

Terrorism Preparedness

Ensuring successful collaboration between government agencies
and the health care industry to prevent and respond to acts of terrorism.

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Health Care Continuity Management Team
September 2002



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Executive Summary

As the world’s largest private health care system, with nearly 8.4 million members, Kaiser Permanente acknowledges a responsibility to be an active participant in terrorism preparedness efforts. Our scope of services and integrated health care delivery system provide us the abilities and interest to partner with government agencies and others in the health care industry to help prevent, prepare for, and respond to medical emergencies resulting from terrorist attacks.

Following the September 11 tragedies and subsequent anthrax attacks, we expanded our disaster planning capabilities to include terrorism preparedness. While undertaking this comprehensive planning process, we also faced several real-life situations that tested our ability to respond quickly and effectively to incidents of bioterrorism and repercussions from the September 11 tragedies. As a result, we have identified “barriers to success” that require government and industry cooperation to ensure that critical health care functions will continue during major emergencies.

We hope that this white paper sparks a continuing dialog about how government agencies and the health care industry can work together for the benefit of all. The following table shows the barriers we have identified as well as our recommendations for improvement:

**Terrorism/Disaster Preparedness
 Barriers and Recommendations**

Barriers	Recommendations
Lack of coordinated advance planning before an event occurs.	<ul style="list-style-type: none"> • Appropriate governmental and public health agencies should establish processes with hospitals and health care providers for planning, consultation, and coordination on appropriate stockpiles and sources of supplies, vaccines, and antibiotics. • Hospitals and health care providers should share best practices in emergency preparedness. • Integrate terrorism preparedness, including bioterrorism preparedness, into ongoing community emergency/disaster planning. • Government and the health care industry should determine the level of resources necessary to conduct reliable threat assessment evaluations.
Lack of mechanisms for incident reporting and communication.	<ul style="list-style-type: none"> • Designate and widely communicate one governmental single point of contact for incident reporting. • Provide resources for public health agencies to develop effective community-wide syndromic surveillance systems.

Barriers	Recommendations
No clear process for information dissemination.	<ul style="list-style-type: none"> • Federal, state, and local agencies should develop a streamlined process to convey information about potential/current threats and emergency events, both within layers of government, and to the health care industry and other first responders. • Intelligence agencies, public health agencies, and the health care industry should develop linkages, so that health care first responders can successfully prepare for potential threats, and respond effectively if they do occur.
Confusion over jurisdictional, regulatory, and governmental responsibilities.	<ul style="list-style-type: none"> • Starting with the Office of Homeland Security, governmental and regulatory agencies should establish and communicate clear lines of authority for all events, from criminal activities to public health incidents. • Governmental and public health agencies should establish a single point of contact for hospital/health care responders, both for policy and preparedness issues, and for emergency events. • Public and private entities should work together to improve policy and emergency coordination among federal/state, state/local, local/health care providers and hospitals. Examples include defining lead agencies for each potential disaster, establishing a chain of custody for evidence collection, and providing guidelines for federal assistance.
Obstacles to filling human resources needs.	<ul style="list-style-type: none"> • States should adopt an emergency procedure for licensing out-of-state health care workers during disaster/terrorist situations requiring a significant medical response.
Lack of clinical protocols and medical information.	<ul style="list-style-type: none"> • The U.S. Centers for Disease Control and Prevention (CDC), working collaboratively with health care organizations and experts, should develop clinical protocols for multiple potential disaster scenarios, including bioterrorism, chemical, nuclear, and radiologic incidents. These recommendations must be widely disseminated and widely accepted by medical experts. • The federal government and the pharmaceutical industry should make it a high priority to encourage the development of effective vaccines and pharmaceuticals to protect the public against bioterrorism and other terrorist incidents.
Lack of coordinated training programs.	<ul style="list-style-type: none"> • Government agencies and the health care industry should jointly develop core elements of training for various responders and the general population.

