United States. For more than two decades, because these American or American-educated statisticians endeavored to implement statistical practices in the health administrations of the League's member states, the American public health system had considerable visibility, despite the United States not being a member of the League. In addition, along with the Milbank Memorial Fund, the Rockefeller Foundation financed American officers' travel expenses when they went to Europe to participate in LNHO conferences, and owing to that support, American public health officers were included in discussions about international standards regarding health statistics, including the International List of Causes of Death (ICD).⁴⁰

Harmonizing Statistical Practices Across National Health Administrations

Once the institutional framework for the epidemiological intelligence service was decided upon, all that remained was to recruit the personnel to put the blueprint into practice. Representatives of the Rockefeller Foundation, Rajchman, and the League of Nations Health Committee all agreed that the director of the new service should be given free rein to organize its missions. They aimed to recruit a highly qualified expert who came recommended by renowned experts in the field.⁴¹ The choice was between Edgar Sydenstricker, the first statistician at the USPHS, and Major Greenwood, a well-known, Pearson-trained statistician and researcher at University College, London. Although Greenwood had an excellent reputation in the field of epidemiological research, Sydenstricker's candidacy prevailed because he had the support of the Rockefeller Foundation, as mentioned above. In a letter, Rose stated that Sydenstricker was the "best man in [the United States] for this post," as he had built up the statistical office of the USPHS.⁴² But he also forwarded references from Hugh Cumming (the chief of the USPHS) and Raymond Pearl (another well-known, Pearson-trained biostatistics professor, at the JHSPH) to support Sydenstricker's candidacy.⁴³ Upon Rose's forceful recommendation, Rajchman borrowed Sydenstricker from the USPHS for one year.⁴⁴

⁴⁰ LNHO, "Report to the Council on the Work of the Twenty-First Session of the Health Committee," June 7, 1934, 2, C.283.M.97.1934.III, League of Nations Archives.

⁴¹ League of Nations, "Minutes of the Fourth Session Held at Geneva, August 14th to 21st, 1922."

⁴² Wickliffe Rose, "To Rajchman," July 18, 1922, 12b/26117/21836/R839/1923, League of Nations Archives.

⁴³ Ibid.

⁴⁴ Ludwik Rajchman, "To Gunn," December 7, 1922, 12b/26222/21836/R839/1923, League of Nations Archives.

Sydenstricker's work at the epidemiological intelligence service was intensive, as he had only a one-year assignment (with a two-month extension) to complete it. He devised the service to manage epidemiological information sent in by the LNHO's member states. Instead of seeking to advance the general statistical ability of officials, Sydenstricker prioritized the standardization of the statistical collection procedures used by national health authorities. The remarks of an outside observer at the time provide a good illustration of Rajchman and Sydenstricker's strategy in standardizing statistical practices: Major Greenwood complained that the LNHO's statistics programs were superficial. He wrote to his friend and colleague Raymond Pearl:

Far too much of the Rockefeller money is spent in violently dashing about Europe having buns with the "best people" and drawing up programmes of futile get-learned-quick courses. If you and I would only draw up a nice little course THE Whole THEORY AND PRACTICE OF VITAL STATISTICS MEDICAL STATISTICS AND BIOMETRY, COMPLETE IN SIX REELS WITH INCIDENTAL MUSIC, the film rights would make us rich men.⁴⁵

Despite its sarcastic tone, Greenwood's criticism does shed light on the LNHO's strategy for implementing statistical practices in its member states' health administrations: the organization sought to quickly convince national health authorities to implement statistical practices and harmonize them across countries. The epidemiological intelligence service had no intention of providing complete training to health statisticians. For that reason, the LNHO turned down Greenwood's proposal for an international school in Geneva.⁴⁶ Pearl, the founding director of the Rockefeller-funded biostatistical department of the JHSPH, also confessed to Greenwood after a meeting with Sydenstricker that he could not "work up any enthusiasm at all about these international statistical policies."⁴⁷

In concrete terms, Sydenstricker's plan was to create fora and channels for various countries' health statisticians to become familiar with each other's practices. After three months spent traveling to confer with statisticians in London, Paris, and Brussels, he submitted a memorandum to the League of Nations Health Committee in February 1923 in which he listed the major goals for the Service: put succinctly, these were

⁴⁵ Original capitalization. Major Greenwood, "To Raymond Pearl," August 5, 1923, Greenwood, Major (2) 1923/i, Raymond Pearl Papers, American Philosophical Society.

⁴⁶ Pearl, "To Major Greenwood," September 17, 1923, Greenwood, Major (2) 1923/i, Raymond Pearl Papers, American Philosophical Society.

⁴⁷ Raymond Pearl, "To Major Greenwood," April 12, 1924, Greenwood, Major (3) 1924, Raymond Pearl Papers, American Philosophical Society.

to publish epidemiological reports and to standardize statistical practices among health authorities.⁴⁸ The key to both missions was to make health officials aware of the importance of using statistics to communicate. Sydenstricker then defined two approaches to achieving these goals: first, publishing handbooks presenting every member state's statistical practices; and second, organizing collective studies and exchange programs for national health statisticians. Although Sydenstricker was the author of both approaches, they were also in line with Rajchman's original proposal, which emphasized the promotion of mutual understanding among countries in order to advance international collaboration. Tellingly, the collective studies and exchange program that Sydenstricker put forward were already part of Rajchman's proposal to the IHB in 1922.

Sydenstricker's first approach was to devise handbooks to serve as guidelines for statisticians wishing to use a given country's statistical data. These handbooks formatted local know-how on vital and health statistics collection. Sydenstricker mandated two statisticians from the United Kingdom, Major Greenwood and Major Edge, to compile statistical handbooks on "significant" countries (i.e. European and North American countries). Work on other countries' handbooks was done directly by statistical officials from the countries in question. Although every handbook had a different author, they all had the same table of contents. Each handbook started by giving basic information about the country, followed by a historical background of the official machinery for collecting vital statistics. Afterwards, a detailed description was offered on the procedure for registering births, marriages, and deaths, including official forms, job titles of responsible officers, and the relevant civil laws on the protection of personal information. Finally, each handbook ended with a chapter dedicated to the country's epidemic reporting system and health statistics, allowing for a basic understanding of vital and health statistics in the country. By providing essential knowledge about statistical practices in different countries, the handbooks served as dictionaries of a sort that helped health officials decipher statistical data from the country in question.

