

Quarantine, diplomacy, and epidemics: Jean-Étienne-Justin Schneider and the Bubonic Plague of Sīstān in 1906

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Abstract

The 1906 Sīstān bubonic plague was one of the most significant public health crises of the late Qājār period. This study examines the role of Jean-Étienne-Justin Schneider (1854-1917), head of the Central Sanitary Council (*Majles-e Hefz al-Şehha*), in implementing quarantine policies and their impact on the institutionalization of modern medicine and the expansion of public health interventions in Iran. For this purpose, a historical-analytical approach was employed to examine resources from the Center for Documents and Diplomatic History of the Ministry of Foreign Affairs, as well as contemporary sources.

The outbreak of the bubonic plague in Sīstān and the enforcement of quarantine measures not only had significant health consequences but also heightened concerns among Iranian officials and Russian and British representatives. Within this context, Dr. Schneider played a central role in crisis management and disease control by designing and implementing quarantine protocols and coordinating across institutions in Iran. The challenges encountered in implementing quarantine during the 1906 Sīstān bubonic plague outbreak marked a turning point in Iran's public health history. This epidemic illustrates the impact of crises on administrative reforms and regional relations.

Keywords: Persian medicine; Bubonic plague; Twentieth-century history; Public health; History of medicine.

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Introduction

Human societies have long confronted infectious diseases, which have received particular attention because of their rapid spread and high mortality rates. Historical evidence documents numerous epidemics, especially of plague, across different eras. Research indicates that the three major global waves of the disease, the Plague of Justinian (6th-8th centuries), the Black Death (mid-14th century), and the third wave beginning in the mid-18th century- were predominantly bubonic. These outbreaks have significantly reshaped social structures, population patterns, and ecological dynamics (1-3).

Recent scholarship on the history of the plague has emphasized that epidemic outbreaks should be understood not merely as demographic catastrophes but also as historical processes that shape political authority, economic exchange, and systems of public health governance. Studies of plague pandemics have demonstrated that recurring outbreaks influence patterns of trade, migration, and state formation across different regions of the world (4,5). Historical evidence has shown that measures such as isolation, cordons sanitaires, and travel restrictions have

gradually evolved into institutionalized public health strategies aimed at regulating the movement of people and goods during epidemics (6). Furthermore, nineteenth-century sanitary regulations increasingly became intertwined with international commerce and diplomacy, contributing to the emergence of international health governance and what later became known as health diplomacy (7). Recent studies of the plague in the Mediterranean and Islamic world have further highlighted the importance of examining local epidemic experiences within broader transregional and international contexts, where public health measures were shaped by interactions among governments, commercial networks, and foreign powers (8). These perspectives provide an important framework for understanding the 1906 bubonic plague outbreak in Sīstān, which unfolded at the intersection of epidemic control, state administration, and international relations in late Qājār Iran.

Within this broader Mediterranean and Islamic context, the Iranian Plateau occupies an important position in the history of epidemic diseases. The Middle East, including the Iranian

Plateau, has been heavily affected by epidemics such as the plague. The disease spread intermittently across Iran, causing significant demographic and social disruption. Although scattered historical reports describe earlier outbreaks, sources from the Qājār period (1794-

1925) specifically indicate frequent plague occurrences in various Iranian cities (9-11). One notable outbreak occurred in 1906 in Sīstān (Figure 1), and its consequences extended beyond the local scale to regional and international dimensions (12,13).



Figure 1. *Qājār border conditions, 1905-1906 (14)*

Among the officials and medical practitioners involved in managing the 1906 Sīstān outbreak, Jean-Étienne-Justin Schneider (Figure 2) held a particularly important position. He was a French physician who served in the French Army before arriving in Iran in October 1893. Dr. Schneider began as an associate of the French physician Joseph Désiré Tholozan (1820-1897) and later was appointed physician to the viceroy, Kāmran

Mirzā Nāyeb-al-Saltāna (1856-1929). He subsequently rose to the court of Nāṣer al-Dīn Shāh (r. 1848-1896) and became the personal physician to Moẓaffar al-Dīn Shāh (r. 1896-1907), establishing himself as an influential figure within the Qājār government's political and administrative structure. His presidency of the Sanitary Council made him one of the most influential figures in public health management

(15-21), and he played a pivotal role in organizing the response to the 1906 Sīstān plague (16,19). After 14 years in Iran, he returned to

France in July 1907, introducing Charles-René Coppin (1861-1926) as his successor (10,12,16,17, 19,20).



