Community Preparedness and Response Workgroup
DRAFT Starter List of Research Priorities

Purpose of Starter List

The Starter List is for discussion purposes at this stage of the CDC Research Agenda Development Process. It is a DRAFT listing of broad research concepts that are not yet integrated into a specific research agenda for CDC.   Suggestions and modifications to the Starter List will be used to develop a draft CDC-wide Research Agenda that addresses critical research needs and health protection goals.

There are seven focus areas on the Starter List, one corresponding to each of the six Research Agenda Development Workgroups, plus a seventh for cross-cutting research that serves as a foundation for many types of public health research and programs.

You will find the Starter List for Community Preparedness and Response research ideas on the following pages of this document. The Starter List for other focus areas is also available on the OPHR Website (see URL below).

Your opportunities for input

You will have two opportunities for input to the CDC-Wide Research Agenda development process:

1) **Commenting on the Starter List**

We welcome your input on both the Starter Lists and the CDC-wide Research Agenda development process. We will be accepting public comments on the Starter List and process through April 15, 2005. You can provide suggestions and comments by visiting the following URL:

http://www.rsvpbook.com/custom_pages/792_CDC_comments.php

2) **Commenting on the Public Comment Draft**

Later this summer, you will have another opportunity to provide input by offering comments on the Public Comment Draft of the CDC-wide Research Agenda. The Public Comment Draft will be published in the *Federal Register* and on the CDC Office of Public Health Research (OPHR) Website below. The target date for release of the public comment draft is mid-June 2005.

The OPRH website will also provide periodic updates on the Research Agenda development process.   Please visit our Website at:

http://www.cdc.gov/od/ophr/cdcra.htm

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Theme ID#	Research Theme Title and Description	Examples of Research Activities
C 1	**Public Health and Medical Surveillance Systems** Develop and integrate systems to detect, report, and investigate illness and injury associated with intentional and unintentional emergent health threats.	• Provide access to and use information systems and new technologies to initiate a public health response; and • Integrate traditional and nontraditional data systems to improve the rapid identification of emergent health threats.
C 2	**Rapid Clinical Diagnostic Capabilities** Develop or enhance rapid clinical diagnostic capabilities to identify exposures, of public health importance, to potentially hazardous agents.	• Develop rapid toxicology laboratory screening procedures, rapid screening tools (e.g., Ora-Quick and Ora-Sure for HIV infection), and quicker deployment of available technology.
C 3	**Environmental Detection and Decontamination** Develop or enhance capabilities to rapidly detect, identify, and decontaminate environments or persons (who have been exposed) that pose a risk to public health and safety.	• Clean up anthrax, including helping to make the determination of how clean is clean; • Quantify risks associated with mold exposure in the home and work environments; • Outline risks associated with exposure to chemicals; and • Describe risk associated with injury events.
C 4	**Risk Assessment and Management Strategies** Identify, develop, and evaluate strategies to prevent, mitigate, and treat adverse health effects caused by emerging health threats.	• Explore strategies used by public and private (e.g., chemical industry) institutions to determine the feasibility of a more broadly developed applied risk reduction strategy for worker safety guidelines.
C 5	**Critical Environmental Infrastructure Systems and Process** Assess and prioritize methods and practices to better protect environmental systems that are critical for maintaining healthy populations.	• Develop and evaluate critical control engineering evaluation and hazard analysis of food, water, waste management, power supply, hazardous material transport, and/or air handling systems.

Theme ID#	Research Theme Title and Description	Examples of Research Activities
C 6	**Public Health, Mental Health, and Medical Response Systems** Assess and identify strategies and model practices for integration of public health, mental health, and medical response systems to respond to terrorism, other disasters, and public health emergencies.	• Assess optimal roles for practitioners from each system while avoiding duplication of efforts; • Examine organizational strengths of response system components; and • Identify gaps in expertise that are required for system responses.
C 7	**Human Migration Issues** Assess and evaluate the role of human migration in the public health response to acts of terrorism, other disasters, and public health emergencies from the global public health perspective.	• Develop strategies to respond to the speed at which humans can advertently or inadvertently transport and transmit infectious pathogens and cause human-to-human transmission of novel influenza viruses.
C 8	**Risk Perception and Protective Behaviors** Develop strategies to identify vulnerable populations and communities and adapt the public health response system to accommodate heterogeneous social and physical contexts.	• Assess the impact of culture, poverty, past risk experiences, religion, language, and social norms on judgments, reasoning, and behavioral responses to extreme events and public health emergencies.
C 9	**Support Front-line Personnel Involved in Health Protection Functions** Improve and evaluate the countermeasures, personal protective equipment, and health policy guidelines that support the public health workforce and maximize its members' safety, personal resilience, self-confidence, and performance.	• Continue to evaluate the emerging technologies for respirators used by health personnel; and • Evaluate practices and guidelines used to distribute and administer mass prophylaxis/antidote (e.g., through the Strategic National Stockpile).