For each identified barrier to success, Kaiser Permanente proposes ways in which we are prepared to provide special assistance. Examples include:

- Our organization is making its clinical protocols available to the U.S. Centers for Disease Control and Prevention (CDC), public health agencies, and others in the health care industry.
- We can share our expertise in facilities planning, clinical protocols, education, communications, and National Emergency Operations Network with other hospitals and medical office providers.
- We can share our experience in conducting a national threat analysis and building a subsequent, targeted mitigation strategy.
- Our organization is pilot testing a syndromic surveillance system in one California county, working with the local public health department and local hospitals.
- Our communications staff and information technology systems can be used to communicate with members, the media, and the general public during an emergency.
- Our Kaiser Permanente Vaccine Study Center is participating in a study that will test the effectiveness of two versions of the smallpox vaccine.
- We will continue to work with drafters of the CDC Model State Emergency Health Powers Act, along with state and federal legislators, on legislative proposals to improve emergency preparedness.

Building on a health care continuity management model already in place, Kaiser Permanente has launched a rigorous threat assessment process to plan for major medical emergencies. Work groups organized around specific disciplines, including clinical, facilities, people, supply chain, public policy, community linkages, and communications/education are developing new protocols to ensure an integrated threat reduction and management program. Our approach to terrorism preparedness may offer a model for others to consider. We also welcome feedback and suggestions for improvement.

Terrorism preparedness is a quickly evolving work in progress, and will continue to change as new information, science, and technology become available. Kaiser Permanente stands ready to collaborate with colleagues in government at the federal, state, and local levels, as well as with our counterparts in the health care industry, to help our nation prepare the best solution for the worst of times.

Introduction

Kaiser Permanente is the world's largest private health care system, with nearly 8.4 million members, more than 128,000 employees and 11,000 physicians. Kaiser Permanente is both a health plan and a provider of care. Our system includes 30 medical centers, 423 medical office buildings, warehouses, laboratories, data centers, call centers, and administrative offices. We provide health care services in nine states (California, Colorado, Georgia, Hawaii, Maryland, Ohio, Oregon, Virginia, Washington) and the District of Columbia. In a single year, Kaiser Permanente clinicians oversee nearly 31 million medical office visits and more than 1.2 million in-patient hospital days; conduct 405,000 inpatient and outpatient surgeries; fill nearly 53 million prescriptions; and deliver 87,000 babies.

The scope of our responsibility is huge: in the San Francisco Bay Area, for example, nearly one out of every three persons is a Kaiser Permanente member. The numbers of people who entrust their health care to Kaiser Permanente make it especially important for our organization to be an active participant in terrorism preparedness efforts. Our defined population, range of in-house services, broad experience in medical research, contacts with medical suppliers, and expertise in health care continuity planning provide us with the interest and ability to partner with government agencies and others in the health care industry. Our goal is to work closely with these partners to help prevent, prepare for, and respond to medical emergencies resulting from terrorist attacks.

The tragedies of September 11, 2001 and its aftermath expanded the concept of disaster preparedness at Kaiser Permanente. Three examples of incidents our organization faced soon after September 11 offer glimpses of the challenges yet to be fully addressed in terrorism preparedness:

September 2001: Immediately following the September 11 attacks on the World Trade Center and the Pentagon, all air traffic was embargoed in the United States, leaving Kaiser Permanente's Hawaii Region in geographic isolation and posing patient transportation issues and supply chain issues. The Region quickly developed an innovative continuity of operations plan that called for the use of barge transportation in the event the air embargo continued.

October 2001: The September 11 attacks spurred Kaiser Permanente infectious disease specialists to refresh their knowledge about biological agents that could be used for bioterrorism. They consulted textbooks and the U.S. Centers for Disease Control and Prevention (CDC) Web site for information on anthrax, botulism, smallpox, and tularemia. The literature was sparse. Yet within weeks, Kaiser Permanente physicians were facing actual cases of anthrax, following the October 15 discovery of an anthrax-

laden letter in Senator Tom Daschle's office. Directives from state public health agencies on recognizing and reporting anthrax were disseminated in our medical centers. Kaiser Permanente's clinical experts then synthesized the multiple directions from the CDC and various state public health agencies into a single protocol, which was disseminated on the afternoon of October 17. The protocol was updated 17 times as new information became available. The guidelines were passed from infectious disease specialists to the internists, family practitioners, advice nurses and other clinicians on the front lines. CAT scans of the chest and three antibiotics were found to slow the progression of inhalational anthrax, and as a result the survival rate was far higher than expected. In the critical early stages of diagnosis, however, we received incorrect information from a state health department about the contamination of specific U.S. Postal Service sites and a lack of clinical protocols (see Appendix C).¹