Figure 2. *Jean-Étienne-Justin Schneider (1854-1917), French physician and head of the Central Sanitary Council, 1904-1907 (22)*

This study reconstructs the 1906 bubonic plague outbreak in Sīstān. It analyzes the medical and administrative measures undertaken by Schneider based on resources available at the Center for Documents and Diplomatic History of Iran's Ministry of Foreign Affairs. It also shows how this outbreak became a convergence point for public health concerns, state authorities, and international diplomatic relations. Drawing on the Ministry of Foreign Affairs' documents,

among the most significant yet least-studied sources, it highlights the role of a non-Iranian physician in shaping connections among public health, politics, social structures, and health diplomacy in late Qājār Iran.

To address the historical significance of the 1906 bubonic plague outbreak in Sīstān, this study examines three main research questions: (1) how the outbreak emerged and evolved in the region and what administrative and public health

challenges it generated; (2) the role of Dr. Schneider in organizing epidemic control measures; and (3) how the outbreak influenced public health administration, state authority, and health diplomacy in late Qājār Iran. These questions guide the analysis of archival documents from the Center for Documents and Diplomatic History of the Ministry of Foreign Affairs and frame the study's contribution to understanding the intersections of epidemic control, governance, and international relations in Iran's medical history.

In response to these research questions and based on the available archival evidence, this study hypothesizes that the 1906 bubonic plague outbreak in Sīstān contributed to the gradual strengthening of public health administration and reinforced the role of health diplomacy in public health decision-making during the late Qājār period in Iran. It further hypothesizes that Dr. Schneider played an important coordinating role in quarantine measures and served as a mediator between government authorities, local communities, and foreign actors during the epidemic. These hypotheses provide an

analytical framework for examining how epidemic control intersected with state authority, public health governance, and international relations in early twentieth-century Iran.

Methods

This study employs a historical-analytical approach, primarily based on archival documents preserved at the Center for Documents and Diplomatic History of the Ministry of Foreign Affairs. Twenty documents (thirty pages), including telegraphs, correspondence, and official reports by Jean-Étienne-Justin Schneider in 1906 (Table 1), were examined. These documents were exchanged among the Ministry of Foreign Affairs, the Ministry of Customs and Post, the Russian and British embassies and consular missions, Iranian and non-Iranian physicians, and members of the Sanitary Council. They provide valuable insights into the conditions in Sīstān during the bubonic plague outbreak, including the social, economic, and administrative aspects of epidemic management, and the measures implemented for quarantine and disease control.

Table 1. *Dr. Schneider at the Center for Documents and Diplomatic History of the Ministry of Foreign Affairs*