Sydenstricker's second approach was to organize study groups and exchange programs for government health statisticians, through which national statistics officers could share their experiences and agree upon

⁴⁸ Edgar Sydenstricker, "Annex 5. The Work of the Service of Epidemiological Intelligence and Public Health Statistics, Minutes of the First Session Held at Geneva, February 11th to 21st, 1924," February 14, 1924, 103, C.10.M.7.1924 III, League of Nations Archives; International Health Board, "IHB Minutes: League of Nations – General Policy and Interchanges," May 20, 1924, 24128, RF/1.1/100/20/164, Rockefeller Archive Center.

a standard procedure for collecting and analyzing statistics. When studied closely, Sydenstricker's network of statistics officials was not homogeneous but was organized into tiers based on countries' varying levels of statistical capacity (See Figure 3.1).

The top tier officials were exclusively from Western Europe, Scandinavia, and North America.⁴⁹ They were invited by the LNHO to take part in study groups and commissions to draft international standards regarding vital statistics collection. In 1924, the epidemiological intelligence service established four study groups on joint causes of death, standard million population, age and sex classification, and stillbirths, respectively. Each group comprised four to five statistical experts working for either national health authorities or research institutes, while the epidemiological intelligence service served as the secretariat of these groups and was in charge of correspondence among participants.⁵⁰ The study groups included some of the best known statisticians at that time, such as Raymond Pearl of the JHSPH, Emile Roesle of the German Imperial Office of Health, and Henri Methorst, then director of the Central Statistical Bureau of the Netherlands and the permanent bureau of the ISI. After a year of correspondence, the four study groups compiled memoranda that served as discussion materials for statistician exchange programs: the second tier of Sydenstricker's network.

Sydenstricker devised this second tier to consist of national statisticians from LNHO member states – ranging from Eastern Europe to Latin America – whose statistical practices were not well recognized by the organization.⁵¹ The LNHO invited these statisticians to participate in exchange programs so that they could be included in discussions on standards prepared by the participants of the study groups (the top tier). Sydenstricker also proposed making the second-tier statisticians intermediaries between the LNHO and their respective national health authorities. Citing a Provisional Health Committee resolution, Sydenstricker

⁴⁹ The nationalities of the seventeen experts involved in the study groups were: Austrian, Canadian, Danish, French, German, Italian, Dutch, Swedish, Swiss, British, and American (LNHO, "Health Committee: Minutes of the Fourth Session," April 1925, 89–92, C.224.M.80,1925, III., League of Nations Archives).

⁵⁰ Otto R. Eichel, "C.H.241, Work of the Epidemiological Intelligence Service," September 29, 1924, C.588.M.202.1924II, League of Nations Archives.

⁵¹ The participating countries in the first session were: Brazil, Bulgaria, Czechoslovakia, Hungary, the Kingdom of Serbs, Croats and Slovenes, Norway, Poland, and Russia. Countries participating in the second session largely overlapped with those of the first: Bulgaria, Cuba, Czechoslovakia, Estonia, Hungary, Romania, Russia, the Kingdom of Serbs, Croats and Slovenes, and Ukraine (LNHO, "Health Committee: Minutes of the Fourth Session," 92; Edgar Sydenstricker, "Annex 5. The Work of the Service of Epidemiological Intelligence and Public Health Statistics, Minutes of the First Session Held at Geneva, February 11th to 21st, 1924," 111).

wrote that one of the purposes of exchange programs was to strengthen ties between the epidemiological intelligence service and member states' statisticians.⁵²

The first two exchange programs took place in 1923 and 1924. Participants were to introduce their local practices to the LNHO statistical forum with the goal of reaching a consensus, and then apply that consensus to their own health administrations. In both sessions, participants presented their own statistical practices; Sydenstricker and statistical experts from Western Europe then offered comments based on the presentations. The LNHO later organized a trip for participants to visit countries with advanced public health administrations, i.e. the Netherlands, Switzerland, France, and the United Kingdom. The exchange program participants then exchanged views once more in Geneva after the trip and submitted final reports to the LNHO. Both sessions succeeded in raising officials' awareness, but no concrete standard for statistical collection was agreed upon. The only consensus reached during these two sessions was that procedures for collecting statistical data were extremely varied across countries and special efforts would be needed to standardize them.⁵³

The third exchange program differed from its antecedents on two counts. First, the participants in the third session were all chief statistical officers from countries with more advanced statistical practices.⁵⁴ Most had been involved in the study groups or had briefed the participants of the two previous sessions. Second, the destination for the exchange was the Scandinavian countries, rather than the Western European countries visited in the previous programs. Knud Stouman, a member of the LNHO's statistical staff, recruited participants and selected the destination based on the particular nature of Scandinavian vital statistics work.⁵⁵ The Scandinavian countries had their own list of the causes of death and were preparing to revise it in 1926. Stouman argued that because the Scandinavian countries had well-trained medical officers but had not implemented the ICD, they were the ideal site for a demonstration.⁵⁶

⁵² Sydenstricker, "Annex 5. The Work of the Service of Epidemiological Intelligence and Public Health Statistics, Minutes of the First Session Held at Geneva, February 11th to 21st, 1924," 111.

⁵³ *Ibid.*, 111–14; LNHO, "Health Committee: Minutes of the Fourth Session," 92.

⁵⁴ LNHO, "Health Committee: Minutes of the Fifth Session," October 1925, 67, C.647, M.236, 1925, III., League of Nations Archives.

⁵⁵ Knud Stouman, "Note on International Nomenclature of Causes of Death," January 16, 1925, 13, 12b/34767/32528/R920/1924, League of Nations Archives.

⁵⁶ Knud Stouman, "Memorandum on Expert Groups on Comparability of Mortality Statistics," January 16, 1925, 13, 12b/34767/32528/R920/1924, League of Nations Archives.

Stouman's reasoning is illustrative of the LNHO's ambition to include the Scandinavian countries within the network of its epidemiological intelligence service, making it the real center of all international vital and health statistical reporting.

The third exchange ended with an eight-session conference organized by the LNHO in Geneva, during which a set of resolutions was issued that contained recommended standard procedures for collecting and analyzing vital and health statistics. The conference also set the ground rules governing the division of labor between statisticians and medical doctors in terms of vital statistics collection. This time, the participants succeeded in reaching a consensus on statisticians' role in compiling vital and health statistics. A statement made by S. Rosenfeld, Chief of the Statistical Bureau of the Health Administration of Austria, was illuminating as to the statisticians' stance. He quoted Jacques Bertillon, the author of the original classification of causes of death, who had once said it "was necessary for statisticians to have confidence in their work." Rosenfeld went on to stress that "the work of statisticians [had] already [shown] that it was possible to establish general rules for the tabulation of statistics."⁵⁷ As for statistical collection, he made the suggestion (which met with approval) that doctors should be put in charge of recording causes of death among their patients (i.e. serve as witnesses of the facts), whereas statisticians were to be responsible for observing general statistical regularities in deaths.⁵⁸ It was also agreed that statisticians should not be considered medical professionals but should nonetheless be included in discussions of medical problems. This division of labor laid the foundation for the LNHO's subsequent statistical endeavors. Over the following decades, the LNHO established a commission of expert statisticians to implement statistical methods into studies on cancer, the BCG vaccine, and morbidity, among others.

