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## STATE BOARD OF HEALTH OF KENTUCKY.

### PRECAUTIONS TO BE USED AGAINST CHOLERA.

*To the Health Officials and People of Kentucky:*

■ **Asiatic Cholera** is again on its deadly march westward. Heretofore cholera in western Europe has always been followed by an epidemic in this country, and so far, Kentucky has never escaped the disease when it has gained a foothold on this continent. The disease as now reported in France presents the same threatening aspect that it has in former years preceding its introduction into this country, and while it is entirely possible that we may escape the disease this year, it must be admitted that the facilities for its importation are much more numerous and rapid than ever before, and that the history of former invasions warrants the opinion that its reappearance here is probable at any time. Under these circumstances it becomes the duty of this Board to call the attention of those entrusted with the administration of sanitary laws, and the public, to the best known methods of preparing for and combating the disease.

The experience with former epidemics of cholera, in the light of modern research, has demonstrated the fact that there are three essential factors necessary to its prevalence as an epidemic in this country. (1) The contagium or specific germs of the disease, transported more or less directly from their only place of origin, in India. (2) Human beings afflicted with the disease in some of its stages, or clothing or merchandise infected by such persons, to carry these germs from place to place. (3) An inhabited town or place, properly prepared by the neglect of health requirements for the reception of these germs. A consideration of these factors naturally suggests the methods which would seem most successful in combating each of them.

As cholera has its origin only in India, and must be transported to this country in ships, it is conceded by all scientific sanitarians that an intelligently conducted quarantine, which would question the freedom from the disease of all travelers, immigrants, baggage and merchandise before embarkation or shipment from European ports; the strict surveillance of all suspicious persons and things while on shipboard, and, if necessary, the detention for treatment or disinfection of such persons or things on their arrival in this country, would effectually protect us from the ravages of this disease. A quarantine thus conducted would be a help rather than a hindrance to commerce. After the great epidemics of cholera and yellow fever in the last decade, a Na-

tional Board of Health was established for the United States, which instituted a system of quarantine of observation of this kind, but the absence of epidemics for the last few years has caused the practical abolition of this organization, and it is now well known that our general Government makes no systematic effort to protect the country from epidemic diseases. This excludes this method of combating the disease so far as we are concerned at present.

***How to Prevent its Spread.*** Cholera is not contagious in the ordinary sense of that term, and attendants upon those sick with it are rarely attacked with the disease. The infective cause or contagium is contained chiefly, if not entirely, in the matters which the patient discharges from the stomach and bowels, in his clothing soiled thereby, and may be on almost everything that comes in contact with him. It has been abundantly demonstrated that these discharges are not capable of reproducing the disease when fresh, but that after decomposing for a few hours, especially in the presence of dampness and filth, they become highly infective. Deposited without previous disinfection in a foul privy-vault, near a polluted well, or under other favoring local conditions of foul air and filth, the germs of the disease multiply with such infinite rapidity as to spread as if by explosion. These germs enter the system by means of the effluvia arising from such places, often in infected water, and possibly, sometimes in solid food. This infective property belongs to the discharges of those slightly affected by the disease as fully as to those of its advanced stage.

After cholera gains a foothold upon the continent, its infective cause or contagium is conveyed from place to place along the lines of human travel, chiefly by those so slightly affected by the disease as to yet be able to travel, or by clothing or other articles which have been in contact with the cholera-sick. As even the light and painless diarrhoea of the early stage, or light form of the disease, may, under favoring local conditions, infect the earth, the privies, and the water-supply wherever the travelers, from cholera districts may go, with our modern facilities for travel, its propagation is often very rapid after it has once become epidemic in one of our commercial centers. Then, too, as the period of incubation of cholera often lasts several days, a person may contract the disease in an infected place and travel to a distant one before being stricken down, to become a fresh center from which it may spread.

In view of these facts it is not strange that quarantines which attempt to prevent the importation into healthy districts of those sick with cholera, and things infected by them, have always had a strong hold upon the popular and even the professional mind. Nor, with the difficulty in recognizing the disease in its earlier stages, and the impossibility of detecting it during the period of incubation, is it strange that all such attempts have proved ineffectual, except on shipboard, where the cases are under observation long enough for the disease to fully develop, and in small isolated places where the quarantine can be made absolute. At any rate this is recognized to be true by the leading sanitarians of this country.

While inland quarantines and the fumigation of trains and travelers are as useless as they are annoying, as against this disease, an efficient local inspection service, which attempts to keep those coming into the locality from an infected district under sanitary observation, may be made of the highest value to such persons as well as to the community. The importance of the early recognition of the first case, and of the thorough destruction or disinfection of his dejections and of everything infected by them, should be

impressed upon the entire community as well as the medical profession. All the discharges from the body should be immediately and thoroughly disinfected while fresh and harmless, and all cast-off clothing, bedding and other articles soiled by contact with the patient should be promptly disinfected. A knowledge of these well demonstrated facts widely disseminated, would not only prevent the spread of the disease, but would do much to prevent the disgraceful panics and cruelty to the sick which so often attend it. Should cholera reach our shores, a brief statement showing what to do in its presence will be immediately sent to all parts of the State through the local health authorities.

