

# SARS Preparedness Checklist for State and Local Health Officials

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A planning checklist for widespread severe acute respiratory syndrome, modeled on an Association of State and Territorial Health Officials (ASTHO) pandemic influenza planning checklist, was developed jointly by ASTHO, the National Association of County and City Health Officials, and the Centers for Disease Control and Prevention. This checklist, distributed May 2003, has been widely used.

In March 2003, the number of cases of severe acute respiratory syndrome (SARS) was increasing daily worldwide, and several cities were having difficulty bringing its transmission under control (1). SARS appeared to have pandemic potential, as all persons worldwide were susceptible and the disease was, under certain conditions, readily spread from person to person. The Centers for Disease Control and Prevention (CDC) developed a multifaceted response to this worldwide and domestic threat, organized in a wide range of investigative and response teams. As part of this response, a team was created and tasked with identifying the types of public health response that would be needed in the United States at various stages if a SARS pandemic occurred, with widespread disease in the United States and with transmission in health care facilities and the community. The team included members with experience in planning for pandemic influenza and for smallpox control, should that disease reappear. Several influenza planning documents had been produced and provided support and encouragement to state and local health departments to develop their own influenza pandemic plans (2).

In examining existing influenza planning documents, the team became aware of a pandemic influenza planning checklist designed for state health officials, which had been produced and disseminated as part of a larger influenza planning guidance document by the Association of State and Territorial Health Officials (ASTHO) (3). This document identified a wide range of topics and issues that

would need to be considered at the state level in planning for pandemic influenza, ranging from ensuring adequate legal authority and issuing of emergency declarations to organizing volunteer medical assistance, coordinating healthcare services and emergency provision of vaccine and antiviral medications, communicating with healthcare providers and the public, and providing laboratory and epidemiology services. The team believed that this well-received checklist could, with relatively minor modifications, be adapted for SARS planning, at both the state and local levels, to ensure that important preparedness issues were recognized and addressed by SARS planning teams. The checklist might serve as the outline for a SARS plan or be used in review of an existing or developing plan to ensure that key issues were addressed.

A joint workgroup of ASTHO and the National Association of County and City Health Officials (NACCHO) members and staff and CDC representatives convened by telephone in early April 2003. As a result of a series of conference calls, the checklist was modified to address local and district as well as state health officials' roles; surveillance, epidemiologic investigation, isolation, and quarantine; and transmission in healthcare settings. The material on vaccination and antiviral drug treatment was moved to an appendix.

The revised checklist (Appendix) was reviewed and approved by appropriate committees and managers of ASTHO, NACCHO, and CDC (National Center for Infectious Diseases). It was posted as a joint NACCHO-ASTHO document on the Web sites of both organizations on May 29, 2003 (4). Through electronic newsletters, NACCHO and ASTHO each alerted their members that the document was available. For example, NACCHO emailed approximately 3,000 local health department managers, 1,547 local health department immunization coordinators, and approximately 1,600 local health department bioterrorism coordinators. The checklist was also included in NACCHO's Public Health Dispatch of July 2003, which is distributed by regular mail to all NACCHO members (5). ASTHO distributed the checklist by email to each state health official, other senior public health staff, and affiliate

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organizations on May 30, 2003, and notified approximately 1,200 public health personnel through the print version of the ASTHO Report. During June and July 2003, the checklist was accessed approximately 1,600 times on the NACCHO Web site.

On May 28 and 29, 2003, NACCHO used the checklist as the organizing document for a 2-day working meeting in Chicago, Illinois, of representatives of more than 20 large city health departments, held to develop recommendations for managing possible epidemic SARS in metropolitan areas. The checklist was presented and discussed in a plenary session of the July 9–11 ASTHO meeting of senior deputies in Park City, Utah. The checklist was favorably cited July 29, 2003 by Dr. Marjorie Kanof of the U.S. General Accounting Office in congressional testimony about national readiness for a resurgence of SARS (6).