October 2001: During the same time period as the anthrax cases on the East Coast, a California postal facility employee presented at a Kaiser Permanente Emergency Department, saying she feared she had been exposed to anthrax at her postal facility in a neighboring county. The employee said her supervisor at the postal facility instructed her to "go to the Emergency Department." It was a Saturday afternoon. Kaiser Permanente's director of health care continuity was contacted, and he attempted to determine whether anthrax had been detected at the postal facility. He began what ended up being a chain of multiple telephone calls. Each of the agencies contacted referred the call to another agency (two county Public Health Departments, the city Fire Department, U.S. Postal Service, and FBI); however, no one agency could provide definitive information and guidance regarding the incident. It took until the following Wednesday evening to learn that equipment from the postal facility had tested negative for anthrax, and thus, the patient was likely not exposed. In the meantime, the postal employee was processed through decontamination procedures, and was instructed to immediately return to the Emergency Department if she experienced any flu-like symptoms. Fortunately, the patient did not need to return to the Emergency Department. This incident illustrates how important it is to have a single point of contact for incident reporting, as well as a well-planned mechanism for information dissemination to help providers address the concerns and anxiety of those with potential exposure, and to appropriately allocate resources to ensure access for actual victims.

These incidents offer evidence that first responders have been – and will continue to be – faced with new challenges as we enter an era in which acts of terrorism and bioterrorism are very real threats to our safety and security.

In a recent report on terrorism preparedness, California's Little Hoover Commission wrote, "If we learn one lesson from [the September 11 tragedies and aftermath], it should be that local communities and state agencies need to dedicate some of their best minds to continuously improving our collective ability to respond to these increasingly diverse dangers."²

As a health care industry leader, Kaiser Permanente is devoting great effort to ensuring our ability to provide health care services under all conditions. As a community benefit organization, we also view our role as helping to prepare the communities we serve to respond effectively in medical emergency and crisis situations. This white paper identifies barriers to success in terrorism preparedness, offers recommended strategies, and proposes specific ways in which our organization can contribute to terrorism preparedness. This paper also describes how Kaiser Permanente has organized internally to expand our terrorism preparedness efforts. We hope this paper sparks a continuing dialog regarding how government agencies and the health care industry can work together for the benefit of all.

Barriers to Success and Recommendations

As we at Kaiser Permanente have implemented our own terrorism preparedness planning, we also have identified issues that require government and industry cooperation. Without the collaboration of government and the health care industry to develop solutions, the ultimate success of all terrorism preparedness efforts is in jeopardy. For many of the following identified barriers, we are recommending specific solutions; in other cases, we are suggesting ways in which our organization is positioned to contribute to a solution.

Barrier: Lack of coordinated advance planning before an event occurs.

To effectively respond to a terrorist event, public and private entities need ongoing multi-disciplinary public health/terrorism/disaster preparedness planning. Many communities lack a pre-established community health care model for responding to an infectious disease or terrorist incident that exceeds a single hospital's capacity for response. This barrier is the result of lack of planning resources and lack of coordination between public and private agencies or organizations.

Recommendations:

- Appropriate governmental and public health agencies should establish processes with hospitals and health care providers for planning, consultation, and coordination on appropriate stockpiles and sources of supplies, vaccines, and antibiotics.
- Hospitals and health care providers should share best practices in emergency preparedness. One example is sharing facilities planning expertise to help mitigate future acts of terrorism (e.g., decontamination facilities, isolation, ventilation, security precautions, etc.).

- Terrorism preparedness, including bioterrorism preparedness, should be integrated into ongoing community emergency/disaster planning.
- Government and the health care industry should determine the level of resources necessary to conduct reliable threat assessment evaluations to reduce risks through targeted and collaborative mitigation activities.