No known sources specify the extent to which the participating countries adopted the statistical standards promoted during the three exchange sessions. Nevertheless, the exchanges clearly did inform governments of the importance of communicating their statistics to the epidemiological intelligence service. The League of Nations Health Committee began to receive epidemiological reports in 1924 that covered a larger geographical range

⁵⁷ LNHO, "The Third Collective Study of Medical Statistics, Final Conference, Provisional Minutes of Fourth Meeting," August 24, 1925, 8, C.S.III/P.V.6, League of Nations Archives.

⁵⁸ *Ibid.*, 11.

Table 3.1 LNHO tiered network for statistical standards

	First tier	Second tier
Composition	<ul style="list-style-type: none"> • Officials and researchers from Western Europe, Scandinavia and North America 	<ul style="list-style-type: none"> • Statisticians from LNHO member states where local statistical practices were not well recognized
Part played in LNHO statistical work	<ul style="list-style-type: none"> • Compile statistical handbooks on “significant” countries • Participate in study groups and commissions • Prepare discussion materials for exchange programs • Participate in third exchange program 	<ul style="list-style-type: none"> • Compile statistical handbooks on their respective countries • Participate in first and second exchange programs

than the OIHP reports.⁵⁹ In 1926, the reports published by the service came from five continents, with 116 countries providing epidemiological information on plague, cholera, yellow fever, typhus, smallpox, birth rates, infant mortality, and more, in a total of 696 cities.⁶⁰ In 1927, member states were reportedly satisfied with the LNHO’s epidemiological reports.⁶¹ Public health schools, including those at Johns Hopkins and Harvard University, included the LNHO’s monthly reports in their syllabi.⁶²

It is worth noting that George Buchanan remained an unflagging critic of the reports. His criticism of the use of maps to represent epidemic cases is illustrative of ongoing rivalries when it came to epidemiological reporting. Specifically, he complained that using maps – which provided information at a glance – would be unfair to the United Kingdom. As a country that boasted one of the best-organized epidemic reporting systems in the world, he claimed that such maps would give the misleading impression that the United Kingdom had more epidemic cases than other countries just because its reporting system was robust and

⁵⁹ LNHO, “Minutes of the Health Committee First Session,” February 11, 1924, C. 10. M. 7. 1924. III, League of Nations Archives, cited in: Borowy, *Coming to Terms with World Health*, 107.

⁶⁰ International Health Board, “Minutes of the International Health Board: Working Program for 1927,” 26386.

⁶¹ LNHO, “Health Committee Ninth Session,” March 1927, 22, C. 107. M. 38. 1927. III, League of Nations Archives.; “Health Committee 19th Session,” October 10, 1932, 14–15, C. H./19 session/P.V., League of Nations Archives.

⁶² LNHO, “Health Committee 19th Session,” 14–15.

covered more territory. Once again, Buchanan's views were at odds with the position of other members of the Health Committee.⁶³ Buchanan's remark nonetheless pointed to a crucial lingering question when it came to statistical reporting: whether increasing numbers could be taken at face value, or whether they were the result of increased attention or capacity when recording cases.

The LNHO Takes Over the Revision of the ICD

The epidemiological reporting discussed above is illustrative of the tiered system within which statisticians of different countries were given an uneven say in dictating statistical collection procedures. Similarly, the evolution of the LNHO's ICD highlights the ambitions of individual countries and Europe-based international organizations to gain influence. As early as 1923, the LNHO's three statisticians – Edgar Sydenstricker, Otto R. Eichel, and Knud Stouman – took ICD revisions into account as part of their efforts to standardize vital statistics collection, despite the fact that the ISI still officially oversaw revisions. Sydenstricker and his colleagues were all experienced statistical officials; as discussed above, they focused their discussions on administrative procedures, including who should be put in charge of registering causes of death, how death certificates should be sent to the national administration, and how causes of death should be tabulated in histograms.⁶⁴

The LNHO statisticians discussed points that were completely different from those covered in the three previous revision meetings, which had taken place in 1900, 1909, and 1920. Those meetings had been organized by the ISI and convened by the French government at the suggestion of a French statistician, Jacques Bertillon, who had proposed the idea of the ICD during a meeting of the ISI in 1893. Attended by researchers and medical doctors whose core concern was scientific research, the early meetings focused on how to integrate new pathological discoveries into the list and how to categorize various causes of death. At the end of the third meeting, the ICD comprised 205 rubrics with an abridged list of ninety rubrics. Up until the 1920s, the ICD's reception was uneven in different regions of the world. For instance, Ana María Carrillo and Anne-Emanuelle Birn have shown that Bertillon's list enjoyed early success

⁶³ League of Nations, "Minutes of the Fourth Session Held at Geneva, August 14th to 21st, 1922," 10–16, cited in: Borowy, *Coming to Terms with World Health*, 104–5.

⁶⁴ Sydenstricker's emphasis on the administrative aspect of the ICD is also documented by Borowy, "Counting Death and Disease: Classification of Death and Disease in the Interwar Years, 1919–1939," 460.

in the Americas thanks to an endorsement from the American Public Health Association (APHA) in 1898. At APHA's recommendation, the United States, Canada and Mexico – the APHA member countries at that time – all applied Bertillon's list when collecting mortality statistics in their censuses of 1900/1901.⁶⁵ Outside of the Americas, however, only a few countries (mostly in Europe) adopted the complete list. Others used only the abridged list, if they made use of the ICD at all.⁶⁶

Iris Borowy offers a vivid description of the rivalry between the LNHO and the ISI regarding the leadership of the ICD revisions during the LNHO's early years. She argues that, despite their differences, collaboration between the two organizations was inevitable as they shared many expert members.⁶⁷ The League of Nations Health Committee eventually agreed that the LNHO should be responsible for revising the ICD in coordination with the ISI and the French government. Following an intensive correspondence, the LNHO and the ISI decided on a division of labor for the upcoming revision conference.⁶⁸ The ISI would serve in a consulting capacity, while the LNHO would take over as the main organizer.⁶⁹ In 1927, the LNHO and the ISI co-organized a mixed commission to discuss countries' vital statistics systems and collect materials for the 1929 revision conference.⁷⁰

When the LNHO eventually partnered with the ISI and took over responsibility for preparing the revision conferences, some considered it an opportunity to overhaul the ICD, especially certain American officials who had felt marginalized in the decision-making process during previous revisions. Once the LNHO took over, American experts William H. Davis, the chief statistician for vital statistics at the United States Census Bureau, and Haven Emerson, director of APHA, corresponded with the LNHO on ICD-related matters and took an active part in the study groups and conferences.⁷¹ In addition, the

⁶⁵ Ana María Carrillo and Anne-Emanuelle Birn, "Neighbours on Notice: National and Imperialist Interests in the American Public Health Association, 1872–1921," *Canadian Bulletin of Medical History* 25, no. 1 (2008), 243–4.

