

Quarantine: Its Use and Limitations

In May 2007, an Atlanta attorney who was diagnosed with what was originally believed to be a dangerous form of tuberculosis was held in isolation at an Atlanta hospital. Under the first federal isolation order in forty-four years, he was sequestered under armed guard and later transferred to a Colorado facility.¹ Nearly two months later, a seventeen year old Mexican national living in the Atlanta area was diagnosed with tuberculosis.² The teenager refused medical treatment and, as a result, was held in medical isolation at Gwinnet County jail.³

Quarantine is a multifaceted issue that must balance individual rights against public safety. History reveals some instances where quarantine has been used as a weapon of prejudice and abuse. In a world where a dangerous contagion could potentially afflict millions in a very short amount of time, the proper implementation of quarantine requires careful consideration. The use of quarantine as an extensive public health measure should be curtailed for the following reasons: 1) quarantine has been historically used to discriminate against minorities; 2) studies demonstrate that mass quarantine is ineffective; 3) a large scale quarantine would be difficult to implement.

History of Quarantine

The concept of quarantine is not recent. Medical historians believe the writings of Greek scholars Thucydides and Hippocrates suggest that the ancient Greeks "avoided the contagious."⁴ In 1374, Venice instituted a forty-day quarantine for ships entering the city.⁵ Due to a fear of the

¹ Meredith Hobbs, *Speaker Beats TB, Now Wants Standing Back*, 118 *Fulton Co. Daily Report* 176, Sept. 10, 2007.

² Craig Schneider, *Teen Jailed in Another Case of TB*, *Atlanta Constitution*, Aug. 26, 2007 at D1

³ *Id.*

⁴ Howard Markel, *Quarantine: East European Jewish Immigrants and the New York City Epidemics of 1892*, 2 (1997).

⁵ *Id.* at 3

plague, a ship's crew and passengers were forced to remain in port until the time period ended.⁶

In response to the plague, similar measures were later introduced throughout other parts of Europe.⁷

In the United States, one of the first documented instances of quarantine occurred in the Massachusetts Bay Colony. Ships from the West Indies were denied entry because of concerns they carried the plague.⁸ Prior to 1796, quarantine legislation was the responsibility of the states. Congress enacted a quarantine law in 1796 largely in response to an outbreak of yellow fever.⁹ The 1796 law was repealed and replaced in 1799 with an Act Respecting Quarantine and Health Laws.¹⁰ The 1799 act authorized federal officials to assist states in the execution of their quarantine laws.¹¹

In the late 1800s, an outbreak of yellow fever ravaged the United States.¹² Cholera was also prevalent during this time.¹³ As a result of these epidemics, Congress passed an act in 1879 to prevent the introduction of contagious and infectious diseases in the United States.¹⁴ This act authorized the Board of Health to "erect temporary quarantine buildings" or "acquire on behalf of the United States titles to real estate for that purpose."¹⁵

State Quarantine Power

⁶ *Id.*

⁷ Paul Sehdev, *The Origin of Quarantine*, 35 (9) J. of Clinical & Infectious Disease, 1071, 1072.

⁸ Jennifer K. Elsea & Kathleen Swendiman, *Federal & State Quarantine Authority*, CRS Report (Jan. 23, 2007).

⁹ Edwin Maxey, *Federal Quarantine Laws*, 23 (4) Pol. Sci. Q. 618 (Dec. 1908).

¹⁰ *Id.* at 619.

¹¹ *Id.*

¹² *Id.* at 625.

¹³ *Id.*

¹⁴ *Id.* at 630

¹⁵ *Id.*

In the 19th century, while quarantine legislation was debated in Congress, states and state rights advocates argued that quarantine enforcement should be handled by states instead of the federal government.¹⁶ In the case of *Morgan's Louisiana & T.R. & S.S. v. Board of Health of State of Louisiana*, the shipping company argued that an assessment of a fee for quarantine inspection was “a regulation of commerce exclusively within the powers of Congress.”¹⁷ In response to the shipping company’s argument, the Supreme Court reiterated that the quarantine law of 1799 “clearly recognizes the quarantine laws of the states” and further stated that the state laws were “valid until displaced or contravened by some legislation of Congress.”¹⁸

