Public Health Guidance for Community-Level Preparedness and Response to Severe Acute Respiratory Syndrome (SARS) Version 2

Core Document

I. Introduction

Severe acute respiratory syndrome (SARS) is a newly recognized, severe febrile respiratory illness caused by a previously unknown coronavirus, SARS-associated coronavirus (SARS-CoV). SARS emerged in the southern Chinese province of Guangdong in November 2002, but the worldwide epidemic was triggered in late February 2003 when an ill physician from Guangdong infected several other guests at a hotel in Hong Kong (CDC 2003a; Tsang 2003). These persons subsequently became the index patients for large outbreaks of SARS in Hong Kong, Vietnam, Singapore, and Canada (CDC 2003a; CDC 2003b; WHO 2003a).

Recognition of this new microbial threat prompted the World Health Organization (WHO) to issue a historic global alert for SARS on March 12, 2003 (WHO 2003a). WHO coordinated a rapid and intense worldwide response, which led to the identification of the etiologic agent, SARS-CoV, in less than 2 weeks (Drosten 2003; Ksiazek 2003; Peiris 2003) and implementation of control measures that contained the worldwide outbreak within 4 months. On July 5, WHO announced that SARS had been controlled and ended the global public health emergency response (WHO 2003b). During the epidemic, more than 8,000 probable SARS cases and nearly 800 deaths were reported to WHO from 29 countries (WHO 2003c).

The official end of the global public health emergency affirmed the rapid and monumental response effort but also signaled the need for continued vigilance. The rapidity of the spread of disease and the high levels of morbidity and mortality associated with SARS call for careful monitoring for the reappearance of SARS-CoV and preparations for the rapid implementation of appropriate control measures. SARS-CoV may still exist in human or animal reservoirs and thus have the potential to establish itself as a seasonal respiratory illness with ongoing epidemics (Breiman 2003; CDC 2003c; Guan 2003). Although the United States had only eight laboratory-confirmed cases of SARS-CoV disease and no significant local spread, it is clear that we are susceptible to the types of outbreaks experienced in Hong Kong, Singapore, Taiwan, and Toronto.

In the absence of a vaccine, effective drugs, or natural immunity to SARS-CoV, the only currently available public health strategies to limit the impact of SARS are rapid identification of infected persons and activation of the control measures that have proven effective in preventing transmission in other locales. These measures include global and community surveillance, detection and isolation of cases, identification and monitoring of contacts, adherence to infection control precautions, and, in some instances, measures (e.g., quarantine) to restrict the movement of potentially infected persons. These are the traditional public health tools used to prevent the spread of any infectious disease, and they constitute the fundamental strategy for controlling SARS-CoV.

The SARS outbreak during the spring of 2003 convincingly showed that delays in clinical recognition and isolation of SARS patients can trigger rapid transmission of SARS-CoV and generate substantial health, social, and economic consequences (CDC 2003b; CDC 2003d; Lee 2003; Tomlinson 2003; Varia 2003). Rapid detection of SARS cases and contacts and prompt implementation of control measures can, however, interrupt and contain transmission (CDC 2003b; Chan-Yeung 2003; Chowell 2003; Dye 2003; Lipsitch 2003; Riley 2003; Seto 2003; Tomlinson 2003; Varia 2003). Given the possibility that person-to-person transmission of SARS-CoV might recur, the healthcare and public health systems need to be prepared to quickly detect and control disease transmission and minimize the impact of SARS outbreaks. This document is designed to address this need.

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