⁶⁶ LNHO, "C.H. 357. The International Nomenclature of Causes of Death," September 29, 1925, 12B/43806/22685/R842/1925, League of Nations Archives.

⁶⁷ Borowy, "Counting Death and Disease: Classification of Death and Disease in the Interwar Years, 1919–1939," 465.

⁶⁸ For the details of the discussions, see: *ibid.*

⁶⁹ LNHO, "Health Committee Eighth Session," November 27, 1926, 70, C. 610. M. 238- 1926. III, League of Nations Archives.

⁷⁰ Eric Drummond, "To Aristide Briand," November 4, 1927, 12b/51488/22685/R842/1926; "To Aristide Briand," November 28, 1927, 12b/51488/22685/R842/1926, League of Nations Archives.

⁷¹ International Health Board, "IHB Minutes: Delegate to Interchange of Vital Statisticians- Appropriation," May 20, 1924, 25196, RF/1.1/100/20/164, Rockefeller Archive Center.

Scandinavian countries, which had their own list of causes of death, were still hesitant about adopting the ICD. For them, the LNHO taking over the ICD was an opportunity for their system to be taken into account in future revisions, which would help them to adapt it. Indeed, it was at the urging of APHA and the Scandinavian countries that the LNHO sought to undertake revisions to the ICD in the first place.⁷²

The 1929 revision conference marked a turning point for the ICD in that it became intergovernmental. Because the conference was held within the LNHO framework, countries sent delegates to participate in the revisions for the first time. A total of thirty-eight countries were represented.⁷³ Participants agreed on a definition of stillbirth and its registration procedure, which remained in place until the 1960s.⁷⁴ The success of the fourth revision was fleeting, however, as the fifth revision conference in 1938 was undermined by hostility between countries. Only the United Kingdom sent a representative with diplomatic power to the 1938 conference, and other countries were reluctant to endorse the new version of the ICD. This situation spurred Yves Biraud, an alumnus of the JHSPH and a statistician at the LNHO, to urge the members of the Health Committee to promote the ICD in their respective countries.⁷⁵ Given the outbreak of World War II, this appeal met with little success.

The Epidemiological Intelligence Service in the East: A Network Beyond Colonial Medicine

Edgar Sydenstricker's initiatives at the LNHO mainly reached statisticians from European countries. Other parts of the world were mostly excluded, as the great distances involved prevented them from sending their officials to the Health Committee or exchange programs.⁷⁶

⁷² Léon Bernard, "C.H. 455. Note by Professor Léon Bernard, Concerning the Procedure Which Should Be Adopted for the Revisions of the International List of Causes of Death," April 1926, 12B/51488/22685/R842/1926, League of Nations Archives.

⁷³ Moriyama et al., *History of the Statistical Classification of Diseases and Causes of Death*, 15.

⁷⁴ Gear, Biraud, and Swaroop, *International Work in Health Statistics, 1948–1958*, 8.

⁷⁵ League of Nations, "The League of Nations Health Committee Minutes of the 29th Session," October 12, 1938, 39, C. H./29th Session/Revised Minutes, League of Nations Archives.

⁷⁶ This did not mean that there was no prior international health collaboration in the region. As Tomoko Akami's research demonstrates, the Far Eastern Association of Tropical Medicine, established in 1908, comprised an inter-colonial and national network of public health experts. Akami further shows that the LNHO's subsequent actions in the region made use of the Association's network (Tomoko

Moreover, colonialism in the Far East meant that polities had varying levels of sovereignty, which presented a challenge to the LNHO's position as an international organization.⁷⁷ The organization's ambition to become the leading international health authority through its statistical reporting network came up against the colonial system in the region. The LNHO therefore had to adopt a different strategy from that used in Europe to include the Far East in the sphere of its statistical reporting.

One significant exception was Japan, which played no small part in the LNHO's drive to extend its scope to East Asia. Before the Manchurian Incident of 1931 (which led Japan to withdraw from the League of Nations in 1933), the Japanese government considered the League of Nations as an interface through which it could convince other powers to recognize Japan as the regional power in East Asia.⁷⁸ Japanese high officials of all types took active part in the League's policy-making. As Tomoko Akami has chronicled, Mikinosuke Miyajima, a pathologist and member of the Health Committee, stated during a session of the Committee in 1922 that the people of the Far East suspected the League of Nations of being focused solely on European affairs. Miyajima invited the League to "give concrete proof" that this was not the case.⁷⁹

Miyajima's invitation was well received by Rajchman and other members of the Health Committee, who were eager to promote the standing of the LNHO.⁸⁰ By collecting statistics from different continents, the LNHO could justifiably claim to be a truly global health organization, not merely a European one. Given the high cost of travel to Asia, exchanging statistical information was also a more economical way for the LNHO to expand its sphere of influence.

By the end of 1922, Rajchman sent Norman White – a LNHO staff member, and former assistant to the director of the Indian Medical Service, who had worked with the LNHO to collect epidemiological data in Eastern Europe – on an expedition to Asia to investigate public health organizations in the region.⁸¹ From late 1922 to July 1923,

Akami, "Imperial Polities, Intercolonialism, and the Shaping of Global Governing Norms: Public Health Expert Networks in Asia and the League of Nations Health Organization, 1908–37," *Journal of Global History* 12, no. 1 (2017): 4–25.

⁷⁷ Akami has demonstrated the different "layers" of international health governance that the LNHO was forced to navigate. Akami, "A Quest to be Global"; Akami, "Imperial Polities, Intercolonialism, and the Shaping of Global Governing Norms."

⁷⁸ Thomas W. Burkman, *Japan and the League of Nations* (Honolulu, HI: University of Hawai'i Press, 2008), 16.

⁷⁹ League of Nations, "Minutes of the Fourth Session Held at Geneva, August 14th to 21st, 1922.," quoted in: Akami, "A Quest to be Global," 1.

