## *CHAPTER VIII*

# THE CONTROL OF COMMUNICABLE DISEASES

THE prevention and control of disease is the first and most important duty of public health authorities. Other activities of health departments are, in general, subordinate and supplemental to this responsibility. The protection and preservation of the public health may, of course, involve various positive measures for the promotion of health, but in the contemplation of law this official task is fundamentally a matter of disease control.

Diseases may be classified as: 1) communicable diseases, including all infectious and contagious diseases; 2) occupational diseases, arising from conditions of occupation; 3) diseases of metabolism, such as diabetes, goitre, and the endocrine disorders; 4) food infections and poisonings; 5) nutritional deficiency diseases, such as rickets, scurvy, beri-beri, and pellagra; 6) organic diseases, such as cancer, heart disease, and kidney diseases; 7) psychogenic diseases due to mental conditions; and 8) miscellaneous diseases, including the allergies, intoxications, digestive, respiratory, and various other maladies. Most diseases are preventable by recognized scientific and administrative methods.

### *The Communicable Diseases*

Communicable diseases may be defined as diseases caused by microorganisms that may be transmitted directly or indirectly from man to man, or from animals to man. The term "infectious disease" is synonymous with "communicable disease," and means any disease caused by vegetable or animal microorganisms that is capable of being transmitted by infection, with or without contact.

Contagious diseases are those that are spread from person to person, or from the sick to the well, by direct or indirect contact, either by intimate personal contact with a patient or through contact with his secretions or with an object recently contaminated by him.

All contagious and infectious diseases are communicable diseases, but many infectious diseases are not contagious. Examples of noncontagious infectious diseases are malaria, typhus fever, and other afflictions that are spread only by the bites of insects of certain species.

These scientific distinctions are not of great importance from the legal point of view, since courts often have used the various terms interchangeably, without materially affecting the legal principles applicable to disease control. A federal court has, moreover, upheld a

regulation of the United States Public Health Service declaring that the word "contagious" is synonymous with "communicable."[1]

A list of communicable diseases for which notification usually is or should be required by states and cities in the United States has been given by a committee of the American Public Health Association as follows:[2]

Actinomycosis
Anthrax
Chancroid
Cholera
Conjunctivitis, acute infectious
Dengue
Diarrhea of the newborn, epidemic
Diphtheria
Dysentery, bacillary
Favus
Food infections (salmonellosis)
Food poisoning
Glanders
Gonorrhea
Hepatitis, infectious
Hookworm disease (Ancylostomiasis)
Influenza
Kerato-conjunctivitis, infectious
Leprosy
Malaria
Measles (rubeola)
Meningococcus meningitis
Paratyphoid fever
Pertussis (whooping cough)
Plague, bubonic, septicemic, pneumonic
Pneumonia, acute lobar
Poliomyelitis
Psittacosis
Puerperal infection (puerperal septicemia)
Rabies
Relapsing fever
Ringworm (scalp)
Rocky Mountain spotted (or tick) fever
Scarlet fever (scarlatina)
Septic sore throat (streptococcus throat infection)
Smallpox (variola)
Syphilis
Tetanus
Trachoma
Trichinosis
Tuberculosis, pulmonary
Tuberculosis, other than pulmonary
Tularemia
Typhoid fever
Typhus fever
Undulant fever (brucellosis)
Yellow fever

A list of communicable diseases and infestations occurring in the United States and its insular possessions, but for which notification

1. *Ex parte Liang Buck Chew* (1924), 296 F. 182.

2. *The Control of Communicable Diseases*, 6th ed., New York, American Public Health Association, 1945. This report is official with the U. S. Public Health Service and the U. S. Navy, and has been approved in principle by the Surgeon General, U.S. Army. Also issued as Reprint No. 1697 by the Public Health Service, 1945.

is not everywhere required nor need be required, is also given, as follows:

Ascariasis
Chickenpox (varicella)
Choriomeningitis
Coccidioidomycosis
Common cold
Dysentery, amebic (amebiasis)
Encephalitis, infectious
Filariasis
German measles (rubella)
Granuloma inguinale
Impetigo contagiosa
Lymphogranuloma venereum[3]
Mononucleosis, infectious
Mumps
Pediculosis
Pemphigus neonatorum
Rat-bite fever
Rheumatic fever
Scabies
Schistosomiasis
Trypanosomiasis
Vulvovaginitis in children
Yaws

### *Methods of Control*

In the invaluable report of the American Public Health Association mentioned above, complete and accurate data are given for each of the communicable diseases, with full information on: 1) recognition of the disease; 2) etiological agent; 3) source of infection; 4) mode of transmission; 5) incubation period, if known; 6) period of communicability; 7) susceptibility and immunity; 8) prevalence; and 9) methods of control.

Under "methods of control" are included such established procedures as the following:

A. The infected individual, contacts, and environment
   1. Recognition of the disease and reporting
   2. Isolation
   3. Concurrent disinfection
   4. Terminal disinfection
   5. Quarantine
   6. Immunization
   7. Investigation of source of infection
B. General measures
C. Epidemic measures

Among the general measures applicable to the control of communicable diseases are such matters as popular health instruction, personal cleanliness and prophylaxis, food inspection and control, general sanitation, protection of water supplies, control of insects, and the

3. This title does not include granuloma venereum (inguinale), which is a different clinical condition.

location and control of human or animal carriers and contacts. Specific measures may, of course, also be important in specific diseases, as, for example, the use of silver nitrate solution in the eyes of the newborn to prevent conjunctivitis (ophthalmia neonatorum).