Quarantine laws continued to be within the purview of the states for much of the early 1800s. With the continuing epidemics of yellow fever and cholera, a shift to federal control of quarantine enforcement began in 1866.¹⁹ In 1870, Congress passed a resolution authorizing a visit to major port cities within the U.S. by an Army Medical Officer.²⁰ After the visit, the Army Medical Officer presented a report to Congress on his findings and recommended means for controlling the yellow fever epidemic.²¹ Dr. Brown, the appointed officer at the time, believed “unity of control was necessary” to effectively control the outbreak of yellow fever.²² He also recommended that “a national system of quarantine be substituted for the various local systems.”²³

CDC Quarantine Regulations

¹⁶ *Id.* at 622

¹⁷ *Morgan's La. & T.R. & S.S. v. Bd. of Health of State of La.*, 118 U.S. 455, 461 (1886).

¹⁸ *Id.* at 464.

¹⁹ Maxey, *Supra* Note 9, at 623.

²⁰ *Id.*

²¹ *Id.*

²² *Id.*

²³ *Id.*

The Centers for Disease Control (“CDC”) is authorized pursuant to the Public Health Service Act to promulgate regulations deemed necessary to control “transmission or spread of communicable diseases from foreign countries into the United States and from one State or possession into another.”²⁴ Regulations implementing federal quarantine authority were last substantively amended in 1985.²⁵ More recently, in November 2005, the CDC issued a proposed rule on quarantine.²⁶ The proposed regulations authorize CDC officials, and other authorized officials, to screen “at airports and other locations” for persons who may be infected with communicable diseases.²⁷ The proposed regulation also recognizes in instances where a passenger withholds consent, he or she may be detained for disease screening.²⁸ A person or group of persons deemed to be in the initial stages of a communicable disease may be detained under provisional quarantine.²⁹

The proposed regulations outline three methods in which provisional quarantine may be initiated by the “quarantine officer” or “other authorized agents of the Director.”³⁰ First, the person or group of persons believed to be infected may be issued a “written provisional quarantine order.”³¹ Second, an “authorized party” may issue a verbal provisional quarantine order to a person or group of persons believed to be infected with a communicable disease.³² Finally, a person or group of persons may be placed under “actual movement restrictions.” The

²⁴ 42 U.S.C. § 361

²⁵ 42 C.F.R. § 70

²⁶ Control of Communicable Diseases, Proposed Rule, 70 Fed. Reg. 71892 (Proposed Nov. 30, 2005).

²⁷ *Id.* at 71902.

²⁸ *Id.* at 71902, 71903

²⁹ *Id.*

³⁰ *Id.*

³¹ *Id.*

³² *Id.*

proposed regulations define “actual movement restrictions” as when a person would understand that he or she is being detained and thus is not free to leave.³³

The proposed regulations prescribe that provisional quarantine shall last “only as long as necessary for the quarantine officer (or other authorized agent) to ascertain whether the person or groups of persons are a possible carrier of disease.”³⁴ Provisional quarantine is only active a maximum of three days.³⁵ For quarantine periods in excess of three days, the Director will issue “a quarantine order.”³⁶ Person(s) placed in provisional quarantine will be offered medical treatment. While medical treatment is voluntary, those who refuse must remain in quarantine.³⁷

The proposed regulations describe the process of issuing a provisional quarantine order and also generally describe what information this order would contain. The provisional quarantine order will usually be issued by the Director when a person or group of persons is placed in provisional quarantine.³⁸ While the proposed regulations specify that service of a provisional quarantine order “will typically occur through personal service,” in certain circumstances “public posting” may suffice.³⁹ The regulations further provide that the provisional quarantine order must inform the person or group of persons of the following: i) the suspected disease ii) that the person may be contagious or carry a disease with the potential of causing a public health emergency if spread iii) that there is a “reasonable belief” the person or group will travel out of state iv) that the provisional quarantine is for a maximum of three days at which time the individual(s) may be released or “served with a quarantine order.”⁴⁰ Individual(s)

³³ *Id.*

³⁴ *Id.* at 71903.