⁸⁰ League of Nations, "Minutes of the Fourth Session Held at Geneva, August 14th to 21st, 1922.," cited in: Borowy, *Coming to Terms with World Health*, 108.

⁸¹ Ludwik Rajchman, "Norman White C. V.," February 10, 1923, 12B/24282/23230/R843/1922, League of Nations Archives.



Figure 3.1 Norman White’s route to the Far East. Norman White, “The Prevalence of Epidemic Disease and Port Health Organization and Procedure in the Far East,” 1923, 12B/31957/23230/R843/1923, League of Nations Archives. Courtesy of United Nations Archives at Geneva.

White traveled from India to Japan, conferring with local authorities and collecting government-recorded epidemic statistics along the way (see Figure 3.1). With White’s expedition, key ports of Asia appeared on the LNHO’s radar of epidemiological intelligence.

White’s expedition is illustrative of how the LNHO’s attempt to expand its network of epidemiological intelligence meant negotiating

with colonial powers. The colonial system undermined the LNHO's work in Asia, as the organization's ties to imperial powers inevitably affected indigenous governments' willingness to share information. Chinese officials, for example, were reluctant to host an expert of Japanese nationality, fearing the information would be used in an invasion of China.⁸² Rajchman made deliberate efforts to avoid being seen as an ally of colonial powers. Likely because he himself came from a country (Poland) that had been occupied by foreign powers, he understood local governments' reticence. He insisted that nationality should be taken into account when choosing the envoy, citing Chinese reluctance to collaborate with a Japanese envoy.⁸³ Rajchman initially hoped to send Josephus Jitta, since he considered Jitta's native Netherlands to be too small a power to arouse suspicion, unlike the United Kingdom, France, or Japan.⁸⁴ But the Netherlands, though small in area, had a colony in Indonesia and was, in fact, a colonial power in Asia; the archives contain no clues as to whether Rajchman's reasoning was simply flawed or whether he had some other agenda. In the end, Jitta turned down the invitation because his government refused to grant him six months' leave. White, by that time already employed by the LNHO, had to sail alone.

On his expedition, White sought to go beyond the existing colonial networks and create a new channel of communication that included all Asian territories, colonies or not, for the exchange of epidemic statistics. As White indicated in a letter to W. R. Edwards, the director-general of the Indian Medical Service, the LNHO planned to go further than the OIHP, which was focused on protecting Europe from epidemics. White wrote that the LNHO would aim to have "the ports in the Far East ... protecting themselves against the importation of infection from elsewhere."⁸⁵ Specifically, the OIHP's core mission was to collect statistics for the timely implementation of quarantine measures, as decreed by the International Sanitary Convention, in order to stop epidemics from spreading to Europe. White described the OIHP as an international organization whose activities resembled "colonial medicine," a term coined by historians for the medical systems established in colonial settings that prioritized the colonial

⁸² Ludwik Rajchman, "Personnel of Epidemiological Commission to be Dispatched to the Far East," September 22, 1922, 12B/24282/23230/R843/1922, League of Nations Archives.

⁸³ *Ibid.*

⁸⁴ *Ibid.*

⁸⁵ Norman White, "To Major General Sir W. R. Edwards, Director General of Indian Medical Service," October 28, 1922, 3, 12B/25734/23230/R843/1922, League of Nations Archives.

power's commercial benefit over the local population's well-being.⁸⁶ European empires used the OIHP to protect their own interests while ignoring the local population's health. Positioning the LNHO in opposition to the OIHP, White stressed that the LNHO hoped to empower local governments to protect their populations' health. This ideal, however, came up against the existing colonial channels for epidemiological information. The Indian Medical Service was one of the first to protest: at first, it even refused to let White visit, stating that all epidemiological reports were sent through British official channels and that, according to Edwards, "it [was] not possible for an outsider to settle this question."⁸⁷ Although it is not clear why Edwards' attitude eventually softened, in the end White's visit was permitted.

Upon his return from months of traveling, White prepared a report recommending the establishment of a new bureau within the epidemiological intelligence service to serve the Far East. In 1924, the Health Committee endorsed his proposal and devised the Eastern Bureau, located in Singapore, to serve as a branch of the service's headquarters in Geneva.⁸⁸ The LNHO thus gained a means of strengthening its presence in East Asia, which was essentially achieved through the collection and exchange of statistics. With financial backing to the tune of \$155,000 provided by the Rockefeller Foundation IHB between 1924 and 1929, along with contributions from the Japanese and Indian governments, the Eastern Bureau was responsible for collecting epidemic statistics for the Geneva office and the OIHP and distributing the LNHO's epidemiological reports to authorities in the region.⁸⁹ The Bureau also collected statistics on vaccine field trials and conducted epidemiological investigations at the request of the authorities.⁹⁰ Ports in the region, such as those in China, Japan, and the Dutch East Indies, proved more willing to send their information to Singapore than to Geneva as the telegraph fees were significantly cheaper.⁹¹ Until it was forced to close due to the Japanese

⁸⁶ Further discussion of colonial medical systems can be found in: Shula Marks, "What is Colonial about Colonial Medicine? And What has Happened to Imperialism and Health?" *Social History of Medicine* 10, no. 2 (1997): 205–19.

⁸⁷ Norman White, "To Major General Sir W. R. Edwards, Director General of Indian Medical Service," December 27, 1922, 12B/25734/23230/R843/1922, League of Nations Archives.

⁸⁸ LNHO, "Minutes of the Health Committee First Session," 11.

⁸⁹ LNHO, 12–13; International Health Board, "League of Nations – Pledge," January 3, 1929, 29042, RF/1.1/100/20/164, Rockefeller Archive Center.

⁹⁰ Norman White, "The Prevalence of Epidemic Disease and Port Health Organization and Procedure in the Far East," 43; LNHO, "Health Committee Ninth Session," 75–7.

⁹¹ Norman White, "The Prevalence of Epidemic Disease and Port Health Organization and Procedure in the Far East," 43.

occupation of Singapore in 1942, the Eastern Bureau exchanged epidemiological information with 137 ports across the Indian Ocean and Western Pacific, including ports in Africa, Asia, and Australasia.⁹² Just as at the Geneva office, the Eastern Bureau's responsibilities eventually extended to training public health workers through exchanges, organizing study groups, and sponsoring and participating in scientific conferences.⁹³ Though in the beginning it was focused solely on collecting epidemic statistics, the LNHO gradually became an indispensable stakeholder on health matters in Asia. White's hopes, as expressed during his expedition, partly came true: the Eastern Bureau pushed the LNHO's work in the Far East beyond that of the OIHP and brought more technical support and information to local governments. However, the Bureau's mission to become a node of epidemiological information was only made possible because colonial powers agreed to share the information infrastructure they had already put in place.⁹⁴

The LNHO: The Only Suitable Partner for Chinese Maritime Quarantine Reform

Despite finding an intermediary in the form of the Eastern Bureau, countries made their own decisions regarding how to react to the LNHO's epidemiological intelligence reporting system. The case of China, as one of the rare uncolonized nations in the region, offers insights into Asian governments' reasons for adhering to the LNHO system.