Row	Document Number	Date	Sender	Receiver	Subject
1	GH1323-18-20-150	1906.01.11	Schneider (French Physician and head of the Central Sanitary Council)	Ministry of Customs and Post	Plague outbreak in Nizār, Sīstān, confirmed by Zaplotinski (Russian consulate physician, Sanitary Council member)
2	GH1323-18-20-195 GH1323-18-20-195.1	1906.01.12	Dr. Schneider	Mirzā Naşrollāh Khān Mushīr al-Dowleh (Minister of Foreign Affairs)	Comprehensive report on threat dimensions, outbreak factors, and preventive measures
3	GH1323-18-20-146	1906.01.13	Odling (Physician to the British embassy)	Dr. Schneider	Official confirmation of bubonic plague in Sīstān
4	GH1323-18-20-292 GH1323-18-20-292.1	1906.01.14	Dr. Odling	Dr. Schneider	Official confirmation of bubonic plague in Sīstān
5	GH1323-18-20-163 GH1323-18-20-163.1	1906.01.15	Political representative of the Russian government	Dr. Schneider	Warning of plague spread in Sīstān
6	GH1323-18-20-250	1906.01.19	Dr. Schneider	Minister of Foreign Affairs	Sanitary Council vote and instructions to Sīstān Parliament
7	GH1323-18-20-293 GH1323-18-20-293.1	1906.01.21	Dr. Schneider	Minister of Foreign Affairs	Local inefficiency in enforcing Indian border quarantine
8	GH1324-K19-P10.1-198	1906.01.22	Dr. Schneider	Minister of Foreign Affairs	Positive results of quarantine measures in Sīstān
9	GH1323-18-20-266	1906.01.26	Dr. Schneider	Minister of Foreign Affairs	Burying the dead in calcareous lands away from residences
10	GH1323-18-20-265 GH1323-18-20-265.1	1906.01.28	Dr. Schneider	Minister of Foreign Affairs	Dr. Abbās Alī's deployment and assessment of quarantine points (Bendām, Lab-e Bahrayn)
11	GH1323-18-20-104	1906.02.11	Dr. Schneider	Minister of Foreign Affairs	Quarantine stations on routes to Qā'in, Bajestān, and Torbat-e Sheikh Jam
12	GH1324-19-01-194	1906.03.03	Minister of Foreign Affairs	Foreign ambassadors in Iran	Official report on epidemic situation to foreign embassies in Tehran
13	GH1324-19-01-177 GH1324-19-01-177.1	1906.04.01	Dr. Schneider	Minister of Foreign Affairs	Religious-health cooperation in managing the crisis

14	GH1324-19-01-95	1906.04.04	Dr. Schneider	Minister of Foreign Affairs	Roots of unrest in Sīstān and roles of individuals in the crisis
15	GH1324-19-01-140 GH1324-19-01-140.1	1906.04.05	Dr. Schneider	Minister of Foreign Affairs	Proposal for multi-stage quarantine network
16	GH1324-19-01-121	1906.04.08	Dr. Schneider	Minister of Foreign Affairs	Severity of crisis and collapse of healthcare structure in Sīstān
17	GH1324-K19-P10.1-1	1906.04.17	Dr. Schneider	Minister of Foreign Affairs	Quarantine stations on the routes leading to Bīrjand, Torbat-e Ḥeydarīyeh, Kārīz, Turshīz
18	GH1324-K19-P10.1-203 GH1324-K19-P10.1-203.1 GH1324-K19-P10.1-203.2 GH1324-K19-P10.1-203.3	1906.09.09	Dr. Schneider	Minister of Foreign Affairs	Sanitary Council rejects British Embassy's Bendām quarantine request
19	GH1324-19-01-126	-	Dr. Zaplotinski	Dr. Schneider	Crisis escalation between physicians and local authorities
20	GH1325-K22-P6-29	1907.01.07	Dr. Schneider	Moḥammad Alī Alā' al-Saltāneh (Minister of Foreign Affairs)	Official end of bubonic plague outbreak in Sīstān

Historical and interdisciplinary sources were consulted to contextualize the 1906 Sīstān bubonic plague outbreak and examine Schneider's role in crisis management. A targeted search was conducted in relevant databases and digital repositories, including JSTOR, Encyclopædia Iranica and Britannica, Google Books, Internet Archive, and PubMed, using keywords such as: "plague," "bubonic plague," "Sīstān," "Schneider," "Jean-Étienne-Justin Schneider," and "quarantine," combined with terms including "history," "Sīstān," and "1906."

Following data collection, the archival materials were organized both chronologically and thematically. A historical analysis was conducted by comparing archival evidence with contemporary accounts and secondary sources to develop a comprehensive interpretation of Schneider's health interventions and their social, economic, and political contexts.

Given the nature of historical archival research, interpreting these materials requires consideration of the scope and limitations of the research. This study primarily relies on archival documents preserved by the government and

diplomatic institutions. While these records provide valuable evidence regarding official responses, administrative decision-making, and diplomatic communication during the epidemic, they predominantly reflect state-centered perspectives of the events. Consequently, local experiences, popular perceptions, and undocumented cases may be underrepresented in the available sources. Despite these limitations, triangulating archival documents with contemporary accounts and secondary sources strengthens the reliability of this study's interpretation of history.