### *Administrative Control*

The administrative control of the communicable diseases is primarily a function of the States,[4] which may delegate this responsibility to counties, municipal corporations, boards of health, school boards, and other political subdivisions of the State.[5]

It is the proper function of the Federal Government to prevent and control the entry of disease into the United States from foreign countries, by means of supervision of foreign commerce[6] and medical inspection and denial of entry of diseased immigrants,[7] but state quarantine and health laws and regulations are recognized by the Federal Government.[8] The United States is also concerned with the prevention and control of communicable diseases in interstate commerce and through the mails. Where, however, a health official of the Federal Government is requested to aid in the suppression of an epidemic in a community, the national government cannot be charged with the expense of controlling the epidemic.[9]

4. *Morgan's S.S. Co.* v. *Louisiana State Board of Health* (1886), 118 U.S. 455, 6 S. Ct. 1114, 30 L. Ed. 237. *Bartlett* v. *Lockwood* (1896), 160 U.S. 357, 16 S. Ct. 334, 40 L. Ed. 455. *Haverty* v. *Bass* (1876), 66 Me. 71. *Spring* v. *Hyde Park* (1884), 137 Mass. 554, 50 A.S.R. 334. *Brown* v. *Murdock* (1885), 140 Mass. 314, 3 N.E. 208. *Forbes* v. *Board of Health* (1891), 28 Fla. 26, 9 So. 862, 13 L.R.A. 549. *In re Smith* (1895), 146 N.Y. 68, 40 N.E. 497, 48 A.S.R. 769, 28 L.R.A. 820. *Highland Park* v. *McMurtry* (1916), 169 Ky. 457, 184 S.W. 390.

5. *Train* v. *Boston Disinfecting Co.* (1887), 144 Mass. 523, 11 N.E. 929, 59 A.S.R. 113. *Hurst* v. *Warner* (1894), 102 Mich. 238, 60 N.W. 440, 47 A.S.R. 525, 26 L.R.A. 484. *Blue* v. *Beach* (1900), 155 Ind. 121, 56 N.E. 89, 80 A.S.R. 195, 50 L.R.A. 64. *Hengehold* v. *Covington* (1900), 108 Ky. 752, 57 S.W. 495, 22 Ky. L. 462. *People* v. *Tait* (1913), 261 Ill. 197, 103 N.E. 750. *Quebec Board of Health* v. *Cateau Landing* (1917), 52 Que. Super. 195.

6. *The Dago* (Md. 1894), 61 F. 986, 10 C.C.A. 224. *The African Prince* (Mass. 1914), 212 F. 552. *The Squanto* (N.Y. 1926), 13 F. (2d) 548.

7. *Oceanic Steam Navig. Co.* v. *Stranahan* (1909), 214 U.S. 320, 29 S. Ct. 671, 53 L. Ed. 1013.

8. *Peete* v. *Morgan* (1874), 19 Wall. 581, 22 L. Ed. 201. *Morgan's S.S. Co.* v. *Louisiana State Board of Health* (1886), 118 U.S. 455, 6 S. Ct. 1114, 30 L. Ed. 237. *Compagnie Française de Navigation à Vapeur* v. *Louisiana State Board of Health* (1902), 186 U.S. 380, 22 S. Ct. 811, 46 L. Ed. 1209.

9. *McClenny* v. *U.S.* (1910), 45 Ct. Cl. 305.

Since 1699, when the General Court of Massachusetts Bay Colony enacted a law "to prevent the spread of infectious sickness," every State has adopted legislation for the prevention and control of infectious, contagious, and communicable diseases.[10]

The respective legal duties of state and local health authorities in controlling communicable diseases may, in general, be summarized as follows:

*Duties of State Health Authorities*

1. To enforce and supervise the enforcement of all state health laws and regulations.
2. To prepare and issue reasonable regulations for the prevention and control of communicable diseases.
3. To receive and record reports of communicable diseases from local health officials and others.
4. To investigate outbreaks of disease, where necessary, and supervise local health measures in times of epidemics.
5. To make necessary laboratory diagnoses and studies.
6. To manufacture and distribute serums, vaccines, and prophylactics.
7. To enforce interstate and intrastate quarantine.
8. To distribute educational literature.
9. To cooperate with federal and local public health authorities.

*Duties of Local Health Authorities*[11]

1. To enforce all state health laws and regulations and all local health ordinances and rules and regulations.
2. To adopt necessary local regulations for the control of communicable disease.
3. To receive and record reports of disease from physicians and others, and to report all such cases to the state health authorities in accordance with law.
4. To investigate all cases of disease, carriers, and contacts.
5. To isolate or quarantine cases of communicable diseases, and assist quarantined persons.
6. To furnish vaccines, serums, etc.
7. To perform disinfection where necessary.
8. To supply laboratory service.
9. To attend conferences with state health officials for concerted measures in the suppression of disease.

10. *Communicable Diseases, An analysis of the laws and regulations for the control thereof in force in the United States,* Public Health Bulletin, No. 62, U.S. Public Health Service, 1913. *Distribution of Health Services in the Structure of State Government,* Public Health Bulletin No. 184, U.S. Public Health Service, 1943.

11. See I. V. Hiscock, editor, *Community Health Organization,* 3d ed., New York, Commonwealth Fund, 1939.

Although state health departments have the primary and usually complete authority over the control of communicable diseases, in a number of States other divisions of the government are vested by law with certain functions concerning disease control. Among these governmental agencies are departments of education, agriculture, and welfare, state hospitals and universities, and boards of entomology.

### *Reporting*

Prompt and accurate notification of the existence of a communicable disease is one of the first requisites for its proper control by health departments. This principle has been recognized legally since 1883, when Michigan adopted legislation for a comprehensive system of notification of infectious diseases. In the following year, Massachusetts took similar action, and now all States have provided by law for morbidity reporting.[12]

These laws and regulations generally provide that reports of communicable diseases shall be made immediately, or sometimes within twelve hours, to local health officers by physicians, or, when no physician is in attendance, by certain other persons. The reports are usually required to be in writing, or by telephone, telegraph, or messenger, although in some instances oral reports other than by telephone are stated to be permissible.

Laws, ordinances, and regulations of this nature have been sustained by courts of last resort on numerous occasions.[13] As early as 1887 the Supreme Court of Errors of Connecticut upheld the constitutionality of a municipal ordinance requiring physicians to report cases of communicable diseases to the local health department.[14] In affirming the conviction of a physician for violation of the ordinance by failure to report a case of diphtheria, the court pointed out that this ordinance was not invalid as class legislation, but that the burden of reporting was properly placed on the one class, the medical profession, which is best qualified to discharge this necessary public duty.[15]

12. W. Fowler, *Laws and Regulations Relating to Morbidity Reporting,* Supplement No. 100 to *Pub. Health Rep.,* U.S. Public Health Service, 1933. W. Fowler, *The Reportable Diseases; Diseases and Conditions Required to be Reported in the Several States,* Reprint No. 2544, U.S. Public Health Service, 1944.