Although China was one of the founding members of the League of Nations, it was not an active member of the Health Committee. When Norman White visited China in 1923 during his Far East expedition, power was divided among warlords, and the Beiyang government (the central government in Beijing) had very limited control over the country. White ended up meeting with the foreign powers in control of treaty ports and officers of the Central Epidemic Prevention Bureau, which was supported by the Beiyang government. Despite the many complaints he received from China-based institutions, White did not propose any reforms to address the patchwork of quarantine systems. In hindsight, the main function of White's visit was to make the LNHO and the Chinese government aware of each other: the LNHO acquired basic

⁹² LNHO, "Health Committee Eleventh Session," October 1927, 54, C. 579. M. 205.1927. III, League of Nations Archives; Borowy, *Coming to Terms with World Health*, 146.

⁹³ Manderson, "Wireless War in the Eastern Arena," 109. For more on the LNHO's involvement in the Far East, see e.g.: Akami, "A Quest to be Global."

⁹⁴ Tworek, "Communicable Disease," 830.

information on the Chinese health system, and treaty ports in China and the Central Epidemic Prevention Bureau began to share their epidemic statistics with the LNHO.⁹⁵

The relationship deepened in 1925, when the Beiyang government invited Rajchman to visit China on his way to Japan and organized a committee to accompany him on visits to treaty ports. These visits were indirectly linked to the statistical reporting system: Rajchman offered advice on treaty-port health and helped create a design for a Chinese national quarantine service, which would serve as the administrative basis for the epidemiological intelligence reporting system.

The Rockefeller public health network in China played no small part in Rajchman's visit. Specifically, contact was initiated by John B. Grant, director of the Rockefeller-funded PUMC Department of Public Health. Grant first wrote to New York requesting IHB authorization to tackle Chinese quarantine reform. Victor Heiser, an IHB officer, turned down Grant's request, as quarantine organization was considered a sovereignty issue; Heiser advised that the Rockefeller Foundation could not enter such troubled political waters and should leave the matter to the League of Nations, the impartiality of which would facilitate reform without causing a backlash.⁹⁶

Indeed, the quarantine system in Chinese ports was an extremely delicate issue in terms of sovereignty, as it involved several different authorities: foreign powers exercised extraterritorial power in their respective treaty ports, and the Chinese Maritime Customs Service had been under the control of British officers since its founding in the mid-nineteenth century.⁹⁷ The only paid position related to quarantine measures within

⁹⁵ LNHO, "Health Committee Ninth Session," 32; "Health Committee: Minutes of the Sixth Session," May 1926, 19, C.252, M.96, 1926, III., League of Nations Archives.

⁹⁶ Oral History Research Department, Columbia University, "Reminiscences of Dr. John B. Grant (Vol. 2)," 248–9.

⁹⁷ The Chinese Maritime Customs Service was established by the British at the request of the Qing administration. From that point on, all its directors were British, and it was not until the 1940s that the service had its first American director. Despite the nationality of its directors and the clear British influence, the Service was part of the Chinese government. Recent scholarly works have pointed out that the Service enjoyed a degree of independence from British imperial interests, especially during the Nanjing Decade (Hans Van de Ven, *Breaking with the Past: The Maritime Customs Service and the Global Origins of Modernity in China* [New York: Columbia University Press, 2014]; Felix Boecking, *No Great Wall: Trade, Tariffs and Nationalism in Republican China, 1927–1945* [Cambridge, MA: Harvard University Asia Center, 2017]). For medical officers' accounts within the Service, see: Li Shang-Jen, "Shijiu shiji Zhongguo tongshang gangbu de weisheng zhuangkuang: haiguan yiguan de guandian" ["Health Conditions of Treaty Ports in China during 19th Century: From the Perspective of Customs Medical Officer,"] in *Jiankang yu shehui: Huaren weisheng xinshi* [Health and Society: The New History of Chinese Hygiene], ed. Chu Ping-Yi (Taipei: Linking Books, 2013), 69–93.

the Chinese government was that of medical officer within the China Maritime Customs Service, subordinated to the Ministry of Finance. These medical officers were either British or American nationals who were private practitioners and worked only part-time in the customs service.⁹⁸ The complex nature of treaty-port sovereignty made it impossible for any one country to intervene. Moreover, quarantine measures involved detaining infected boats and personnel, which required forceful legal backing. The League of Nations, as an intergovernmental organization, seemed to be the only actor capable of providing a solution.

Rajchman's 1925 visit proceeded much as Grant and Heiser had hoped: Rajchman decided that Chinese port health reform would be the *raison d'être* of his young health organization. To the LNHO Health Committee, Rajchman argued that the LNHO's involvement in Chinese quarantine reform would not be charity, as it would have a profound impact on maritime commerce worldwide.⁹⁹ He went on to note that the Chinese quarantine service was an international health issue that only the LNHO could take on,¹⁰⁰ and that the LNHO's involvement in establishing a modern quarantine service in China might even justify the organization's very existence: "[I]f the task of facilitating the application of modern medicine into a country of four hundred million inhabitants could be undertaken, such a work would in itself justify the existence of an international public health administration."¹⁰¹ Many committee members were in favor of the LNHO's involvement in Chinese quarantine reform. Although no official agreement was signed, Rajchman and Chinese public health officers arrived at a mutual understanding: Rajchman learned about Chinese public health organizations, and the Chinese officers came to trust that the LNHO was not working for any imperial power.

The third contact between the LNHO and the Chinese government confirmed the organization's leading role in constructing the Chinese national health system, including statistical reporting. The fact that the LNHO was an international organization and thus geopolitically impartial was the decisive factor in favor of this collaboration. In 1928, the Nationalist government, led by Chiang Kai-Shek, gained control of the majority of Chinese territory by unseating warlords in several regions. Riding a wave of mounting nationalism, Chiang's priority was to undo the unequal treaties that had been in force since 1842. The ROC

⁹⁸ Ludwik Rajchman, "Report to the League of Nations," *National Medical Journal of China (Shanghai)* 13, no. 3 (1927): 288–92.

⁹⁹ LNHO, "Health Committee: Minutes of the Sixth Session," 20.