The checklist has been used by state public health agencies as a guiding document for SARS preparedness planning and has been included as an appendix in some state SARS public health emergency response plans. In addition, the Chicago Department of Health is using the checklist to make plans for dealing with SARS control in its pediatric population through pediatric providers. The Santa Clara (California) County Health Department has used the checklist to work with its hospitals and clinical laboratories in coordinating their SARS plans. The Dallas County Health Department has used it to review legal authority issues and to work with hospitals and law enforcement on isolation and quarantine issues (J. Ransom, unpub. data). As experience accumulates from using the checklist as a framework for local and statewide SARS planning, the document may be revised. As of December 2003, SARS transmission is not known to be occurring anywhere in the world (7). The quick development and widespread acceptance of this checklist suggest that with periodic updating and modification such a planning document can be a useful tool for managing serious infectious disease threats. The value of plans developed using this checklist should be assessed in each community by carrying out realistic table-top and field exercises that involve all partners identified in the plan.

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## Appendix. State and Local Health Official Epidemic SARS Checklist

### LEGAL AND POLICY ISSUES

- 1. My jurisdiction has a draft or formally adopted epidemic SARS plan.
- 2. Agreements have been obtained with my state's health-care insurers, Medicaid program, and healthcare product and service providers for cooperation with public health recommendations during an epidemic.
- 3. I have reviewed with legal counsel my jurisdiction's laws and procedures on quarantine, isolation, closing premises, and suspending public meetings and know how to implement them to help control an epidemic.
- 4. I am familiar with my state's medical volunteer licensure, liability, and compensation laws for in-state, out-of-state, returning retired, and nonmedical volunteers.
- 5. I know whether my state allows hospitals and other licensed healthcare institutions to use temporary facilities for provision of medical care in the event of a public health emergency.
- 6. My jurisdiction's epidemic plan addresses Worker's Compensation and Unemployment Compensation issues related to healthcare and other workers missing work because of isolation or quarantine.
- 7. I have identified any deficiencies in my jurisdiction's laws and procedures on quarantine, isolation, and related capacities and initiated steps to have those deficiencies corrected.
- 8. I know what provisions are in place, if any, for compensation of persons with economic or health injury resulting from needed SARS control measures and for limitation of liability of healthcare providers and agencies.

### AUTHORITY

- 9. My state has an executive SARS epidemic planning committee that oversees the planning process, in cooperation with local health agencies.
- 10. My state has identified the authority responsible for declaration of a public health emergency and for officially activating our plan during a SARS epidemic.
- 11. My jurisdiction has identified key stakeholders responsible for development and implementation of specific components of the SARS epidemic plan, including enforcement of isolation, quarantine, and closure and decontamination of premises.
- 12. My jurisdiction's elected officials, appointed officials, and other agency heads know their respective responsibilities in the event of an epidemic.
- 13. My jurisdiction has a command system in place (e.g., the Incident Command System) to govern roles and responsibilities during a multiagency, multijurisdictional event.

- 14. I am familiar with the controlling authority over intrastate and interstate modes of transportation, should these need to be curtailed during an epidemic (e.g., airplanes, trains, ships, highways).
- 15. My staff has relationships with health authorities of adjoining counties or states and with federal agencies to ensure effective communication during a public health emergency.
- 16. My jurisdiction has identified an overall authority in charge of coordinating different medical personnel groups during an epidemic.
- 17. I know personally the key persons from the state and local authorities who will assist in maintaining public order and enforcing control measures, if needed, during an epidemic.
- 18. I am familiar with the procedure for enlisting the National Guard's assistance during a public health emergency.