13. Review of court decisions pertaining to morbidity reports, *Pub. Health Rep.,* 43:3369, December 21, 1928.

14. *State* v. *Worden* (1887), 56 Conn. 216, 14 A. 801.

15. See *Brown* v. *Purdy* (1886), 54 N.Y. Super. 109, 8 N.Y.R. 143.

A state board of health regulation that required physicians to submit morbidity reports on the first of each month has likewise been upheld by the Supreme Court of Mississippi.[16] A Christian Scientist, however, is not legally obligated to report communicable diseases under the terms of a city ordinance, according to a Kansas decision in 1902 in which it was held that such a practitioner is neither a physician nor is presumed to be familiar with these diseases.[17] Today, however, a Christian Science practitioner who has reason to suspect the existence of communicable disease where no physician is in attendance would be required to report that fact to the public health authorities, unless such report has been made by the parent pursuant to law.

When a statute specifies that reports shall be made "immediately," an oral notification of the existence of a case of diphtheria by a physician eight days after he had seen the disease has been held not to be the notice required by law.[18] But where the law stated that it was the duty of every physician prescribing for the sick to report diphtheria within twenty-four hours, a dispensary physician who saw a case which he thought to be diphtheria, but refused to treat it and advised the mother to isolate the patient and call a physician, was held not to have violated the law, as the patient was not "in his charge."[19]

This decision, handed down in 1906 by the Court of Appeals of the District of Columbia, may have been correct in its rigid, technical interpretation of a defectively worded statute, but it was contrary to the spirit of the law and to the best interests of the public health. Modern statutes generally require that any physician who sees a case of communicable disease must report it, regardless of the circumstances. When, for example, a physician saw a patient afflicted with smallpox and attempted to communicate with the health department but failed to reach the department, and then merely sent the patient with a card to the health department the next morning, the Illinois Appellate Court held that this action was failure to report and affirmed a conviction of the doctor.[20]

A statute requiring physicians to report cases of smallpox, cholera, diphtheria, scarlet fever, or any other disease dangerous to the public health was held to include tuberculosis, if that disease was in fact

16. *Smythe* v. *State* (1921), 124 Miss. 454, 86 So. 870.
17. *Kansas City* v. *Baird* (1902), 92 Mo. App. 204.
18. *People* v. *Brady* (1892), 90 Mich. 459, 51 N.W. 537.
19. *Johnson* v. *D.C.* (1906), 27 App. D.C. 259.
20. *Chicago* v. *Craig* (1912), 172 Ill. App. 126.

dangerous to health.[21] In a second trial of the case the jury found that tuberculosis was dangerous,[22] an indisputable fact which would now receive judicial notice in any court.[23]

When a physician charged with violation of a morbidity reporting law claims in defense that he did not recognize the disease, evidence may be offered in court to prove that he did, including the existence of similar cases in the community, positive laboratory reports, and autopsy reports,[24] and if a jury or court finds from the evidence that the physician recognized the disease but failed to report, the conviction will usually be upheld.[25] But where a reporting ordinance fails to impose any penalty or punishment, the revocation of the license of a physician for failure to make a written report, when he did make a verbal report, will not be upheld, according to a Utah decision.[26]

Suspected cases of communicable diseases are frequently required to be reported to health authorities. When a physician makes such a report in good faith, so that a child is quarantined for smallpox but actually does not have the disease and contracts it as a result of contact with other patients in the hospital, the physician will not be liable for damages.[27] In this case the Missouri Supreme Court stated that:

> Public policy favors the discovery and confinement of persons afflicted with contagious diseases, and we think it is not only the privilege, but the duty, of any citizen acting in good faith and on reasonable grounds to report all suspected cases that examination may be made by experts and the public health thereby protected. We hold this may be done without being subjected to liability for damages.

Reports may be required from physicians on persons who are carriers of diseases. Such persons may be healthy or not sick, but carry in their systems the microorganisms of dangerous maladies, such as typhoid fever, diphtheria, or the venereal diseases, which may be transmissible to others through their actions. Records of such persons are not privileged.[28]

If a physician fails to report a case or suspected case of communicable disease, such as smallpox, as required by law, and as a conse-

21. *People* v. *Shurly* (1900), 124 Mich. 645, 83 N.W. 595.
22. *People* v. *Shurly* (1902), 131 Mich. 177, 91 N.W. 139.
23. See Chapter IX, on Tuberculosis.
24. *State* v. *Pierce* (1913), 87 Vt. 144, 88 A. 740.
25. *Comm.* v. *Evans* (1915), 59 Pa. Super. 607.
26. *Moorehouse* v. *Hammond* (1922), 60 Utah 593, 209 P. 883.
27. *McGuire* v. *Amyx* (1927), 317 Mo. 1061, 297 S.W. 968, 54 A.L.R. 644.
28. *Munzer* v. *State* (1943), 41 N.Y.S. (2d) 98.

quence of his failure to report the disease spreads to others, he will be liable for damages to the person afflicted, or to his heirs,[29] but negligence on the part of the physician in reporting must be definitely proven to be the proximate cause of the injury.[30]

### *The Confidential Nature of Morbidity Reports*

Reports of communicable diseases received and recorded by health departments are administrative records and not public records. Unless a statute authorizes to the contrary, all reports of individual cases are confidential and may not be revealed to any person, association, corporation, or private agency, except in those instances where the protection of the public health requires that the information be given, as to a school physician, to an official of a public or private institution, or possibly to a welfare agency.