Historical Background of the Plague in Sīstān

Owing to its proximity to India and Afghanistan and its location on major trade caravan routes, Sīstān was constantly exposed to infectious diseases, including the plague, which caused widespread casualties throughout its history. The region's geographical characteristics, vast fertile plains, and significant water resources (Figure 3), combined with its position near borders influenced by Russia and Britain, made it a critical center in Iran's health, political, and economic developments during the Qājār period (12,13).



Figure 3. *Map of Sīstān, 1905 (23)*

During the Qājār era, Sīstān faced several devastating plague epidemics, particularly in 1894, 1897, and 1906. In 1894, the Iranian government formulated regulations to quarantine

infected areas and prevent the spread of the disease (18). In 1897, following another outbreak, Russia established a sanitary strip (cordon sanitaire) along its border to prevent the

plague from spreading to central Iran. This sanitary strip continued to operate until 1906 and acquired international dimensions, involving multiple foreign powers (12,13). These measures illustrate the growing involvement of foreign governments in Iranian public health affairs and provide an institutional framework for managing the 1906 epidemic and Dr. Schneider's subsequent interventions.

During the 1906 plague outbreak (10,12,16,17,19,24), approximately 1,400 people, primarily semi-nomadic populations and fishing villagers living around Lake Sīstān (*Hāmūn*), died from the disease (10). Considering that Iran's total population at that time was approximately 10,290,000 (25) and Sīstān's population was around 205,000 (23), approximately 0.68 percent of the region's entire population perished in this epidemic.

Historical sources suggest two primary routes for the disease's entry into Sīstān: first, contaminated clothing and textiles imported from plague-affected areas in India (10,16,17,19,24); second, infected migratory birds, particularly ducks migrating from Astrakhan in southwestern Russia, which had fed on infected rat carcasses in their original habitats (10,12). The Central Sanitary Council adopted strict containment

measures, including quarantining infected areas and systematically destroying uninhabited villages to prevent further spread (16,17,19).

Swedish geographer and topographer Sven Hedin (1865-1952), who passed through Sīstān in April 1906, vividly described the plague as a destructive force that triggered mass home evacuations, the complete destruction of villages, and large-scale population migration from the affected areas (14).

Against the backdrop of recurrent plague outbreaks, competing Russian and British sanitary policies in the region, and Sīstān's strategic location, the 1906 epidemic became a critical test for Iran's nascent public health institutions and for Dr. Schneider's leadership in the Central Sanitary Council.

The 1906 Bubonic Plague Outbreak in Sīstān

In 1906, the Sīstān region was hit by a plague outbreak that caused widespread casualties. According to a telegraph dated January 11, 1906, Jean-Étienne-Justin Schneider reported that the head of Sīstān customs had confirmed a plague outbreak in Nīzār, Sīstān. Zaplotinski, a Russian consulate physician and member of the Sanitary Council of Tehran and Sīstān, corroborated this by identifying India as the origin of the disease. Schneider stressed immediate containment and

called for preventive measures, including prohibiting the import of second-hand clothing from India, burning contaminated goods, and establishing quarantine to prevent further spread (26).

On January 12, 1906, Schneider presented a comprehensive report on the scope of the threat and the factors that could trigger its outbreak. Emphasizing the disease's Indian origin, he highlighted the region's climatic and environmental conditions in sustaining the epidemic. He proposed preventive measures including burning infected structures, restricting movement, importing anti-plague serum from India and the Pasteur Institute in Paris, deploying European physicians, enforcing border and commodity control, combating rats as disease vectors, and establishing local quarantines to monitor suspicious individuals (27).

On January 13 and 14, 1906, Thomas Francis Odling (1851-1906), a British embassy physician, confirmed the outbreak as "bubonic" plague in a letter to Schneider. Specifying the geographical extent and victim count, he called for a strict exit route quarantine and strengthened border surveillance, especially for Afghan refugees (28). He emphasized the immediate dispatch of a European physician with anti-

infective serum from India, as well as the need for accelerated quarantine measures. Subsequently, negotiations with Mirzā Naşrollāh Khān Mushīr al-Dowleh (1840-1907), the Iranian foreign minister, highlighted the immediate destruction of infected sites as the primary control strategy (Figure 4).