What Kaiser Permanente Can Contribute:

- Kaiser Permanente can share its expertise in facilities planning, clinical protocols, education, and communications with other hospitals and medical office providers.
- Kaiser Permanente will be an active participant in any community advance planning effort.
- In a joint effort with the American Public Health Association and the California Department of Health Services, we sponsored a September 2002 conference to increase business leaders' awareness of new terrorist threats.
- Kaiser Permanente will work in collaboration with others in the health industry to secure government funding for these critical public health planning efforts.

Barrier: Lack of mechanisms for incident reporting and communication.

Today, there is no designated single point of contact for incident reporting. A variety of first responders may receive reports of unusual incidents, but no single agency has been designated as the coordinating agency. This may result in delays leading to loss of life. In addition, most, if not all, communities lack effective, community-wide syndromic surveillance systems, databases to track and report emerging symptoms.

Recommendations:

- One governmental single point of contact for incident reporting should be designated, and this designation should be widely communicated to potential first responders. This point of contact could provide quick assessment, coordination, and alerts to other key agencies.
- Public health agencies should be provided with the resources to develop effective community-wide syndromic surveillance systems.

What Kaiser Permanente Can Contribute:

- Kaiser Permanente already is pilot testing a syndromic surveillance system in one California county, working with the local public health department and local hospitals.

Barrier: No clear process for information dissemination.

The California anthrax scare incident described in the introduction section of this paper illustrates that no clear process currently exists for proactively disseminating information, or at least designating points of contact for information about potential or real threats.

Recommendations:

- Federal, state, and local agencies should develop a streamlined process to convey information about potential/current threats and emergency events, both within layers of government, and to the health care industry and other first responders.
- Intelligence agencies, public health agencies, and the health care industry should develop linkages, so that health care first responders can successfully prepare for potential threats, and respond effectively if they occur.

What Kaiser Permanente Can Contribute:

- Kaiser Permanente's public affairs and communications staff is dispersed throughout our organization, but are linked by telephone, wireless communication, and e-mail. In an emergency situation, we are able to use our public affairs professionals to communicate broadly with employees, physicians, members, and the media. We are willing to join with public agencies to explore ways in which we could get information out to target audiences most effectively.
- Our information technology systems may provide an avenue to contact Kaiser Permanente members who may have been exposed to a biological agent in a specific worksite or geographic area. In the Washington, D.C. anthrax attacks, for example, Kaiser Permanente was able to identify and communicate with members who worked at the Brentwood postal facility by using its electronic medical record system to find all members who had given the Brentwood facility's telephone exchange as their work phone number.
- Kaiser Permanente's public Web site, www.kp.org, continues to feature bioterrorism information, as well as information on dealing with stress and uncertainty. Our Web site also includes links to other Web sites with medical and health information (see Appendix B).

Barrier: Confusion over jurisdictional, regulatory, and governmental responsibilities.

The complex nature of terrorist incidents will necessarily involve multiple federal, state, local, and non-governmental agencies. But overlapping authority can cause delays and confusion.

Recommendations:

- Starting with the Office of Homeland Security, governmental and regulatory agencies should establish and communicate clear lines of authority for all events, from criminal activities to public health incidents.

- Governmental and public health agencies should establish a single point of contact for hospital/health care responders, both for policy and preparedness issues, and for emergency events.
- Public and private entities should work together to improve policy and emergency coordination among federal/state, state/local, local/health care providers and hospitals. Examples include defining lead agencies for each potential disaster, establishing a chain of custody for evidence collection, and providing guidelines for federal assistance.

What Kaiser Permanente Can Contribute:

- Our National Emergency Operations Center (EOC) network can serve as a single portal for information within Kaiser Permanente. We successfully used this network to distribute the U.S. Centers for Disease Control and Prevention (CDC) recommendations in October 2001, for the immediate and mass distribution of the Advanced MMWR (Morbidity and Mortality Weekly Report), and other appropriate response information throughout the anthrax crisis.

Barrier: Obstacles to filling human resource needs.

September 11 and its aftermath highlighted critical human resource limitations. Many states currently lack an expedited process for obtaining emergency licenses for out-of-state clinical professionals to perform both emergency and non-emergency “backfill” services. For example, Kaiser Permanente needs the ability to obtain California licenses for out-of-state clinical professionals to assist in a California disaster, and the ability to obtain out-of-state licenses for California clinicians dispatched to assist in disaster situations in other states. (The State of Maryland was able to provide licensing for out-of-state Kaiser Permanente physicians on an emergency basis during the anthrax attacks.)