Reports of communicable diseases need not be produced in court in litigations between private parties, even if demanded by subpoena, and the refusal of a health officer to produce such records or laboratory reports generally will be upheld.[31] Directly contrary to this principle, however, is a recent decision of the Supreme Court of Alabama, in which this court upheld the introduction in evidence in civil litigation of a certified copy of the record of a physical examination in the files of the state health department, which showed that one of the parties was afflicted with tuberculosis.[32]

In New York, public records of communicable diseases, compiled in accordance with the Public Health Law and the Sanitary Code, are not now privileged within the purview of the Civil Practice Act, according to a recent decision of the Court of Appeals of that State.[33] In this case a negligence action was brought by the administrator of the estate of a deceased person who had died of typhoid fever contracted from a typhoid carrier at defendant's hotel. The plaintiff endeavored to secure by subpoena from a county health department a record showing that the person involved was a typhoid carrier. In

29. *Jones* v. *Stanko* (1928), 118 Oh. St. 147, 160 N.E. 456.

30. *Davis* v. *Rodman* (1921), 147 Ark. 385, 227 S.W. 612, 13 A.L.R. 1459.

31. *Brotherhood of Painters* v. *Barton* (1910), 46 Ind. App. 160, 92 N.E. 64. *McGowan* v. *Metropolitan Life Insurance Co.* (1931), 253 N.Y.S. 551, 141 Misc. 834; affirm. (1932) in 255 N.Y.S. 130, 234 App. Div. 366; app. dism. 259 N.Y. 454, 182 N.E. 81. *In re Marks* (1936), 121 Pa. Super. 181, 183 A. 432. *Tinsley* v. *Wash. Nat. Ins. Co.* (1936), – Mo. App. –, 97 S.W. (2d) 874.

32. *Woodmen of the World Life Ins. Soc.* v. *Guyton* (1940), 239 Ala. 216, 194 So. 655.

33. *Thomas* v. *Morris* (1941), 286 N.Y. 266, 36 N.E. (2d) 141, 136 A.L.R. 854.

the lower court the order for production of the record was issued, but the health commissioner refused to produce it, and was upheld in this action by the Appellate Division. On appeal to the highest court, however, the decision was reversed.

In its decision the Court of Appeals pointed out that privilege in such instances does not exist unless conferred by some statute, and that here the statutes point the other way. Since 1909, for example, it has been provided by law that reports on tuberculosis shall not be divulged or made public, and in 1939 the Legislature amended this section by making similar requirements for chancroid, syphilis, and gonorrhea. "It seems to follow," said the Court, "that similar reports as to other communicable diseases are not so privileged." The Court also gave its reasons in the following words:

> Why should the record of compliance by the County Health Officer with these salutary requirements be kept confidential? Hidden in the files of the health office, it serves no public purpose except a bare statistical one. Made available to those with a legitimate ground for inquiry, it is effective to check the spread of the dread disease. It would be worse than useless to keep secret an order by a public officer that a certain typhoid carrier must not handle foods which are to be served to the public.

The Court furthermore distinguished between this case and a previous decision, in which it had been held that hospital records need not be produced on a subpoena issued by a legislative committee, as well as when issued by a court.[34]

Local health officers must, of course, notify state health authorities of reports of communicable diseases received by them. Health departments may also compile and publish statistics of diseases.[35]

### *Laboratory Services*

In order to aid in the diagnosis and recognition of the communicable diseases, laboratory facilities are necessary. The State may establish and operate a central laboratory at the headquarters of the state health department or at some other appropriate place, and may also have district laboratories elsewhere in the State.

The larger communities usually have laboratories in connection with their health departments, and in some States legislation makes mandatory the establishment and financial support of public health

34. *Matter of City Council of City of New York* v. *Goldwater* (1940), 284 N.Y. 296, 31 N.E. (2d) 31.

35. *Manual for Coding Causes of Illness,* Misc. Publ. No. 32, U.S. Public Health Service, 1944.

laboratories in cities of certain classes or populations. The right of municipalities to establish such laboratories has been upheld by the Supreme Court of Alabama, which declared in its opinion that: "The court discovers in the health and quarantine laws of the State no expressed or implied purpose to deny to a municipal corporation the authority to procure for the use of its officers and people in the administration of their affairs expert knowledge of things that may affect the safety, health, and comfort of the community."[36]

Private laboratories organized for commercial purposes may be regulated by the State, and licenses may be required of technicians who operate or are employed in such laboratories.

### *Isolation and Quarantine*

Isolation, as the term is used in public health administration, has been defined as the separating of persons suffering from a communicable disease, or carriers of the infecting microorganism, from other persons, in such places and under such conditions as will prevent the direct or indirect conveyance of the infectious agent to other persons.

Quarantine has been defined as the limitation of freedom of movement of persons or animals who have been exposed to communicable disease for a period of time equal to the longest usual incubation period of the disease to which they have been exposed. The incubation period is the time between the date of infection and the appearance of the first symptoms of the disease, and will vary in different diseases from a few days to several weeks. A list of incubation periods for all the common communicable diseases is given in the report on the control of these diseases issued by the American Public Health Association.

The difference between isolation and quarantine, therefore, is that the former applies to limitations of movement of the known sick and of carriers of disease, while the latter applies to persons and animals who have been exposed to or in contact with cases of infectious disease. In the past the courts have used these terms more or less interchangeably, however, and have generally accepted "quarantine" as meaning any forced stoppage of travel, communication, or intercourse on account of contagious or infectious disease. An example of an early judicial definition of quarantine is as follows: "To quarantine persons means to keep them, when suspected of having con-

36. *State ex rel. Sholl* v. *Duncan* (1930), 162 Ala. 196, 50 So. 265. See *Diagnostic Procedures and Reagents; Technics for the Laboratory Diagnosis and Control of the Communicable Diseases*, 2d ed., New York, American Public Health Association, 1945.

tracted or been exposed to an infectious disease, out of a community, or to confine them in a given place therein, and to prevent intercourse between them and the people generally of such community."[37]

The right of health officials to restrain the movements of persons and animals who are or are likely to be dangerous to the public health, and to deprive them temporarily of their liberty, is an important phase of the police power, and one that has been upheld frequently by the courts,[38] but the power must always be exercised in a reasonable manner.[39] "Quarantine laws," said the court in a leading case, "are a familiar exercise of the police power of the State. Their enactment is within its lawful province, and the making of regulations for their enforcement has always been entrusted to subordinate boards."[40]

No particular formality is required in imposing isolation or quarantine, as a rule, although at one time warrants were sometimes necessary, and notice to the person who is to be isolated or quarantined is usually desirable. It has been held, for example, that where the law provides that quarantine is to be declared by municipal authorities on written notice that contagious disease exists, and no such notice has been given, the local board has no authority to enforce quarantine.[41] Considerable discretion as to the necessity for isolation or quarantine and the period to be observed must, however, be given to health authorities, who may also adopt and enforce summary measures when the protection of the public health makes them necessary.[42]

37. *Daniel* v. *Putnam County* (1901), 113 Ga. 570, 38 S.E. 980, 54 L.R.A. 292.