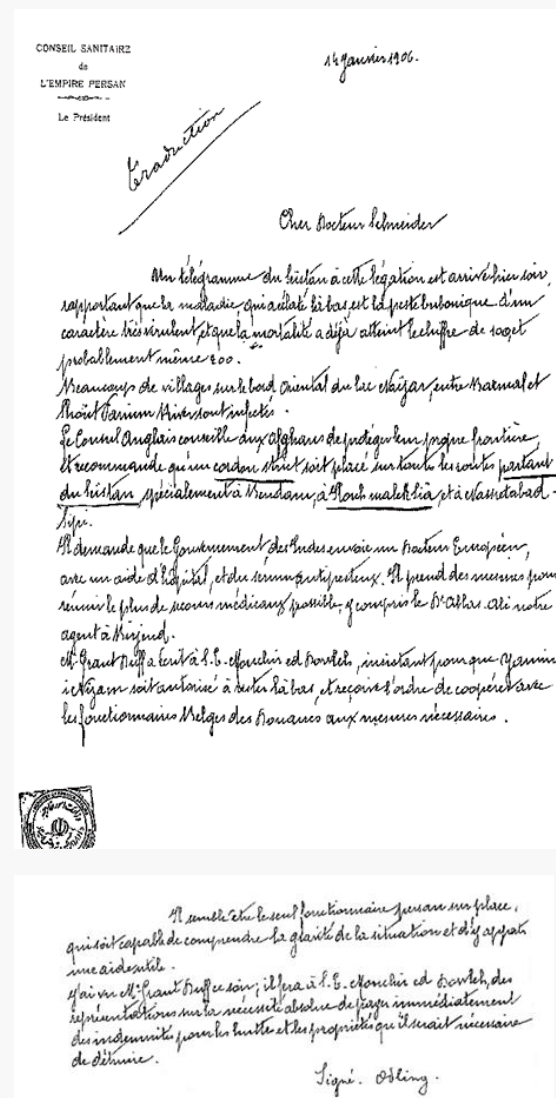


Figure 4. Official confirmation of bubonic plague in Sīstān (29)

Official reports identified the first plague cases in Nīzār of Sīstān (26,28,29), which then spread to Kūh-e Zumjah and the large village of Seh Kūh in Nuṣratābad. In response, strict quarantine was requested to prevent the spread to surrounding areas and provide the necessary supplies for residents (30). Preventive measures were expected to limit the plague and prevent its spread elsewhere, with results from the Sīstān Commission reported to the Central Sanitary Council (31).

Since India was identified as the origin of the plague, establishing quarantine posts on the eastern border and routes to India was vital. However, local inefficiency in providing physicians, supplies, and preventive equipment caused delays in implementing control measures (32).

Despite administrative shortcomings and delays, the spread of the disease was occasionally reduced, and mortality was temporarily brought under control (33). Dr. Schneider then requested a firm order to bury the plague victims in limestone fields far from the village (34).

Citing numerous reports and correspondence with the Ministry of Customs, Ministry of

Foreign Affairs, and Russian and British consular representatives, Dr. Schneider warned of disease spread and emphasized immediate quarantine on Sīstān's entry and exit routes (28-30,32). These warnings, particularly regarding the possible spread toward Mashhad, led to the establishment of quarantine stations on routes to Qā'in, Bajestān, Torbat-e Sheikh Jām (35), Bīrjand, Torbat-e Heydarīyeh, Kārīz, and Turshēz (Figure 5).



Figure 5. Quarantine plan on routes to Mashhad (36)

As the disease spread, the regional social situation further deteriorated. Some local officials, including Aṣef al-Dowleh, Sīstān's governor, and Malik al-Ḥukamā, Sīstān's quarantine physician, resisted or weakened health measures (37,38). Accurate information about disease spread was sometimes prevented from reaching central authorities in Tehran. In contrast, rumors such as "the disease in Sīstān is not plague" circulated among people and local officials (39).