³⁵ *Id.*

³⁶ *Id.*

³⁷ *Id.*

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ *Id.*

served with a quarantine order may request an administrative hearing. In addition, judicial review may be sought by a petition for writ of habeas corpus.⁴¹

Equal Protection Considerations of Quarantine

Quarantine in the United States has been used in some cases to discriminate against certain minority groups. Physician and Medical historian Howard Markel writes of an extensive quarantine of Russian Jewish immigrants in response to an outbreak of typhoid in New York City. In 1892, four cases of typhoid fever were discovered in a tenement house among passengers who recently arrived on the ship *Massila*.⁴² As a result, the New York City health officials, charged with enforcing quarantine regulations, ordered the quarantine of ‘every single Russian Jewish passenger of the *Massila*’⁴³ New York City health officials quarantined 1,200 people, mostly Russian Jews, at North Brother island. Approximately 1,100 of those quarantined were healthy people who happened to live near former *Massila* passengers.⁴⁴ Officials sought to link the illness with other Eastern European Jewish Immigrants.⁴⁵ The 1892 quarantine would later be used by some members of Congress as a platform to exclude Eastern European Jewish immigrants from the United States.⁴⁶

Similarly, the City of San Francisco enacted a quarantine regulation in 1900 that discriminated against Chinese residents. The regulation required all Chinese residents of San Francisco to be administered a bubonic plague vaccine.⁴⁷ The law additionally restricted Chinese residents of San Francisco from traveling outside of the city without the requisite

⁴¹ *Id.*

⁴² Markel, *Supra* note 4 at 46.

⁴³ *Id.* at 50.

⁴⁴ *Id.* at 59.

⁴⁵ *Id.*

⁴⁶ *Id.* at 75

⁴⁷ *Wong Wai v. Williamson et al.*, 103 F. 1, 3 (C.C.D. 1900).

documentation demonstrating they had been vaccinated against the bubonic plague.⁴⁸ Even though 350,000 people lived in San Francisco at the time, the resolution applied only to the city's Chinese inhabitants.⁴⁹

The San Francisco regulation was challenged in two cases, *Jew Ho v. Williamson* and *Wong Wai v. Williamson*.⁵⁰ The plaintiffs alleged that the regulation violated the equal protection clause of the United States Constitution. The court noted "they [the regulations] are directed against the Asiatic race exclusively, and by name." "They [Chinese residents] are denied the privilege of traveling from one place to another, except upon conditions not enforced against any other class of people."⁵¹ For these reasons, the court found that the regulation violated their rights under equal protection clause of the 14th Amendment.⁵²

History has clearly shown how quarantines can be extremely abusive. In order to safeguard the rights of vulnerable groups and individuals, quarantines must be cautiously implemented and used only when absolutely necessary.

Due Process Implications of Quarantine

Because of the restrictions imposed during quarantine, due process considerations are particularly important. The Supreme Court has found that "due process is flexible and calls for such procedural protections as the particular situation demands."⁵³ In *Mathews*, the Supreme Court developed a three-factor test for assessing the adequacy of a proceeding under the Due Process Clause: 1) the privacy interest that will be affected by the official action; 2) the risk of an erroneous deprivation of such interest through the procedures used, and probable value, if any,

⁴⁸ *Id.*

⁴⁹ *Id.* at 6.

⁵⁰ *Supra* note 46, *Jew Ho v. Williamson*, 103 F. 10 (C.C.D. Cal. 1900).

⁵¹ *Supra* note 46 at 9.

⁵² *Id.*

⁵³ *Mathews v. Eldridge*, 424 U.S. 319, 321 (1976).

of additional procedural safeguards; and 3) the Government's interest, including the fiscal and administrative burdens that the additional or substitute procedures would entail.⁵⁴

When there are potential threats to the public health, courts have generally given broad discretion to public health officials for quarantine enforcement. In the case of *Barmore v. Robertson*, a Chicago woman sought a writ of habeas corpus claiming that she was unlawfully quarantined at her home.⁵⁵ Although she had never been ill with typhoid fever, local health authorities believed that she carried the illness.⁵⁶ The quarantine imposed by local health officials required her to remain at home. While under quarantine, she was to receive no visitors who had not been immunized.⁵⁷ The Supreme Court of Illinois deemed the imposition of quarantine of a seemingly healthy person necessary. The Court further found, "it is not necessary that one be actually sick, as the term is usually applied, in order that the health authorities have the right to restrain his liberties by quarantine regulations."⁵⁸

