

HISTORICAL SCIENCES

INTERNATIONAL COOPERATION IN SANITARY AND EPIDEMIOLOGICAL LEGISLATION
AND ITS RESPONSE TO SARS

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In the current era, the centuries-old strategy of quarantine is becoming an increasingly prominent element of public health responses to emerging and re-emerging infectious diseases. During the 2003 pandemic of severe acute respiratory syndrome, the implementation of quarantine, border controls, contact tracing, and surveillance strategies proved effective in containing the global threat within just over three months. For centuries, these practices have constituted the cornerstone of organised responses to infectious disease outbreaks. However, the use of quarantine and other measures for controlling epidemic diseases has always been controversial due to the political, ethical, and socioeconomic issues they raise. It requires a careful balance between public interest and individual rights. In a globalised world that is becoming increasingly vulnerable to communicable diseases, a historical perspective can help clarify the use and implications of this still-valid public health strategy.

Keywords: Pandemic, quarantine regulations, influenza, SARS.

In a world where information exchange is limited, the spread of epidemics occurs in a space-time that makes information less accessible. As the world changes and expands, with regions, countries, and continents growing and multiplying, the human horizon expands beyond familiar boundaries. This evolution facilitates the spread of epidemics, making it easier and increasing the risk proportionately.

In the face of pandemics, medical science, long in the shadow of obscurantism, is proving brutally ineffective. The concept of contagious disease is fading away. The means of fighting epidemics developed in local areas have long lost their relative effectiveness. Faced with the ineffectiveness of medicine, residents are taking the initiative.

Information was the first priority at the time to counteract the spread of the virus. At the same time, it was very complex and often dangerous. Exchange and correspondence between people existed but were subject to caution, as local authorities were unsure whether the epidemic would affect the region.

Once the authorities learned of the epidemic, they faced a dilemma: should the information be made public? If the goal was to inform the public about the existence of external epidemic outbreaks, their efforts were in vain. The situation became even more urgent when suspected cases were reported in the city.

It was not until the XVI and early XVII centuries that parliaments obliged municipalities to declare a plague if it was known to exist. These announcements resulted in the city being quarantined.

The local authorities were able to take preventative measures against the epidemic in nearby villages due to their knowledge of its presence. The first step was to cut off communication with contaminated areas. Movements were restricted and closely monitored, and surveillance was increased to identify anyone who may have come into contact with contaminated flora. This included foreigners, travellers, sailors, and vagrants

who were believed to be outside the boundaries of the municipality.

Lazzaretto Vecchio was used by the authorities of the Venetian Empire to treat the entire range of plague epidemics from its inception until the 17th century. It was also used for other infections such as fever, typhoid fever and cholera [1]. The term 'quarantine' (derived from the Italian 'quaranta', meaning 40) has been adopted as a means of separating persons, animals and goods that may have been exposed to a contagious disease. Since the fourteenth century, quarantine has been an important part of a coordinated disease-control strategy, which has also included isolation, sanitary cordons, bills of health issued to ships, fumigation, disinfection, and regulation of groups of persons who were believed to be responsible for spreading the infection [2].

In Europe, the Italian example became a model for imitation. In France, Jean le Bon issued the first sanitary ordinance in 1352. However, the first administrative measures to control the epidemic were implemented in Occidental Europe through the establishment of sanitary bureaus. These bureaus, which were either temporary or permanent, were composed of members who were either employed or voluntary. The number of members varied depending on the situation.

The involvement of the state in combating epidemics was a relatively late and gradual process. Local governments, municipalities, provinces, parliaments, and even dioceses all took on this responsibility. In a world where information sharing was limited and time-consuming, it was only the local administrations that could respond quickly to the first signs of an epidemic. However, they were soon overwhelmed by the rapid spread of the disease, and coordination between different levels of government became crucial. The local authorities did not have the same understanding of the situation as the central government, and it was only the

latter that had the necessary vision and attention to effectively coordinate the response. Furthermore, in a municipal or regional approach dominated by private and localised interests, the concept of the common good may not always be prioritised. The Marseille plague of 1720, which emerged in France after a relatively peaceful period since the late 17th century, highlights the limitations and compromises of a purely local sanitation policy. On the contrary, it provides an opportunity to evaluate the effectiveness of the central government's role in managing such crises.