This experience highlights the necessity of a central health structure and inter-institutional coordination, while demonstrating that without public trust, local support, and adequate supplies, even rigorous scientific measures cannot contain such crises.

Dr. Schneider's Interventions & International Reactions

As the bubonic plague crisis intensified in Sīstān, the Central Sanitary Council, headed by Jean-Étienne-Justin Schneider, implemented systematic measures to coordinate the government, local authorities, foreign representatives, and health forces in Iran. These efforts transformed Sīstān into a nexus of health, political, and economic interventions.

Schneider's essential proposal was to establish a multi-stage quarantine network on routes to infected areas, especially exits from Sīstān to Mashhad and Kermān. Primary stations implemented complete five-day quarantines, whereas secondary stations conducted medical examinations and symptom monitoring. To ensure effectiveness, he dispatched experienced physicians, including Pierre-Charles Bongrand (1882-1928), a French microbiologist and private physician to the viceroy (40).

Concurrent with health measures, popular uprisings in Nuṣratābad created significant social challenges. Understanding the region's socio-cultural context, Dr. Schneider assessed Mullā Moḥammad Mahdī, Grand Mujtahid of Sīstān, as decisive in calming tensions. He urged the government to leverage his social capital and religious authority by officially recognizing this influential cleric to strengthen healthcare implementation (39, 41).

During the crisis, the British government, through its embassy in Tehran and a network of local physicians and consulates, actively intervened in health decision-making. On January 28, 1906, Dr. Odling proposed transferring Abbās Alī Bīrjandī, the quarantine

physician in Bendām, to Lab-e Baḥrayn, a proposal Jean-Étienne-Justin Schneider opposed, prioritizing the Bendām mission. This disagreement over the prioritization of

quarantine stations, especially in Bendām and Lab-e Baḥrayn, became a central challenge for disease control policy (Figure 6).