The loss of individual rights during quarantine should be considered relative to the loss of rights in comparable situations. Interestingly, the protection of these rights of quarantined individuals is in some cases less than the protection offered to prisoners. Biomedical research involving prisoners requires additional informed consent and ethical review procedures to ensure that they are not coerced into participating in the research.⁵⁹ Additionally, for biomedical research involving prisoners, the Department of Health and Human Services requires the appointment of an internal review board to determine whether the level of risk involved for prisoner volunteers is comparable to that of "nonprisoner volunteers."⁶⁰ Thus, extra procedures

⁵⁴ *Id.*

⁵⁵ *Barmore v. Robertson*, 302 Ill. 422 (Ill. 1922).

⁵⁶ *Id.* at 424.

⁵⁷ *Id.* at 425.

⁵⁸ *Id.* at 433.

⁵⁹ 45 C.F.R. § 302.

⁶⁰ *Id.* at § 305.

are in place to ensure that prisoner volunteers are not coerced into participating in biomedical research. In contrast, if an individual is placed in quarantine and then consents to medical treatment that is required to leave quarantine, a question exists as to whether this consent was truly voluntary. The idea that an individual under quarantine has fewer rights than an individual in prison clearly points to an inherent problem with the proposed quarantine regulations.

Implementation and Effectiveness Concerns of Quarantine

Another reason why extensive quarantine measures should be restricted is that quarantines are effective only in limited circumstances.⁶¹ Richard Schabas points out three highly improbable factors that must be present in order for a quarantine to work. 1) Patients must show signs of having a communicable disease that can be transmitted in its early stages. With many diseases, this simply is not possible 2) Effective quarantine requires the identification of “all, or virtually all, people incubating the infection.” 3) Compliance is necessary in order for quarantine to be effective.⁶² During the SARS outbreak in the early 2000’s, many people refused to comply with the quarantine implemented by the Canadian government.⁶³ Schabas further suggests that entry screening of airport passengers is unlikely to be effective against the importation of certain pandemic diseases due to their long incubation periods.⁶⁴

In addition to the limited effectiveness of quarantine enforcement, the practical issues of quarantine must be taken into consideration. Quarantine enforcement would place a heavy burden on an overtaxed travel industry.⁶⁵ Large passenger jets can hold as many as five hundred passengers, making it economically and logistically nearly impossible to implement a reliable

⁶¹ See Joseph Barbara, M.D., et al, *Large-Scale Quarantine Following Biological Terrorism in the United States*, 286 (21) J.A.M.A. (Dec. 5, 2001).

⁶² Richard Schabas, *Is the Quarantine Act Relevant?*, 176 (13) Can. Med. Assoc. J. 1840, 1841 (June 19, 2007).

⁶³ *Id.*

⁶⁴ *Id.*

⁶⁵ *Supra* note 61 at 1841.

quarantine. As a reference, when an Iowa college student contracted measles while on a trip to India, he was sequestered for nearly two months upon his return.⁶⁶ A study estimated the cost of his isolation at \$142,252.⁶⁷ These concerns demonstrate that a further examination of the practicality and effectiveness of quarantine is needed before issuance of final quarantine regulations.

Conclusion

Initially, quarantine may seem like a necessary tool to protect the public health in the event of pandemic illness. However, closer examination demonstrates that the use of quarantine can be full of potential missteps: discrimination, abuse of individual rights, and misapplication of valuable resources on an essentially ineffective measure. The CDC's proposed regulations must be further developed not only to avoid these potential missteps, but also to effectively implement a quarantine.

⁶⁶ Gustavo H. Dayan, M.D., *The Cost of Containing One Case of Measles: The Economic Impact on the Public Health Infrastructure-Iowa 2004*, 116 (1) *Pediatrics* e1.

⁶⁷ *Id.*