The first English quarantine regulations, drafted in 1663, provided for the detention of ships with plague-suspect passengers or crew at the mouth of the Thames. In 1683, a new law was introduced in Marseilles requiring all persons suspected of having contracted the plague to be quarantined and disinfected. In the same decade, efforts were made to control the spread of yellow fever in North America by imposing quarantine measures in ports. The first cases of yellow fever were reported in New York and Boston in 1688 and 1691, respectively. In some colonies, concern about possible smallpox outbreaks coinciding with ship arrivals led health authorities to consider mandatory home isolation of smallpox patients, although another controversial strategy, inoculation, was considered as a means of protection against the disease. In the United States, quarantine was the responsibility of the states until 1796. This was in response to the threat of yellow fever spreading from the West Indies, which could affect port cities. In 1720, the plague broke out in Marseilles, which caused concern in England because of the possibility of its spread along the Mediterranean coast of France. In light of the unfortunate circumstances surrounding the epidemic in Messina, Sicily, the quarantine law of 1710 was renewed three times: in 1721, 1733, and 1743. To improve the effectiveness of the response, an active surveillance system was established in the major Levantine cities, connecting the main Mediterranean ports of Western Europe through a network formed by the consuls of different countries [3].

During the years 1918-1919, a time of global conflict, the established health surveillance systems in Europe and the United States were unable to effectively control the influenza pandemic. The predecessor of the World Health Organization, the Office International d'Hygiène Publique in Paris, was unable to play a role in managing the outbreak. Despite efforts by military medical officers to isolate soldiers showing symptoms, the highly contagious disease quickly spread to nearly every country. Various strategies were attempted to contain the pandemic, such as the closure of schools, churches, and theatres, and the suspension of public gatherings in major cities of the Western world. In Paris, a large sporting event was postponed, and Yale University cancelled all on-campus public meetings. In Italy, some churches even suspended confessions and funeral ceremonies. Physicians advised the use of measures like respiratory hygiene and social distancing, but these measures were implemented too late and in an uncoordinated manner. This was especially problematic in war-torn areas where interventions like travel restrictions and border controls were impractical,

and the movement of troops facilitated the spread of the virus.

The surveillance of points of entry into the territory and especially of ports, particularly those trading with the Levant, was a serious task. Sanitary bureaus were established to detect epidemics and prevent their spread, and intendants of health were appointed by the monarch on the proposal of the intendant. The intendant of health was subordinate to the authority of the intendant. Except in the second half of the eighteenth century, a 'physician appropriate to the epidemic' was generally appointed in each case, subject to the authority of the intendant.

A significant turning point in the history of quarantine occurred during the late nineteenth and early twentieth centuries when the pathogenic agents responsible for the most dreaded epidemic diseases were identified. This led to the development of separate international measures for preventing the spread of cholera, plague, and yellow fever. In response to this new understanding, a restructuring of international regulations was approved at the 11th Sanitary Conference in 1903, which resulted in the signing of the renowned convention consisting of 184 articles [4].

The risk of deadly infectious diseases with pandemic potential, such as severe acute respiratory syndrome (SARS), is increasing worldwide. Additionally, there is a growing risk of resurgence of long-standing infectious diseases, such as tuberculosis, and the threat of biological terrorism. In response to these new and resurging threats to public health, authorities are once again turning to quarantine as a strategy for limiting the spread of communicable diseases. However, the history of quarantine, not just in its narrow sense but also in the broader sense of restricting the movement of people or goods due to a contagious disease, has not received much attention from historians of public health. A historical perspective on quarantine can provide valuable insights into its applications and can help trace the origins of stigma and prejudice, from the time of the Black Death and early cholera outbreaks to the 1918 influenza pandemic.

In response to the second influenza pandemic of the twentieth century, also known as the "Asian flu" pandemic of 1957-1958, certain countries implemented control measures to limit the spread of the disease. This pandemic was generally less severe than the 1918 influenza pandemic, and the global situation was markedly different. At this time, there was a greater understanding of influenza, as the pathogenic agent had been identified in 1933, vaccines for seasonal epidemics were available, and there were antimicrobial drugs to treat complications. Additionally, the World Health Organization had established a global influenza surveillance network, which provided early warning when a novel influenza virus (H2N2) began spreading in China in February 1957 and later worldwide that year.

