

Public Health Preparedness: What are Isolation and Quarantine?

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(This is part of a series of articles dedicated to public health preparedness.)

To contain the spread of a contagious illness, such as SARS, influenza, or smallpox, public health authorities use on many strategies. Two of these strategies are **isolation** and **quarantine**. Both are common practices in public health, and both aim to control exposure to infected or potentially infected persons. Both may be undertaken voluntarily or enforced by public health authorities.

The practice of quarantine, as we know it, began during the fourteenth century in an effort to protect coastal cities from plague epidemics. Ships arriving in Venice from infected ports were required to sit at anchor for forty days before landing. This practice, called quarantine, was derived from the Italian words *quaranta giorni* which mean 40 days. When the United States was first established, little was done to prevent the importation of infectious diseases. It was the continued yellow fever epidemics that led to the passage of Federal Quarantine Legislation by Congress in 1878. The list of quarantinable diseases is contained in an Executive Order of the President and includes cholera, diphtheria, infectious tuberculosis, plague, smallpox, yellow fever, and viral hemorrhagic fevers, such as Marburg, Ebola and Congo-Crimean.

Isolation: For People Who Are Ill

Isolation refers to the separation of persons who have a specific infectious illness from those who are healthy. It restricts their movement to stop the spread of that illness. Isolation allows for the focused delivery of specialized health care to people who are ill, and it protects healthy people from getting sick. People in isolation may be cared for in their homes, in hospitals, or in designated healthcare facilities. Isolation is a standard procedure used in hospitals today for patients with tuberculosis (TB) and certain other infectious diseases. In most cases, isolation is voluntary; however, many levels of government (federal, state, and local) have basic authority to enforce isolation of sick people to protect the public.

Quarantine: For People Who Have Been Exposed But Are Not Ill

Quarantine refers to the separation and restriction of movement of persons who, while not yet ill, have been exposed to an infectious agent and therefore may become infectious. Quarantine of exposed persons is a public health strategy, like isolation, that is intended to stop the spread of infectious disease. Quarantine is medically very effective in protecting the public from disease. States generally have authority to declare and enforce quarantine within their borders.

Recent Example of Effective Use of Isolation and Quarantine - SARS:

SARS and Isolation

During the 2003 global outbreak of severe acute respiratory syndrome (SARS), patients in the United States were isolated until they were no longer infectious. This practice allowed patients to receive appropriate care, and it helped contain the spread of the illness. Seriously ill patients were cared for in hospitals. Persons with mild illness were cared for at home. Persons being cared for at home were asked to avoid contact with other people and to remain at home until 10 days after the resolution of fever, provided respiratory symptoms were absent or improving.

SARS and Quarantine

In the United States, where there was limited transmission of SARS-CoV during the 2003 SARS outbreak, neither individual nor population-based quarantine of contacts was recommended. Centers for Disease Control and Prevention (CDC) advised persons who were exposed but not symptomatic to monitor themselves for symptoms and advised home isolation and medical evaluation if symptoms appeared. Individual quarantine was an integral part of the control measures used in countries more severely affected by the 2003 SARS outbreak. Quarantine of large groups was used only in selected settings where extensive transmission was occurring.

The Medina County Health Department (MCHD) is partnering with local agencies, including the Medina County Emergency Management Agency, to prepare for a pandemic event. Our staff is involved in training and exercises designed to test our response capabilities. The MCHD has identified several locations in the county for the dispensing of medicines, if needed, and continues to work with local officials on issues that impact the health of county residents. For more information call the Medina County Health Department at (330) 723-9688, (330) 220-6265, or (330) 336-4136, or visit www.medinahealth.org.

Sources:

PandemicFlu.gov

www.pandemicflu.gov/

Centers for Disease Control and Prevention

www.cdc.gov