38. *St. Louis* v. *McCoy* (1853), 18 Mo. 238. *Haverty* v. *Bass* (1876), 66 Me. 71. *Spring* v. *Hyde Park* (1884), 137 Mass. 554, 50 A.S.R. 334. *Brown* v. *Murdock* (1885), 140 Mass. 314, 3 N.E. 208. *Train* v. *Boston Disinfecting Co.* (1887), 144 Mass. 523, 11 N.E. 929, 59 A.S.R. 113. *State* v. *Speyer* (1895), 67 Vt. 502, 32 A. 476, 48 A.S.R. 832, 29 L.R.A. 573. *Mills* v. *Vancouver* (1903), 10 B.C. 99. *Beeks* v. *Dickinson County* (1906), 131 Ia. 444, 108 N.W. 311, 6 L.R.A. (N.S.) 831, 9 Ann. Cas. 812. *Kirby* v. *Harker* (1909), 143 Ia. 478, 121 N.W. 1071. *State* v. *Racskowski* (1913), 86 Conn. 677, 86 A. 606, 45 L.R.A. (N.S.) 580, Ann. Cas. 1914 B 410. *Crayton* v. *Larabee* (1917), 220 N.Y. 493, 116 N.E. 355, L.R.A. 1918 E 432. *In re Vaughan* (1922), 189 Cal. 491, 209 P. 353, 24 A.L.R. 858. *City of Seattle* v. *Cottin* (1927), 144 Wash. 572, 258 P. 520.

39. *In re Smith* (1895), 146 N.Y. 68, 40 N.E. 497, 28 L.R.A. 820, 48 A.S.R. 769. *Jew Ho* v. *Williamson* (1900), 103 F. 10. *Wilson* v. *Ala., Ga., S. Ry. Co.* (1900), 77 Miss. 714, 28 So. 567. *State* v. *Kirby* (1903), 120 Ia. 26, 94 N.W. 254. *Kirk* v. *Aiken Board of Health* (1909), 83 S.C. 372, 65 S.E. 387, 23 L.R.A. (N.S.) 1138.

40. *Train* v. *Boston Disinfecting Co.* (1887), 144 Mass. 523, 11 N.E. 929, 59 A.S.R. 113.

41. *State* v. *Kirby* (1903), 120 Ia. 26, 94 N.W. 254.

42. *State* v. *Racskowski* (1913), 86 Conn. 677, 86 A. 606, 45 L.R.A. (N.S.)

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The quarantine of a whole house has been upheld, even though only one case of contagious disease had occurred there,[43] but the quarantine of a district having a population of 10,000 persons is not a reasonable exercise of this power.[44] Nor may a board of health require that attendance upon all cases of infectious diseases be restricted to the health officer, but must permit private treatment of quarantined persons by any licensed physician selected by the patient.[45]

Special measures applicable to the isolation of venereally infected persons are discussed at length in Chapter X.

When cases of communicable disease are isolated at home, placards announcing the presence of the disease and the existence of quarantine may be placed upon the house in a conspicuous manner.[46] In an early case it was held that removal and destruction by a householder of a health department placard where no contagious disease existed was not an improper action,[47] although removal of a lawfully affixed placard is usually a misdemeanor. It is the duty of quarantined persons to remain in quarantine whether guarded or not,[48] but violation of a quarantine order must be definitely proven in a court action.[49] A quarantine order is not a criminal proceeding which entitles a person to the right of bail.[50]

### *Removal to Isolation Hospitals*

When a person suffering from a communicable disease can be isolated at home without endangering the public health, there is generally no legal reason for making other arrangements, although the patient, or the parent or guardian of a patient who is a minor, may voluntarily agree to hospitalization in a suitable institution.

An infected person who cannot be safely or properly cared for in his home, and whose presence there would be a hazard to the public

580, Ann. Cas. 1914 B 410. *Plymouth Township* v. *Klug* (1914), 26 N.D. 607, 145 N.W. 130.

43. *Highland Park* v. *Schulte* (1900), 123 Mich. 360, 82 N.W. 62.

44. *Jew Ho* v. *Williamson* (1900), 103 F. 10.

45. *Trabue* v. *Todd County* (1907), 125 Ky. 809, 102 S.W. 309.

46. *Brown* v. *Murdock* (1885), 140 Mass. 323, 3 N.E. 208. *Ex parte Culver* (1921), 187 Cal. 437, 202 P. 661.

47. *Memphis* v. *Smythe* (1900), 104 Tenn. 702, 58 S.W. 215.

48. *In re Vaughan* (1922), 189 Cal. 491, 209 P. 353, 24 A.L.R. 858. *Keefe* v. *Union* (1903), 76 Conn. 160, 56 A. 571.

49. *People* v. *Tait* (1913), 261 Ill. 197, 103 N.E. 750.