The early twenty-first century marked the advent of a new era in the history of quarantine. In response to the global crisis precipitated by the emergence of SARS, traditional intervention measures were reintroduced as a means of addressing the particularly challenging threat to public health that this virus presented

on a worldwide scale. The Severe Acute Respiratory Syndrome (SARS) originated in Guangdong Province, China in 2003 and rapidly disseminated along air travel routes, becoming a global threat due to its rapid transmission and high mortality rate. The lack of protective immunity in the general population, effective antiviral drugs, and vaccines contributed to the severity of the situation. However, in comparison to influenza, SARS had a lower infectivity rate and a longer incubation period, allowing for the implementation of containment measures that proved to be effective.

The health crisis has already had a significant impact on the global economy, with restrictions on exports of health products, disruptions in international transport, increased scrutiny of foreign investment and challenges to intellectual property rights in times of health crisis. It has prompted states to reassess their essential interests and national security, for example, to maintain a production capacity for medicines and vaccines. In addition, the embargoes adopted by many countries have raised questions about their compatibility with existing free trade and investment treaties and the rationale for exemptions and derogations in these treaties. The economic impact of the crisis has led to massive stimulus packages by national governments, which have resulted in strained public finances and debt, restrictions on exports of sanitary materials, disruptions in international transport, increased scrutiny of foreign investment, and challenges to intellectual property rights in times of sanitary crisis. It has prompted states to reassess their essential interests and national security, for example, to maintain a production capacity for medicines and vaccines. In addition, the embargoes adopted by many countries have raised questions about their compatibility with existing free trade and investment treaties and the rationale for exemptions and derogations in these treaties. The economic impact of the crisis has led to massive stimulus packages by national governments, resulting in strained public finances and debt.

For over five centuries, quarantine has been a vital instrument in the control of communicable diseases. The traditional public health methods have been adapted to the specific nature and level of risk of each disease, and have been demonstrated to be effective in containing outbreaks such as the 2003 SARS outbreak and the 2009 influenza A(H1N1) pandemic [7]. The history of quarantine, including its origins, past usage, and modern application, represents a fascinating topic within the broader field of sanitation history. Public health measures have played a pivotal role in reducing contact between infected individuals and those susceptible to the disease. In the absence of pharmaceutical interventions, these measures have been instrumental in containing infections, delaying the spread of disease, preventing panic and death, and maintaining societal infrastructure. Although quarantine and other public health practices are effective in controlling outbreaks and alleviating public anxiety, they have historically been a subject of debate and have been perceived as intrusive. Throughout history, and irrespective of political ideology, there has been pervasive suspicion, distrust, and even violent opposition to these strategic

measures. Furthermore, they have given rise to a multitude of political, economic, social, and ethical concerns. In periods of public health crisis, individual rights have frequently been set aside in the name of the greater good. The use of segregation or isolation to separate individuals suspected of infection has frequently infringed upon the liberties of those who appear healthy, particularly those from lower socioeconomic backgrounds and marginalised minority groups who have historically faced discrimination. This aspect, inherent in quarantine, can be traced back to the time of the plague and continues to be relevant in modern times, such as during the 2009 influenza A(H1N1) pandemic.

A subject that is often misunderstood is quarantine. As a result, the general public is not well informed about the changes that have taken place in maritime health in recent years. Travellers subject to quarantine are often impatient and quick to criticise the service, even though it may sometimes be necessary for their own safety. Inland residents are unfamiliar with quarantine procedures, and even in seaports there is only a passing interest in the subject. Quarantine restrictions are often seen as a barrier to trade rather than a necessary precaution. Unfortunately, there have been cases where unscientific and impractical methods have made quarantine a subject of ridicule. In recent years, however, there has been a shift towards a more scientific approach and infected ships are now treated on the basis of established facts rather than theories. This is the result of scientific research and has led to a new era in quarantine practices.

It is imperative to grasp this historical context in order to fully comprehend the extent to which panic, social stigma and prejudice have impeded public health initiatives aimed at controlling the spread of disease. In the twenty-first century, infectious diseases and other public health tools such as quarantine remain fundamental to public health preparedness.

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