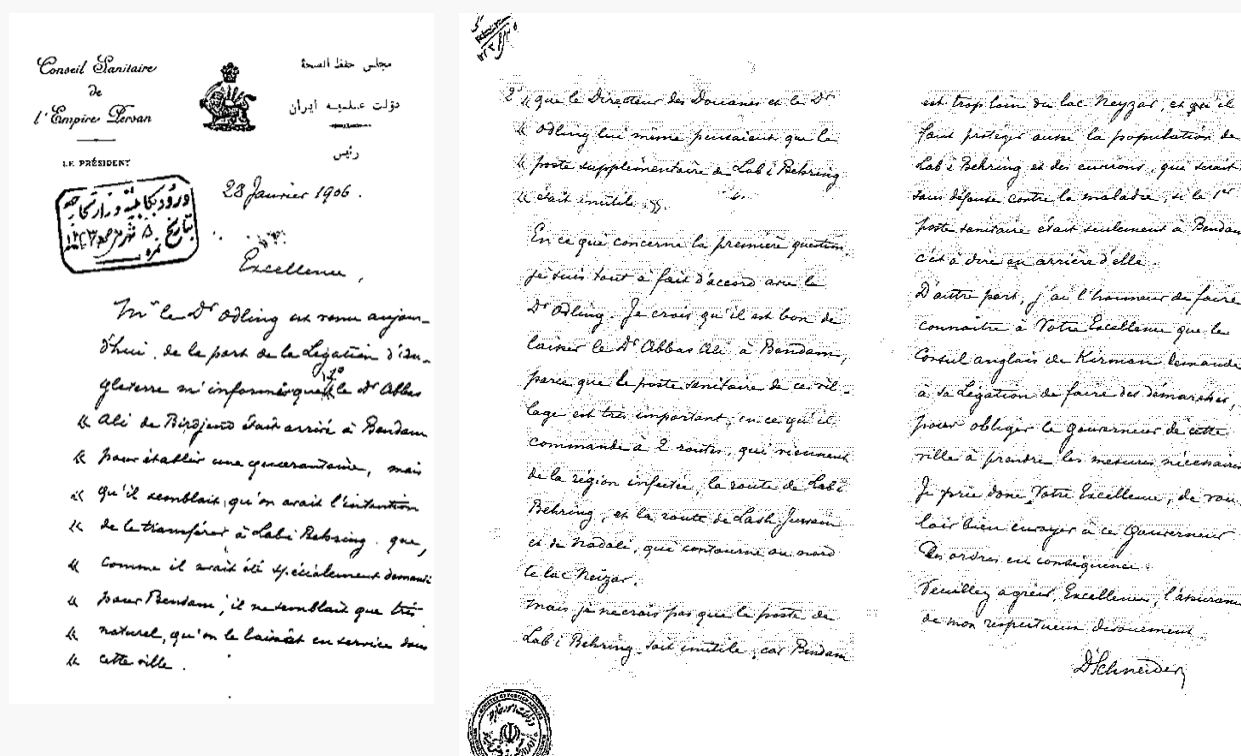


Figure 6. The location of Dr. Abbās Alī's deployment and the assessment of quarantine sites (42)

Meanwhile, Russia warned of disease spreading from Sīstān to Mashhad and, on February 11, 1906, threatened to close the Khorāsān border unless strict measures were implemented, which would carry far-reaching commercial consequences for Iran. Schneider responded by proposing activated quarantine stations along the Sīstān-Mashhad route, with convoy

examinations, to protect public health and reduce diplomatic pressure (35).

A prominent manifestation of international cooperation was the official report on the bubonic plague outbreak in Sīstān, sent to embassies and the Iranian government. Beyond reflecting health concerns, this action represents an initial mechanism for transnational coordination in combating infectious diseases on

Iran's eastern borders, an example of epidemiological information exchange within diplomatic relations during the Qājār period (43). Another example was the formation of a health commission with representatives from Iran, Russia, France, Britain, Austria-Hungary, and Germany. On September 9, 1906, British physician Lennox Honey Lindley's (1868-1947) proposal to abolish all Sīstān quarantines (including the Bendām station) after the Sīstān Sanitary Council's report met strong opposition. Citing the available evidence, the commission declared that complete disease control was unachievable and that continued five-day quarantine was necessary to prevent disease recurrence (44). This decision demonstrates the primacy of scientific considerations over political and economic pressures.

Finally, on January 7, 1907, Jean-Étienne-Justin Schneider wrote to Moḥammad Alī Alā' al-Saltāneh (1829-1918), Minister of Foreign Affairs, announcing the official end of the bubonic plague outbreak in Sīstān (45). This correspondence marked the conclusion of the acute phase of the crisis and the stabilization of relative health in the region.

Conclusion

The 1906 bubonic plague outbreak in Sīstān represented a significant episode in the history of public health in Iran, exposing structural challenges in governance, health diplomacy, and community management during the late Qājār period. With Iran's population estimated at 10,290,000 and Sīstān's at approximately 205,000, the officially reported death toll of 1,400 had a localized but important administrative and social impact, particularly in a region characterized by low population density, a vulnerable economy, and limited health infrastructure. Although the reported mortality represented a relatively small proportion of the regional population, the epidemic generated substantial administrative, social, and public health challenges that extended beyond its immediate demographic effects.

In responding to these challenges, Jean-Étienne-Justin Schneider, head of the Central Sanitary Council, played a mediating and coordinating role among Qājār government priorities, public health interventions, and the interests of foreign diplomatic actors. He sought to institutionalize disease management through structured quarantine systems.

Beyond Schneider's immediate interventions, the outbreak also appears to have had broader institutional implications. Rather than definitively initiating structural transformation in modern Iranian medicine, the 1906 Sīstān outbreak appears to have contributed to gradual and incremental changes in public health. Despite administrative limitations, it appears to have contributed to several important developments: first, the gradual institutional strengthening of the Central Sanitary Council; second, the increasing integration of health policy into international relations and diplomatic competition; and third, growing attention to public participation and health education in epidemic control.

Taken together, these developments illustrate the complex interrelationships between health, politics, and society while shedding light on public health policy, institutional capacity, and international health cooperation. The epidemic experience was part of a broader historical process that contributed to subsequent

developments in Iran's public health institutions, thereby shaping the trajectory of modern health governance in those institutions.

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Conflicts Interests

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