¹⁰⁰ *Ibid.*, 20.

¹⁰¹ *Ibid.*, 20.

government's collaboration with the League of Nations can be understood as a way of counterbalancing the influence of foreign powers in China. Major imperial powers, including the United Kingdom, Japan, Russia, and France, had carefully carved out spheres of influence in China, and if any were to work with the ROC government, it ran the risk of offending the others. This division of power existed not only in treaty-port management, but also in the provision of health and medical services. Medical doctors in China, whatever their nationality, were divided into three camps: those who had received German or Japanese training and were largely employed by health organizations; those who had been trained in the British or American system, which included Grant and his students; and those, a small group, who had received French or Belgian training. Doctors from the different camps competed for influence vis-à-vis the Chinese Ministry of Health (reorganized into the National Health Administration [NHA] in 1931).¹⁰² Each doctor hired was interpreted as a gain or loss of power, depending on the new employee's camp. As Grant recalled, "I myself belonged to what was called an Anglo-American group, regardless of what I tried to dub myself."¹⁰³

Given the competition among the imperial powers in China, the LNHO's impartiality presented a unique opportunity for the NHA to reform the quarantine system while sidestepping doctors' rivalries. As Grant wrote in a letter to Heiser, "It is possible the League may be the best mechanism through which such technical help may be secured. Going through the League, provided the League did its job well, would or should have the advantage of impartiality."¹⁰⁴ In addition, as the LNHO represented its member states as a whole, the ROC could take back quarantine authority in every treaty port at once without negotiating with individual foreign powers. The political ramifications were significant. Tellingly, it was the ROC Ministry of Foreign Affairs, not the Ministry of Health, that wrote to Rajchman inviting him to carry out a "sanitary mission" in China.¹⁰⁵

¹⁰² Xi Gao, "Foreign Models of Medicine in Twentieth-Century China," in *Medical Transitions in Twentieth-Century China*, eds. Mary Brown Bullock and Bridie Andrews (Bloomington, IN: Indiana University Press, 2014), 173–211. In 1931, the Ministry of Health was reorganized as the National Health Administration and made part of the Ministry of the Interior.

¹⁰³ Oral History Research Department, Columbia University, "Reminiscences of Dr. John B. Grant (Vol. 2)," 250.

¹⁰⁴ John B. Grant, "To Victor Heiser (Personal)," March 30, 1931, RF/2,1931/601/61/501, Rockefeller Archive Center.

¹⁰⁵ Ka-Che Yip, *Health and National Reconstruction in Nationalist China: The Development of Modern Health Services, 1928–1937* (Ann Arbor, MI: Association for Asian Studies Incorporated, 1995), 116.

Chinese health officials, in addition to diplomats, also considered quarantine responsibilities to be an important sovereignty issue. In 1929, *Public Health Monthly* published an appeal to the Chinese minister of health, the authors of which were not named, demanding an official protest against the United States government's policy of sending its own medical officers to Shanghai to conduct quarantine meningitis controls on Chinese citizens departing for the United States. The appeal noted that the measure was "violating our country's sovereignty and harming our country's international reputation."¹⁰⁶ The authors of the appeal further requested the establishment of a quarantine service and improved public health infrastructure to eliminate any excuse the United States government might have for such an intervention. To the authors, public health infrastructure was a key way to recover the nation's sovereignty.

In 1929, Rajchman visited China again, this time to investigate the customs situation. He brought along his assistant, Frank Boudreau, an American statistician-epidemiologist.¹⁰⁷ Rajchman and Boudreau reviewed the health conditions in Shanghai and agreed to send experts to study the cholera epidemics there along with related quarantine regulations.¹⁰⁸ The LNHO then sent C. L. Park, chief of the quarantine division of the Australian Health Service,¹⁰⁹ to visit China on his way to Singapore, where he was to assume directorship of the Eastern Bureau. Park visited Chinese treaty ports in 1930 and proposed establishing a national quarantine service to facilitate the implementation of the 1926 International Sanitary Regulations.¹¹⁰ Park also discovered during his visit that shipping companies were willing to contribute to medical investigations, and that the lack of port health officers in China needed to be remedied by sending officers on fellowships to European and North American ports.¹¹¹

¹⁰⁶ Weisheng yuekan, "Wei qing xing wen kangyi Meiguo zhengfu weipai yiguan zai hu jianyi bing ken sushe haigang jianyi jiguan chen gaijin weisheng jianshe yi du jiekou you [Plea for Protest Against the US Government's Appointment of Medical Officers in Shanghai for Quarantine and for the Prompt Establishment of a Maritime Quarantine Authority to Improve Public Health Infrastructure so as to Eliminate Justifications]," *Weisheng yuekan [Health Monthly]* 2, no.7 (1929):32.

¹⁰⁷ ROC, "Proposals of the National Government of the Republic of China for Collaboration with the League of Nations on Health Matters," February 12, 1930, 7, C.118.M.38.1930.III, League of Nations Archives.

¹⁰⁸ Watt, *Saving Lives in Wartime China*, 43.

¹⁰⁹ Yip, *Health and National Reconstruction in Nationalist China*, 116.

¹¹⁰ ROC, "Proposals of the National Government of the Republic of China for Collaboration with the League of Nations on Health Matters," 7.

¹¹¹ LNHO, "Health Committee: Minutes of the Seventeenth Session," August 1931, 14, C.398.M.160.1931, III., League of Nations Archives.

The same year, the Chinese ministries of finance and health and the Maritime Customs Service conferred and decided that the ROC government would establish the National Quarantine Service to take over the quarantine responsibilities that had previously been under the auspices of the Maritime Customs Service.¹¹² The new Service was put under the directorship of Wu Liande (Wu Lien-Teh), who had worked on controlling the 1910 plague epidemics in northern Manchuria and was a Chinese delegate to the LNHO. That same year, the LNHO paid for Edward B. Young (Yang Tingguang, also known as Yang Ting-Kwong), a graduate of the Detroit College of Medicine and Surgery and vice-superintendent of the quarantine hospital in Niuzhuang (Newchwang), to tour ports in Hamburg, Bremen, Amsterdam, London, Liverpool, New York, Baltimore, and New Orleans.¹¹³ Young prepared lengthy reports on the quarantine measures of each port he had visited.¹¹⁴ Upon returning to China, he took on the position of senior quarantine officer with the National Quarantine Service in Shanghai's Wusong (Woosung) port district.¹¹⁵ Young's return to China coincided with the ROC gradually reclaiming quarantine responsibilities in treaty ports from foreign powers.¹¹⁶ Moreover, the LNHO must have considered Young's tour successful as, in 1932, it organized eleven fellowships of three to six months for Chinese doctors to study abroad on subjects ranging from shipping fumigation to quarantine stations.¹¹⁷

Despite the conspicuous political motivations behind China's acceptance of the LNHO's involvement, their collaboration on quarantine reform itself was intended to be purely technical and administrative. Collecting statistics as a way of implementing quarantine measures fell perfectly into the category of technical collaboration, as statistics had the image of being indisputably factual. Through Park, Rajchman, and Boudreau's visits to China – and through Chinese doctors' fellowships in

¹¹² Song Zhiai and Jin Naiyi, "Woguo haigang jianyi shiwu yange [History of our country's maritime quarantine affairs]," *Zhonghua yixue zazhi [National Medical Journal of China (Shanghai)]* 25, no. 12 (1939): 1072.

