



Supplement B: SARS Surveillance-Rationale and Goals

I. Rationale and Goals

The key to controlling a SARS outbreak is prompt detection of cases and their contacts, followed by rapid implementation of control measures. Identification of SARS cases is the basic step in prevention efforts, whereas contact tracing provides a means to focus case-finding and containment efforts on persons who are at greatest risk of SARS-CoV disease. Two features of SARS-CoV disease pose challenges for case surveillance. First, the early signs and symptoms are not specific enough to reliably distinguish SARS-CoV disease from other common respiratory illnesses. Second, existing laboratory diagnostic tests are not adequately sensitive early in the course of illness. Therefore, risk of exposure (i.e., to another case of SARS-CoV disease or to a setting where SARS-CoV transmission is occurring) is key to considering the likelihood of a diagnosis of SARS-CoV disease.

Potential sources of SARS-CoV for future exposures include persistent infection in previously ill persons or reintroduction to humans from an animal reservoir. In the absence of SARS-CoV transmission worldwide, the most likely sites of recurrence are the original site of introduction of SARS-CoV from animals to humans and locations where person-to-person SARS-CoV transmission previously occurred. Laboratories that contain live SARS-CoV could be a source of further transmission if compromised laboratory techniques result in laboratory-acquired infections (see Singapore Ministry of Health report (www.moh.gov.sg/corp/sars/pdf/Report_SARS_Biosafety.pdf) and report from the Department of Health, Taiwan (sars.doh.gov.tw/news/2003121701.html)). Because persons with SARS-CoV disease tended to appear in clusters (e.g., in healthcare facilities, households, and a few special settings) during the 2003 outbreaks, early signals of the reappearance of the illness in U.S. communities could include unusual clusters of unexplained pneumonia.

In the presence of person-to-person SARS-CoV transmission anywhere in the world, patients with SARS-CoV disease or sites of SARS-CoV transmission become the most likely sources of exposure. Contact tracing, the identification of persons who had contact with a potential case of SARS-CoV disease or may have been exposed while present in locations (e.g., hospitals) with known SARS-CoV transmission, is essential for the implementation of appropriate measures to reduce further spread of the disease.

The overall goals of SARS surveillance are to:

- Maximize early detection of cases and clusters of respiratory infections that might signal the re-emergence of SARS-CoV disease while minimizing unnecessary laboratory testing, concerns about SARS-CoV, implementation of control measures, and social disruption.
- If person-to-person SARS-CoV transmission recurs, maintain prompt and complete identification and reporting of potential cases to facilitate outbreak control and management.
- Identify and monitor contacts of cases of SARS-CoV disease to enable early detection of illness in persons at greatest risk.

For more information, visit www.cdc.gov/ncidod/sars or call the CDC public response hotline at (888) 246-2675 (English), (888) 246-2857 (Español), or (866) 874-2646 (TTY)