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C 10	**Risk Management Strategies** Identify, develop, and assess comprehensive risk management strategies for heterogeneous populations with massive numbers of casualties, health anxiety, and potentially traumatic exposures due to disasters, terrorism, and other adverse events.	• Develop and evaluate a screening and intervention process to identify community members who are at risk for, or are experiencing symptoms of, posttraumatic stress disorder; and • Identify the impact of a major mass casualty event on community infrastructure and daily functions.
C 11	**Rapid and Accurate Risk Information and Public Health Recommendations** Identify and develop effective communication strategies, tools, and mechanisms to facilitate rapid and accurate risk information and public health recommendations to affected populations.	• Identify effective strategies that maintain trust (pre-event, during the event, the event and post-event) when conveying uncertainty in risk information; and • Prepare key personnel and members of affected communities for changes in exposure and other risk information, given a dynamic and evolving public health emergency or extreme events.
C 12	**Public Health Workforce** Define and assess the knowledge, attitudes, and proficiencies needed by the health workforce to successfully ensure the safety and well-being of the community.	• Identify and prioritize the critical abilities that ensure the appropriate level of knowledge and proficiency for those preparing for, responding to, or recovering from a mass casualty or disaster event; and • Identify shortages in the workforce and knowledge gaps among front-line practitioners or public health decision-makers.
C 13	**Effective Communication Strategies** Develop effective communication strategies (e.g., content, timing, dissemination, and monitoring of reactions) to address risk expectations and acceptable responses to public health emergencies to increase the resilience of affected populations.	• Plan media coordination; • Consider cultural, language, and social status; • Reset the expectation of zero casualty (there will be those who get "hit"); and • Increase the ability to handle uncertainty and public trust in government institutions by engaging in pre-event efforts to build public trust and set appropriate expectations.

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C 14	**Exposure and Impact Data** Develop model and practical strategies and capacity to collect appropriate exposure and impact data during, or soon after, an event for the purposes of needs assessment, resource allocation, and long-term tracking (i.e., health registries).	• Develop and/or modify data collection instruments and other technology options to collect and integrate data; and • Develop a health registry to track long-term disability related to illness or injuries suffered as a result of a disaster or other public health emergency and long-term followup to assess health risks and vulnerabilities resulting from an exposure to chemical or biologic pathogens.
C 15	**Strategic Communications Technology** Optimize strategic communications technology to allow for efficient event response actions across multiple jurisdictions and to ensure appropriate operational redundancies and interoperability among critical infrastructure systems.	• Develop communications within and among healthcare facilities, first responders, and public health investigations; and • Evaluate the impact of new and emerging technologies on improving communication among various responders to support medical triage, resource allocation, and communication with the public.
C 16	**Community Actions** Describe and explain how diverse communities detect, interpret, respond to, and communicate perceived and actual public health threats.	• Enhance the existing concept of evaluating and clearing public health messages for accuracy to include an assessment of the messages' acceptability; • Develop and test metrics for assessment; and • Identify mechanisms or pathways responsible for differences in adaptive response, recovery, and resilience in the face of adversity, with an emphasis on the cultural and social contributors to individuals' reasoning about risk.
C 17	**Local and Regional Operational Strategies** Optimize local and regional operational strategies for information exchange, decision-making, command and control, and role/function clarity for public health emergencies.	• Develop and evaluate model practices for incident command and control; • Evaluate the impact of using well-defined role criteria for emergency event responders on the efficiency of an event response; and • Examine the impact of common language on the functioning of an emergency response team.

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C 18	**Community and Regional Response** Assess and evaluate strategies to model community-level and regional-level response to test system capacity and the ability of the system to rapidly and effectively recover essential infrastructure functions such as communications and power supply.	• Develop and test assessment strategies for drills and mock events to identify strategies that can be used to recover essential infrastructure functions. Drills and mock events would include novel practices that may have an impact on infrastructure function.