50. *Varholy* v. *Sweat* (1943), 153 Fla. 571, 15 So. (2d) 267.

health, may be removed to a public isolation hospital where adequate facilities for his care are provided.[51] In the absence of statutory authority, however, this power must be exercised with great caution by health authorities, and the need for the action must be capable of definite and conclusive proof as a reasonable public health measure.[52] It has been held in a leading case that a municipal corporation may enact regulations authorizing a health officer to order the removal of a smallpox patient to a properly equipped pesthouse, and that he may do so where it does not appear that the removal would endanger the patient's life.[53]

In moving patients to an isolation hospital, due care must be employed,[54] and adequate, sanitary quarters must be provided.[55] It has been held that a health officer cannot be compelled to remove a patient to an isolation hospital when no funds are available for such removal.[56]

The establishment of an isolation hospital is a proper governmental function, which does not create a nuisance *per se*,[57] but an injunction has been granted against the placing of a pesthouse in a residential district.[58]

A person who breaks quarantine, or escapes from isolation, whether in a hospital, home, or other place, may be fined and/or committed to jail.[59]

### *The Quarantine of Carriers*

A carrier is a person who is apparently healthy, but who harbors in his system the microorganisms of a disease and may spread it through his infected discharges or by other means. Since such persons are or may be dangerous to the public health, appropriate measures may be

51. *Aaron* v. *Broiles* (1885), 64 Tex. 316, 53 Am. Rep. 764. *Hengehold* v. *Covington* (1900), 108 Ky. 752, 57 S.W. 495, 22 Ky. L. 462. See *Boom* v. *City of Utica* (1848), 2 Barb. (N.Y.) 104.

52. *Kirk* v. *Aiken Board of Health* (1909), 83 S.C. 372, 65 S.E. 387, 23 L.R.A. (N.S.) 1138.

53. *Hengehold* v. *Covington* (1900), 108 Ky. 752, 57 S.W. 495, 22 Ky. L. 462.

54. *Aaron* v. *Broiles* (1885), 64 Tex. 316, 53 Am. Rep. 764.

55. *Moody* v. *Wickersham* (1922), 111 Kan. 770, 207 P. 847, 24 A.L.R. 794. *Hunt* v. *Rowton* (1930), 143 Okla. 181, 288 P. 342.

56. *Gould* v. *Keller* (1915), 36 S.D. 253, 154 N.W. 649.

57. See Chapter XIII, page 220.

58. *Birchard* v. *Board of Health* (1918), 204 Mich. 284, 169 N.W. 901, 4 A.L.R. 990.

59. *State ex rel. Kennedy* v. *Head* (1945), – Tenn. –, 185 S.W. (2d) 530.

taken by health authorities to prevent the dissemination of disease by them. Such measures may include quarantine or restriction of movement or of livelihood. The most famous instance of a carrier was that of "Typhoid Mary," who was responsible for several epidemics, and who was kept under close surveillance by health departments for many years until her death in 1938.

The right of health authorities to restrain the liberty of a carrier of disease has been recognized by the Illinois Supreme Court in a leading case,[60] in which the law was clearly set forth, as follows:

> It is not necessary that one be actually sick, as that term is usually applied, in order that the health authorities have the right to restrain his liberty by quarantine regulations. Quarantine is not a cure—it is a preventive. As the term is used in this opinion, quarantine is the method used to confine the disease within the person in whom it is detected, or to prevent a healthy person from contracting the infection. Disease germs do not usually travel through the air unaided, but they are carried by insects, by dumb animals, and by human beings. Effective quarantine must, therefore, be not so much the isolation of the person who is sick or affected with the disease as a prevention of the communication of the disease germs from the sick to the well. . . . Quarantine, in the very nature of the regulation, is not a definite or uniform measure, but it must vary according to the subject. One of the important elements in the administration of health and quarantine regulations, is a full measure of common sense. It is not necessary for the health authorities to wait until the person affected with a contagious disease has actually caused others to become sick by contact with him before he is placed under quarantine.

This case was concerned with a typhoid carrier who was quarantined by the health commissioner of the City of Chicago. In a similar case in California, the quarantine of a diphtheria carrier was upheld by the courts.[61]

### *Quarantine and Habeas Corpus*

In both cases cited above, the quarantined person attempted to secure liberty by means of the writ of habeas corpus. Whenever any person is subject to restraint and is deprived of liberty by arrest, quarantine, or other legal detention, he is entitled as a matter of right to have the propriety of his detention determined by a court of law. This judicial examination is accomplished by the writ of habeas corpus, an ancient privilege that even antedates the Magna Charta of 1215 A.D.

This right has been invoked on numerous occasions by persons

60. *Barmore* v. *Robertson* (1922), 302 Ill. 422, 134 N.E. 815, 22 A.L.R. 835.

61. *Ex Parte Culver* (1921), 187 Cal. 437, 202 P. 661.

who have been quarantined or isolated by health authorities. Whenever it has been shown to the satisfaction of the court that the imposition of the quarantine was justified for the protection of the public health, the writ has been denied, as in the Illinois and California cases cited above and in numerous cases involving the venereal diseases,[62] but the courts have consistently upheld the right of individuals to have their detention passed upon judicially,[63] except in one instance where special legislation under a state constitution had made the state board of health the final arbiter, on appeal, of the validity of the quarantine.[64]

### *Expenses of Isolation and Quarantine*

Statutes often require that all necessary expenses for food, medical and nursing care, and drugs and medicines for quarantined persons shall be borne by the public authorities, at least in the cases of those who are indigent[65] or are likely to become so as the result of the quarantine or isolation.[66] In the absence of statutory authority, such supplies would still be provided for the indigent.[67] Where, however, a physician was called to see a case of diphtheria, which he reported, and which was isolated, and he was told by the health officer to administer antitoxin, it was held that he could not recover expenses from the town under existing law.[68]

Impressment of private citizens to aid in the care of quarantined persons sometimes has been upheld in the past, but the need for such drastic action in behalf of the public service seldom occurs today and would be appropriate only in periods of grave emergency such as a widespread epidemic.

62. See Chapter X, pages 171-173.

63. *Ex parte Hardcastle* (1919), 84 Tex. Cr. 463, 208 S.W. 531, 2 A.L.R. 1589. *Dowling* v. *Harden* (1921), 18 Ala. App. 63, 88 So. 217.

64. *State* v. *King County Superior Court* (1918), 103 Wash. 409, 174 P. 973.