#### **SURGE CAPACITY**

- 19. I know how to access current recommendations on treatment of cases and prevention of transmission in the hospital, long-term, care and home care settings.
- 20. My jurisdiction's emergency response planning has involved healthcare product and service providers to determine how to best prevent and control disease spread and manage the healthcare of the population during an epidemic.
- 21. I am familiar with the required protocol for securing needed emergency healthcare services and supplies during a public health emergency.
- 22. My jurisdiction has identified ways to augment medical, nursing, and other healthcare staffing to maintain appropriate standards of care during an epidemic.
- 23. My jurisdiction has identified ways to augment public health laboratory, epidemiology, and disease control staffing to meet emergency needs and in the event public health workers are affected by an epidemic.
- 24. My jurisdiction has a process to recruit and train medical volunteers for provision of care and vaccine administration during a public health emergency.
- 25. My jurisdiction has identified alternate facilities where overflow cases from hospitals and well persons needing quarantine away from home can be cared for and has developed processes with Emergency Medical Services to assess, communicate, and direct patients to available beds.
- 26. My jurisdiction has identified facilities for outpatient and inpatient care of children with SARS and their families.
- 27. My jurisdiction's epidemic plan addresses the mechanics of how isolation and quarantine will be carried out, such as providing support services for people who are isolated or quarantined to their homes or temporary infirmary facilities and protection for workers providing these services.
- 28. My jurisdiction has a plan for ensuring that appropriate personal protective equipment, including N-95 or higher level respirators, is made available for persons whose job requires exposure to people with SARS, and that needed training and fit-testing are provided.
- 29. My jurisdiction has a plan for dealing with mass mortality, including transportation and burial of bodies.
- 30. My jurisdiction has a plan for providing mental health services to mitigate the impact of a SARS epidemic.

#### **COMMUNICATIONS AND EDUCATION**

- 31. I have conveyed the importance of epidemic preparedness, and its overlap with bioterrorism preparedness, to my jurisdiction's chief executive and to other state and local law and policy makers.
- 32. I know personally the key persons from public health agencies, the medical community, and the political community with whom I will need to communicate during an epidemic.
- 33. My jurisdiction has begun educating the public on epidemic SARS to instill acceptance of the epidemic response (including quarantine and isolation) and to optimize public assistance during an epidemic.
- 34. My jurisdiction has opened a regular channel of communication and begun educating healthcare providers (including first responders) and their organizations and unions on epidemic SARS (including diagnosis, treatment, and management of cases and contacts to prevent transmission).
- 35. My jurisdiction has opened a regular channel of communication and begun educating chief executive officers of healthcare organizations on epidemic SARS (including management of patients in healthcare settings, health care worker protection, physical facility needs, voluntary or forced furloughs of exposed workers, etc.).
- 36. My jurisdiction has established a multicomponent communications network and plan for sharing of timely and accurate information among public health and other officials, medical providers, first responders, the media, and the general public.
- 37. My jurisdiction has begun identifying and planning to produce and provide education and information materials for media, providers, the public, and occupational groups whose duties may expose them to SARS, in appropriate languages and in forms suitable for limited literacy populations.
- 38. Whoever is selected as the primary public spokesperson for my jurisdiction during an epidemic is ready to clearly and consistently answer the following types of questions:

How is the SARS-associated coronavirus (SARS-CoV) transmitted?

How long are people infectious after they have SARS?

What is isolation? What is quarantine?

What is the justification for isolation of cases and quarantine of contacts?

What is the legal authority for isolation of cases and quarantine of contacts?

What is the difference between a probable and a suspected SARS case?

Who should be tested for SARS-CoV?

What can members of the public do to protect themselves?

In the event a vaccine or antiviral treatment become available, what specific priority groups might be vaccinated or treated first?

- ❑ 39. My jurisdiction has identified the most effective media to get messages out to the public during an epidemic (e.g., TV, radio, print media, internet, Web sites, hotlines).
- ❑ 40. My jurisdiction has planned how to coordinate state, local, and federal public messages and ensure they are consistent and timely.