¹¹³ *The League from Year to Year, October 1st, 1929–September 30th, 1930* (Geneva: League of Nations Information Section, 1931), 109.

¹¹⁴ Edward B. Young, "Individual Study of Port Medical Sanitation in Ports in Germany and Holland," 1930, R5906/8A/18366/10595, League of Nations Archives.

¹¹⁵ *The China Weekly Review*, "Chinese Take Over Shanghai Quarantine Service," September 20, 1930, Millard Publishing House.

¹¹⁶ Shanghai in 1930; Xiamen, Shantou, Yingkou, Andong, Wuhan in 1931; Tianjin, Tanggu, Dagu, Qinhuangdao in 1932; Guangzhou in 1936 (Song and Jin, "Woguo haigang jianyi shiwu yange [History of our country's maritime quarantine affairs]," 1072–1074).

¹¹⁷ League of Nations Secretariat Information Section, *The League from Year to Year, October 1st, 1929–September 30th, 1930*, 132.

Europe – Chinese officials became familiar with the quarantine measures used in European ports and worked to maintain a similar standard. The National Quarantine Service implemented quarantine measures and collected related numbers on plague, cholera, smallpox, yellow fever, and typhus: the diseases specified in the 1926 International Sanitary Regulations. Keeping up with international standards also served as a counter-argument to domestic resistance. In his speech celebrating the fourth anniversary of the National Quarantine Service, Wu Liande defended it against mounting doubts, especially those of transportation companies, by saying that “our Service does not take on any new policies, but merely complies with international regulations.”¹¹⁸ Through quarantine reform, Chinese ports were linked to the Eastern Bureau by cable and integrated into the network of the epidemiological intelligence service, where it was noted that “the gap which still existed in respect of information from China ha[d] been filled” and the ROC National Quarantine Service was “in a position to supply the Eastern Bureau with information.”¹¹⁹

The LNHO’s involvement in Chinese quarantine reform was an attempt to make the ROC health administration conform to LNHO standards, which was in line with Sydenstricker’s plan to unify health administrations throughout the world so as to collect comparable statistics. Seeking to take back custom-tariff autonomy and gain control of its ports, the ROC government collaborated with the LNHO to devise a national epidemiological information system that served to communicate epidemic data among ports, national health administrations, and international organizations such as the LNHO and the OIHP. For the ROC, constructing such a system was a way to appear modern and present itself as a reliable partner to foreign powers so as to regain a level of sovereignty over its ports, which was the regime’s top diplomatic priority. That strategy worked: between 1930 and 1932, most foreign powers ceded quarantine authority to the ROC’s newly established National Quarantine Service.

The ROC government generally considered its partnership with the LNHO on quarantine reform to be successful. Telling proof was that the government again sought the League of Nations’ support for general economic reconstruction. As a government representative wrote in a letter to the League of Nations in 1930:

¹¹⁸ Wu Liande, “Haigang jianyi guanlichu di si nian zhi gongzuo [The Fourth Year of Work of the National Quarantine Service],” *Zhonghua yixue zazhi [National Medical Journal of China (Shanghai)]* 20 (1934): 131.

¹¹⁹ *Ibid.*, 136.

The Chinese government is impressed with the value of expert and disinterested service which the League had rendered in many parts of the World, and wishes to enlist its assistance in the immense task of Reconstruction [sic] in China. Conscious of the debt which the Chinese people already owes to the League of Nations for the advice of the Director and other officers of the Health Organisation, my Government believes that the time has come to seek the co-operation of other section[s] of the League.¹²⁰

Nevertheless, there were lingering political sensitivities even in this type of technical collaboration, and both sides made efforts to avoid political interference that might affect their partnership. For instance, before taking on a position as a League correspondent in China, Robert Haas made a detour to Japan in 1935 to explain to the Japanese government that the League's collaboration with China was purely technical in nature.¹²¹

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The construction of the LNHO's international epidemiological intelligence network illustrates the mechanism and process through which public health administration became globalized. And yet, as this chapter has illustrated, it was not simply a matter of handing down directives from the League's Geneva headquarters to the rest of world; rather, it was a patchwork resulting from negotiations between organizations and exchanges among tiered circles of experts with varying levels of capacity when it came to statistical collection. Public health officials had to travel to the places in question before epidemic statistics could circulate. Some of these officials were involved in drafting statistical standards, others took part in exchange programs, and some (Chinese) officials toured North Atlantic ports to learn about their health systems.

This patchwork also involved polities with different levels of sovereignty in an era of colonization. Public health officers working for the LNHO and the Rockefeller Foundation – such as Rajchman, White, Grant, and Heiser – contributed to carving out a space for epidemiological intelligence exchanges without directly touching upon sensitive geopolitics. In East Asia, the LNHO presented its epidemiological intelligence service as an alternative to the OIHP, distancing itself from the latter's focus on protecting Europe from imported epidemics. The relationship between the LNHO and the Chinese government epitomizes

¹²⁰ ROC, "To the League of Nations," August 2, 1930, 11-11-01-06-005, Archives of Ministry of Foreign Affairs of the Republic of China, Academia Sinica.

¹²¹ Robert Haas, "Press Comments on the Arrival of M. Haas at Yokohama En Route to China," 1935, R5682/15062/980, League of Nations Archives.

how an international epidemic statistics exchange network came to be established against a backdrop of geopolitical tensions. The impartial nature of the League of Nations provided a unique solution for interwar China, which was seeking to free itself from the unequal treaties forced upon it by foreign powers. The Chinese government went along with the LNHO's plan, using the organization's resources to establish a national quarantine system not only to contain epidemics but also to comply with international standards so as to recover partial sovereignty. With the inauguration of the Chinese National Quarantine Service in 1930, collecting statistics and communicating them with the LNHO became routine work in Chinese ports, strengthening the LNHO–China statistical information network.