65. An indigent person has been defined as one who is unable to maintain himself or the members of his family lawfully dependent on him for support, or one who ordinarily is able to maintain himself or his family but because of his illness or the illness of some member of his family, or for any other reason, is or becomes unable to do so.

66. *Bellows* v. *Bd. of Supvrs. of Seneca County* (1911), 133 N.Y.S. 586, 73 Misc. 566. *Pulaski County* v. *Somerset* (1907), 30 Ky. L. 387, 98 S.W. 1022.

67. *Dodge County* v. *Diers* (1903), 60 Nebr. 361, 95 N.W. 602, 15 Ann. Cas. 232.

68. *Sweeney* v. *Town of Peterborough* (1929), 84 N.H. 155, 147 A. 412. *Bryant* v. *Nolin* (1927), 261 Mass. 358, 158 N.E. 791 (antirabic treatment). *Lesieur* v. *Inhabitants of Rumford* (1915), 113 Me. 317, 93 A. 838.

### *Epidemics*

In times of epidemic, or the occurrence of an unusual number of cases of infectious disease in a locality at the same time, more stringent measures may be put into effect by the health authorities than during times of the normal or usual prevalence of the disease. Thus, compulsory vaccination of the general population, or of the school population, will be upheld in most jurisdictions when an epidemic of smallpox is present but may not be sanctioned at other times.[69]

The declaration of an epidemic, which is defined in Webster's Dictionary as: "common to, or affecting at the same time, a large number in a community; applied to a disease which, spreading widely, attacks many persons at the same time," is a matter within the discretion of the health authorities, who are the officials best qualified to judge whether the prevalence of a disease is usual or unusual. The courts have ruled that the prevention and control of epidemics must be left to the discretion of public health officials.[70]

During an epidemic, the health authorities may order the closing of schools,[71] theaters,[72] carnivals,[73] churches, and other public assemblies,[74] but any action taken must be reasonable and may be subject to review by the courts. Summary action for the actual protection of the public health will always be upheld in times of real emergency. If an epidemic gets beyond the control of the local authorities, or if it involves several communities, the state health authorities may intervene and if necessary or desirable may assume control.

In the presence of an epidemic, juries may not be called for court duty, and the ensuing postponement of trial cannot be successfully challenged as a failure to give a speedy trial as required by law.[75] The epidemic in this case was one of infantile paralysis.

69. See Chapter XIV.

70. *Highland Park* v. *Schulte* (1900), 123 Mich. 360, 82 N.W. 62. *Alston* v. *Charleston Board of Health* (1913), 93 S.C. 553, 77 S.E. 727. *Highland Park* v. *McMurtry* (1916), 169 Ky. 457, 184 S.W. 390.

71. *Globe School District* v. *Globe Board of Health* (1919), 20 Ariz. 208, 179 P. 55. See 140 *American Law Reports* 1048.

72. *Alden* v. *State* (1919), 20 Ariz. 235, 179 P. 646. *State* v. *Swanson Theatre Circuit* (1921), 59 Utah 150, 202 P. 544, 19 A.L.R. 539.

73. *Benson* v. *Walker* (1922), 274 F. 622.

74. *Community Chautauqua, Inc.* v. *Caverly* (Vt. 1917), 244 F. 893. *Roslyn* v. *Pavlinovich* (1920), 112 Wash. 306, 192 P. 885.

75. *Ex parte Venable* (1927), 86 Cal. App. 585, 261 P. 731.

### *Disinfection*

Disinfection, or the destroying of the vitality of pathogenic microorganisms by chemical or physical means directly applied, may be ordered by health officials when regarded as necessary.[76] Concurrent disinfection, performed during the course of a disease, is now considered more effective as a public health procedure than is terminal disinfection, undertaken after the disease is over.

Disinfestation, or destruction of insect and animal carriers of disease, and delousing may likewise be required when conditions warrant these methods.

### *Immunization*

Protection against many diseases can be achieved by means of immunization with vaccines, serums, or antitoxins. While vaccination against smallpox may be required in certain instances, as explained elsewhere,[77] the compulsory use of other biological products has not yet been accorded general legal sanction in this country, although compulsory diphtheria immunization laws are in effect in North Carolina, West Virginia, and Hawaii.[78] Immunization against typhoid fever is required of certain classes of persons, such as food handlers, known carriers, and family contacts, in Arkansas, Mississippi, New Jersey, and New Mexico.

The employment in certain instances of established immunization procedures, either for individual cases or for routine use, may be eminently desirable from the standpoint of the protection of the public health, and may properly be required. In the absence of a statute, however, an individual who refuses to be immunized cannot be compelled to submit to this procedure where quarantine or isolation of a contact or exposed person would be an equally efficacious procedure.

In most of the States local health units are required to report to the state health department all immunizations performed, and in a few States there is a similar requirement for private physicians, although usually such physicians are required to report only those immunizations carried out with materials supplied free by the State. These free biological products may be furnished by the State without

76. *Allison* v. *Cash* (1911), 143 Ky. 679, 137 S.W. 245. *Train* v. *Boston Disinfecting Co.* (1887), 144 Mass. 523, 11 N.E. 929, 59 A.S.R. 113. *Hurst* v. *Warner* (1894), 102 Mich. 238, 60 N.W. 440, 47 A.S.R. 525, 26 L.R.A. 484.

77. See Chapter XIV.

78. W. Fowler, State diphtheria immunization requirements, *Pub. Health Rep.*, 57:325, March 6, 1942.

restriction, or they may be limited to indigents, or to the clients of local health units.

A law requiring the compulsory immunization of all children against diphtheria during the second and third year of life was adopted in France in 1938.[79] This law requires the use of toxoid (*l'anatoxine*) for the purpose and makes parents and guardians personally responsible for carrying out the measure; it also requires that all children under fourteen years of age who have not been vaccinated against diphtheria shall be subjected to such immunization. Antidiphtheria vaccination has also been obligatory in the Dominican Republic since 1937, when a decree to that effect was adopted.