#### LABORATORY AND SURVEILLANCE

- ❑ 41. In the event of a SARS epidemic, I will have available daily counts of key community health indicators, such as numbers of emergency department visits, hospital admissions, deaths, available hospital beds and staff, facility closings, numbers of contacts being traced, and numbers under quarantine.
- ❑ 42. The public health laboratory that serves my jurisdiction can test for SARS-CoV by serology, polymerase chain reaction, or both.
- ❑ 43. My state has identified those laboratories that can test for SARS-CoV.
- ❑ 44. The public health laboratory that serves my jurisdiction has linked to clinical laboratories and provided training on the use of SARS tests, biosafety, specimen collection, packing and shipping, and rule-out testing.
- ❑ 45. Public health laboratories in my state have computerized record-keeping to help with data transmission, tracking, reporting of results to patients and facilities, and analysis during an epidemic.
- ❑ 46. My jurisdiction has determined how to assess and document the spread and impact of disease throughout the population, including special populations at risk (such as healthcare workers and first responders), during a SARS epidemic, including enhancements to routine surveillance.
- ❑ 47. My jurisdiction has computerized record-keeping for cases, suspected cases, contacts, and persons under public health isolation or quarantine orders to help with data transmission, tracking, and analysis during an epidemic.
- ❑ 48. My jurisdiction's epidemiology staff, in cooperation with other public health agencies, has the capacity to investigate clusters of SARS cases determine how disease is being transmitted trace and monitor contacts implement and monitor quarantine measures determine whether control measures are working.
- ❑ 49. My jurisdiction has plans for educating healthcare providers about recognition and reporting of SARS, about the current case definition, and about sources of current information on all aspects of SARS.

#### PREPAREDNESS IN OTHER AGENCIES

- ❑ 50. The emergency response system is ready to deal with epidemic SARS, as called for in an all-hazards or epidemic plan.

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- ❑ 51. My jurisdiction has carried out a community-wide epidemic SARS table-top or field exercise, to train on and evaluate its epidemic plan.
- ❑ 52. Community partners such as hospitals, EMS services, law enforcement agencies, healthcare practitioners, environmental hygiene/remediation services, news media, schools, and colleges know what part they are expected to play during an epidemic and are prepared to do so.
- ❑ 53. The law enforcement and court system in this jurisdiction are prepared to enforce isolation and quarantine orders and to promptly adjudicate appeals to public health orders, as provided by statute.

#### References

1. Outbreak of severe acute respiratory syndrome—worldwide, 2003. *MMWR Morb Mortal Wkly Rep* 2003;52:226–8. Erratum in: *MMWR Morb Mortal Wkly Rep* 2003;52:284.
2. National Vaccine Program Office, Centers for Disease Control and Prevention. Pandemic influenza: a planning guide for state and local officials (draft 2.1), 2003. [cited 2003 Dec 9]. Available from: URL: <http://www.cdc.gov/od/nvpo/pubs/pandemicflu.htm>
3. Misegades L. Preparedness planning for state health officials: nature's terrorist attack, pandemic influenza [monograph on the Internet]. Washington: Association of State and Territorial Health Officials; 2002. [cited 2003 Dec 9]. Available from: URL: <http://www.astho.org/pubs/PandemicInfluenza.pdf>
4. State and local health official epidemic SARS checklist. Washington: Association of State and Territorial Health Officials; 2003. [cited 2003 Dec 9]. Available from: URL: <http://www.astho.org/pubs/sarschecklist.pdf>
5. State and local health official SARS epidemic checklist. Public health dispatch. Washington: National Association of City and County Health Officials; 2003 July. [cited 2003 Dec 9]. Available from: URL: <http://www.naccho.org/files/documents/NACCHO-ASTHO-SARS-Checklist.pdf>
6. Testimony before the Permanent Subcommittee on Investigations, Committee on Governmental Affairs, U.S. Senate on July 30, 2003, by Marjorie E. Kanof, Government Accounting Agency Director for Health Care—Clinical and Military Health Care Issues. Severe acute respiratory syndrome: established infectious disease control measures helped contain spread, but a large-scale resurgence may pose challenges. GAO-03-1058T. [cited 2003 Dec 9]. Available from: URL: <http://www.gao.gov/new.items/d031058t.pdf>
7. World Health Organization. Features, July 5, 2003. SARS: breaking the chains of transmission. [cited 2003 Dec 9]. Available from: URL: <http://www.who.int/features/2003/7/en>

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