

06-EH-02

Committee: Environmental Health

Title: Improving the Tracking of Events, Exposure and Disease during a Chemical/Radiological Disaster or Terrorist Event.

Statement of the Problem:

Initially national and state terrorism public health preparedness focused upon infectious disease transmission such as small pox planning and surveillance for agents such as anthrax. Thus the organizational leadership, staff and funding has largely been placed with communicable disease programs. More recently the public health preparedness approach has turned to a more holistic all hazards model for preparedness, yet the resource base has contracted rather than expanded. All hazards approaches present additional complex multi-jurisdictional coordination issues within national, state and local organizations. Much of the experience gained while developing communicable disease focused preparedness plans is relevant to all hazards approaches that involve chemical and radiological responses.

Chemical and radiological terrorism and especially accidents remain a threat in the United States. Public health agencies must be prepared to adequately detect, respond to, and manage the crisis and recovery phases of such events. Public health agencies should be prepared in the initial stages of a response to capture epidemiological and environmental data that would be essential to describe both immediate and long-term exposures and health outcomes. Since response to chemical or radiological terrorist events will sometimes involve multiple jurisdictions, it is important that this information can be shared in a standard, coordinated fashion. Currently there is no consensus on which tools to use and little designed interoperability between existing systems.

Hurricane Katrina, while a natural disaster, demonstrated some of the challenges of obtaining and sharing information in a multi-jurisdictional emergency. Katrina affected multiple states and counties (i.e. was "multi-jurisdictional"). Responding to Katrina required information about events (fires, chemical spills, rail and traffic events), environmental exposures (to contaminated water and fungi) and human morbidity and mortality. This information originated from multiple jurisdictions and could have been used by federal agencies to provide a comprehensive picture of the disaster had it been collected in a standard format or on interoperable collection tools. However, this exchange proved to be difficult in part because different federal agencies and response partners required different formats for the same information.

CSTE's 2003 report, *National Assessment of the Status of Planning for Public Health Preparedness for Chemical, Radiological, and Contaminating Terrorism*, found that state health departments generally have not established the interagency coordination or information sharing infrastructure needed for a large-scale chemical or radiological disaster. Therefore, on May 16-17, 2006, CSTE and CDC convened experts from 30 states and a number of federal agencies to survey newly developed computer tools for collecting information on events, morbidity, mortality, outdoor and indoor exposures as well as tools for conducting case control studies and for "case-management" of subjects in multiple jurisdictions who require the completion of some protocol of specialized evaluation and decontamination. The assembled experts identified next steps needed to achieve readiness for coordinated multi-jurisdictional information gathering and sharing.

Statement of the desired action(s) to be taken:

The state experts at the May 2006 meeting recommended that CDC, EPA, DHS and CSTE take the lead to convene working groups of state and federal officials to provide in-depth assessments and reports on topics such as:

1. Determining best practices regarding memoranda of agreements between local, state and federal agencies which address how to contribute multi-jurisdictional information and access to information during and after a disaster. These should reflect local, state and federal laws regarding environmental and human data availability. An inventory of such MOUs should be made available on CSTE's web site.
2. Identifying and recommending standard questions, formats, and tools that federal agencies and states have developed and used for obtaining multiple types of information required in a multi-jurisdictional emergency. An inventory of such questions or links to data bases containing such questions should be made available on CSTE's web site.
3. Evaluating actual examples of past crises experience with convening representatives of multiple jurisdictions to modify existing information gathering instruments so that they fit the current situations in the various jurisdictions. Determine if there are better ways to do this considering a range of electronic communication technologies and insights from skilled facilitators.

Public Health Impact:

Timely and accurate information about events, exposure, morbidity and mortality is essential for managing the immediate and delayed impact of multi-jurisdictional chemical/radiological disaster and terrorist events as well as other public health events, such as pandemic flu or natural disasters. The coordinated flow of data collection and rapid communication of results are critical to success. The three topic areas mentioned above have implications for infectious events as well as chemical and radiological events. Workgroups should include colleagues who deal with communicable disease since they may have solutions that are applicable to chemical/radiation issues and those who have worked on chemical/radiation issues may have some solutions of use to those concerned with infectious events.

Coordination:**Agencies for Response:**

- (1) Julie Gerberding, MD, MPH
Director
Centers for Disease Control and Prevention
1600 Clifton Road MS D14
Atlanta, GA 30329
404-639-7000
julie.gerberding@cdc.hhs.gov
- (2) Stephen L. Johnson
Administrator
Environmental Protection Agency
USEPA Headquarters
Ariel Rios Building
1200 Pennsylvania Avenue, N. W.
Mail Code: 1101A
Washington, DC 20460
202-564-4700
johnson.stephen@epa.gov
- (3) Michael Chertoff
Secretary
Department of Homeland Security
U.S. Department of Homeland Security
Washington, DC 20528
202-282-8000

Agencies for Information

- (1) Paul E. Harris, MD, MBA
Executive Director
Association of State and Territorial Health Officials
1275 K Street, NW Suite 800
Washington, DC 20005-4600
(202) 371-9090
ghardy@astho.org
- (2) Edwin G. Foulke, Jr.
Assistant Secretary of Labor
Occupational Safety and Health Administration
200 Constitution Avenue, NW
Washington, DC 20210
- (3) Patrick Libbey
Executive Director
National Association of City and County Health Officers
1100 17th Street 2nd floor
Washington, D.C. 20036
202-783-5550
plibbey@naccho.org

- (4) Mike Johanns
Secretary Of Agriculture
1400 Independence Avenue, SW
Washington, DC 20250-9410
- (5) Andrew C. von Eschenbach, M.D
Acting Director
US Food and Drug Administration
5600 Fishers Lane
Rockville MD 20857
- (6) Dirk Kempthorne
Secretary of the Interior
Department of the Interior
1849 C Street, N.W.
Washington DC 20240
- (7) Nils J. Diaz, Ph.D.
Chairman
U.S. Nuclear Regulatory Commission
Office of Public Affairs (OPA)
Washington, D.C. 20555
- (8) Norman Y. Mineta
Secretary of Transportation
US Department of Transportation
400 7th Street, S.W.
Washington D.C. 20590

Submitting Author:

- (1) Raymond Richard Neutra, MD, DrPH
Chief, Division of Environmental and
Occupational Disease Control
California Department of Health Services
850 Marina Bay Parkway
Room P3111
Richmond, CA 94804
510-620-3126
rneutra@igc.org

Co-Author:

- (1) Henry A. Anderson
Chief Medical Officer
Wisconsin Division of Public Health
1 W. Wilson St
Room 150
Madison, WI 53702
608-266-1253
anderha@dhfs.state.wi.us