Where the use of a biological product is generally considered to be a necessary part of the proper treatment of a disease, such as antitoxin for diphtheria, anti-tetanus serum for tetanus, or the Pasteur treatment for rabies, the failure of a parent to permit the use of such a product to save the life of a minor child will usually be held to create liability for criminal negligence. The State has the power to control and regulate the custody of children and to prevent or punish actions by parents or others that endanger the health of children, and such laws do not violate religious freedom.[80]

Private institutions, such as private schools, colleges, and industries, may properly require vaccination or immunization as a prerequisite to entry, enrollment, or employment, and may refuse to receive those who will not be immunized.[81]

A regulation of a board of health requiring that all Chinese should be vaccinated against plague, regardless of previous conditions such as residence and exposure, and not making similar requirements for other races has been held void as class legislation.[82]

A municipal ordinance requiring that all dogs in a city should be vaccinated against rabies before a fixed date in each calendar year was upheld by the Supreme Court of Alabama in 1938.[83] The ordinance

79. Diphtheria immunization made compulsory in France, *Pub. Health Rep.*, 53:1301, July 29, 1938. France makes diphtheria immunization compulsory (editorial), *J.A.M.A.*, 111:849, August 27, 1938.

80. *People* v. *Pierson* (1903), 176 N.Y. 201, 68 N.E. 243, 98 A.S.R. 666, 63 L.R.A. 187. In *Janssen* v. *Mulder* (1925), 232 Mich. 183, 205 N.W. 159, a chiropractor was held liable for failure to diagnose and properly treat a case of diphtheria in a child.

81. *Williams* v. *Wheeler* (1913), 23 Cal. App. 619, 138 P. 937.

82. *Wong Wai* v. *Williamson* (1900), 103 F. 1.

83. *City of Birmingham* v. *West* (1938), 236 Ala. 434, 183 So. 421, cert. den. 306 U.S. 662.

was ruled to be valid, despite the fact that a state law requiring the vaccination of dogs against rabies exempted those kept in an enclosure, under leash, or muzzled. The court pointed out that under the Alabama constitution a municipality could not adopt legislation inconsistent with state laws, but it could properly enlarge upon such laws by requiring more restriction than the statute creates. The United States Supreme Court refused to review this case.

### *Diseases of Animals*

Since domestic animals suffer from various diseases and maladies, all of which are dangerous to the animals and some of which are transmissible to man, health departments and other divisions of the government may take all necessary and proper measures to prevent and control such diseases. Among the animal diseases which may be communicated to man, either by direct contact or by the milk or other secretions, are anthrax, glanders, plague, psittacosis, rabies, rat-bite fever, streptococcal infections, trichinosis, typhoid fever, tuberculosis, tularemia, and undulant fever. Other diseases may be communicated to man by ticks or other insects with which the animals may be infested.

In the control of rabies in dogs, a health department may properly require by regulation that all dogs shall be muzzled or adequately controlled by leash or chain, and may provide that all dogs not thus restrained may be seized and impounded for a reasonable period. Thus, in a recent New York case it was held that a resolution to that effect adopted by the New York City Board of Health was valid, even though authority was delegated to a private agency, the American Society for the Prevention of Cruelty to Animals, to act as agent for the health department in carrying out the terms of the order, which was to be in effect for six months.[84] Destruction of dogs not claimed by their owners within 48 hours and six months' quarantine in an approved veterinary hospital of claimed dogs were also sustained as valid, although it has also been held that proof of proper action is necessary to justify the destruction of animals.[85]

Local requirements that all dogs shall be licensed have been upheld by the United States Supreme Court.[86]

84. *Chalfin* v. *Am. Soc. Prev. Cruelty to Animals* (1945), 53 N.Y.S. (2d) 174, 184 Misc. 15. *Steinberg* v. *Stebbins* (1945), 55 N.Y.S. (2d) 503, 184 Misc. 794, rev. in 56 N.Y.S. (2d) 453, 269 App. Div. 910.

85. *Preudhomme* v. *Stebbins* (1945), 55 N.Y.S. (2d) 397, 269 App. Div. 409. *People* v. *Adorjan* (1946), 60 N.Y.S. (2d) 651.

86. *Nicchia* v. *New York* (1920), 254 U.S. 228, 41 S. Ct. 103, 65 L. Ed. 235, 13 A.L.R. 826.

It is within the power of the Federal Government to require that domestic cattle be treated to eradicate infectious diseases, according to a recent decision upholding the conviction of persons who assaulted inspectors of the United States Bureau of Animal Industry who were engaged in the dipping of cattle for Texas fever.[87]

Legal matters concerned with the control of tuberculosis and Bang's disease in cattle are outlined in Chapter XI, on Milk Control.

### *Leprosy*

Leprosy is a contagious disease caused by a bacillus, the *Mycobacterium leprae*. Although much dreaded, it is only mildly contagious in the temperate zone and is stated by authorities to be less contagious in this country than tuberculosis. The disease is common in certain tropical countries, but is rare in the United States, as shown by the fact that from 1894 to 1942 only 1,374 cases were admitted to the National Leprosarium. Of these, 404 were foreign born. A number of cases occur annually, however, in the Gulf Coast States.

In 1917 Congress enacted legislation providing for a national leprosarium under the administration of the United States Public Health Service. Due to World War I action on the matter was postponed until 1921 when the Federal Government purchased the Louisiana Leper Home at Carville, La., which had been established in 1894. The hospital was expanded in 1924, and again in 1941, so that today it has facilities for 65 hospital and 480 ambulatory patients, and is considered to be the finest institution of its kind in the world.

Under regulations promulgated by the Surgeon General of the Public Health Service, the following types of patients may be admitted to the National Leprosarium:

1. Any person afflicted with leprosy who presents himself or herself for care, detention, and treatment, or
2. Who may be apprehended under authority of the United States Quarantine Acts, or
3. Any person afflicted with leprosy duly consigned to said home by the proper health authorities of any State, Territory, or the District of Columbia.[88]

87. *Carter* v. *U.S.* (1939), 38 F. (2d) 227.

88. G. H. Faget, *The Story of the National Leprosarium*, Reprint No. 2374, United States Public Health Service, 1942.