***How to Prepare for the Disease.*** Having shown that no efficient National quarantine has been established to prevent the importation of Cholera into this country, and that an inland quarantine to prevent its spread is impracticable, it remains to consider the means to be resorted to before the disease reaches your locality. Experience has abundantly demonstrated the fact that cleanliness is the best protection against Cholera as it is against most other sickness. Although the germs of the disease are scattered broadcast during every epidemic, they cease to be reproduced beyond the boundary lines which separate the cleaned, drained and ventilated premises, from those which are filthy, undrained, crowded and unventilated. The disease can, and often, is imported into a healthy locality, but the conditions of filth in earth or water being absent, no extended series of cases are produced. In 1873 Louisville prepared for the disease, and had thirteen cases, chiefly imported, while it prevailed as an epidemic in nearly one hundred of the filthy, undrained towns and hamlets of the State.

It was thought that the disease was very much restricted during the last two epidemics in this country by attention to sanitary measures—especially in the large cities, and it is safe to say that our knowledge of the methods of resisting the disease has so greatly increased since then that no city or town which heeds the warning here given need suffer greatly. It should be borne in mind that measures of cleanliness taken before hand, are of far more importance as a protection against cholera than the removal or disinfection of filth after the disease makes its appearance. We would recommend therefore that all local boards of health and health officers, and the people themselves, begin at once the work of putting our cities, towns and country homes in the best possible sanitary condition. Accumulations of animal and vegetable matters in the streets, alleys and yards, and all privy vaults, cess pools, sinks, drains, cellars and all other places suspected of being dangerous to the public health should receive immediate attention. Tenement houses and all places thickly settled by negroes and the lower classes of whites should be rigidly inspected and put in the best possible sanitary condition, and the inspection should be frequently repeated during the summer. In this connection our people should be taught the wide distinction which exists between cleanliness and disinfection. Disinfection, as ordinarily applied to streets, gutters and premises, by means of carbolic acid and other remedies, without thorough cleansing before hand, are misleading and utterly useless. They only smell worse than the natural odors given off from such places. Such disinfection doubtless has some value after as thorough removal of the filth as possible, but should never take the place of this.

As the water supply is the most prolific medium for the spread of cholera, all public wells and springs should be carefully looked after by the health authorities, especially in localities where imperfect sewerage and drainage

render such sources of supply liable to contamination. Private wells and springs should be guarded against pollution by promptly and properly taking care of all the waste matters of the household.

The powers of health boards to do this work are clearly defined under our laws, and if any resistance is offered immediate steps should be taken to enforce the law and instruct our people that the public good is paramount to individual convenience and prejudice. After the health authorities have done their full duty, much remains for both public and private protection, which can only be done by the individual or household. Pure water, good ventilation, healthful food, scrupulous neatness of premises and person, regular and temperate habits, and in fact every other factor which is conducive to good health furnish the best means of protection against this and all other diseases.

Complaint is frequently and justly made by the local health authorities in Kentucky that the State has made small provisions for the execution of sanitary work or for the proper recognition of the laborious service required. This difficulty is common in the experience of most of the health boards of this country, and will disappear in proportion as the small powers and funds entrusted to them are judiciously used. In the presence of a threatened epidemic, the proper presentation of the necessity for such work for the public good, to the city and town councils and county courts will usually readily secure the necessary funds for its execution.

It is important for the public to understand that pains taken and costs incurred in this work will not be wasted whether cholera comes or not. The same unfavorable local conditions which will enable cholera to spread if its infective germs are imported into the State are the same conditions which day after day cause and spread other diseases, such as typhoid and scarlet fever, diphtheria and other filth diseases, which, though less alarming because they are more common and slower in their work, are far more destructive to life. The threatened invasion of cholera will prove a benefit, if, in preparing for it, we remove the causes of these diseases which produce a hundred fold greater mortality in Kentucky than cholera, and, in doing so, instruct our people that the same better habits and methods of living which prepare them to resist cholera, will also protect them against our more fatal every day plagues.

The duty of householders and physicians to give the city, town and county boards of health, having jurisdiction, prompt notice of the first and of every case of disease dangerous to the public health, and of such boards to take prompt measures for the restriction of the disease, have been so fully and so often set forth in circulars from this board that they need hardly be repeated here in connection with so dangerous a disease as cholera.

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Secretary.

PINCKNEY THOMPSON, M. D.,  
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Bowling Green, Ky., August, 1884.