Recommendation:

- States should adopt an emergency procedure for licensing out-of-state health care workers during disaster/terrorist situations requiring a significant medical response.

What Kaiser Permanente Can Contribute:

- Kaiser Permanente’s Legal Affairs and Government Relations specialists are working collaboratively with trade associations, regulatory, and legislative bodies to encourage development of such processes.

Barrier: Lack of clinical protocols and medical information.

The anthrax bioterrorism attacks provided health care responders with a real life example of the need for established clinical protocols – and the ability to revise and refine those protocols as circumstances and knowledge evolve. Beyond the need for protocols, medical knowledge must advance quickly to develop preventive vaccines and other

treatments that will be effective to protect the American public from bioterrorist threats and incidents.

Recommendations:

- The U.S. Centers for Disease Control and Prevention (CDC), working collaboratively with health care organizations and experts, should develop clinical protocols for multiple potential disaster scenarios, including bioterrorism, chemical, nuclear, and radiologic incidents. These recommendations must be widely disseminated and widely accepted by medical experts.
- The federal government and the pharmaceutical industry should make it a high priority to encourage the development of effective vaccines and pharmaceuticals to protect the public against bioterrorism and other terrorist incidents.

What Kaiser Permanente Can Contribute:

- Kaiser Permanente is using its clinical expertise, and consulting with outside experts, to develop bioterrorism and terrorism clinical protocols for use in our organization. We are making these available to the CDC, public health agencies, and others in the health care industry.
- We are collaborating with other experts to share clinical information and practices. For example, health care professionals from Kaiser Permanente, Inova Fairfax Hospital, and the CDC co-authored an article about evolving treatments for inhalational anthrax, published in the *Journal of the American Medical Association*.³
- Kaiser Permanente's Vaccine Study Center in Oakland, Calif. is one of four sites in the U.S. participating in a study that will test the effectiveness of two versions of the smallpox vaccine. One version is a diluted version of the current smallpox vaccine. The other is derived from an almost 50-year-old store of vaccine recently discovered in a freezer owned by vaccine manufacturer Aventis Pasteur.
- Kaiser Permanente has research centers in California, Oregon, Hawaii, Georgia, Colorado, Maryland, and Ohio. Results of research conducted by Kaiser Permanente physicians and investigators have been published in widely read, peer-reviewed medical journals. Kaiser Permanente's ability to monitor the health of our defined population, supported by information technology, is one reason why many government agencies collaborate with Kaiser Permanente on medical research projects. Our research centers could contribute to advancing medical knowledge that might result in protection from bioterrorist attacks.

Barrier: Lack of Coordinated Training Programs.

To prepare for terrorist attacks, ongoing and standardized training is needed for first responders, health care workers in general, and the public at large. Currently, little coordination exists among federal, state, county and city agencies, or among hospitals and providers, to develop consistent approaches to training.

Recommendation:

- Government agencies and the health care industry should jointly develop core elements of training for various responders and the general population.

What Kaiser Permanente Can Contribute:

- Kaiser Permanente's health educators and trainers are developing training materials for Kaiser Permanente personnel and members. Our organization will share these materials with other health care industry, public health, and governmental agencies.
- Kaiser Permanente could convene forums to exchange best practices and training curricula.

Overcoming these barriers will require the collaboration and coordination of government at all levels and the health care industry to develop a comprehensive, sustainable, disaster readiness process to meet the post-September 11 reality of terrorist and bioterrorist attacks.

Kaiser Permanente's Terrorism Preparedness Efforts

Following the September 11 tragedies, the concept of disaster readiness at Kaiser Permanente changed forever. Now, our focus not only includes earthquakes, fires and floods, but also biological, chemical and radiological threats. In the last year, we have reorganized and enhanced our capabilities to counter a variety of terrorist attacks. This reflects our commitment to serving our members and the needs of our communities under any conditions. We believe our approach to terrorism preparedness, outlined below, may offer a model for others to consider. We also welcome feedback and suggestions for improvement.

Threat Assessment

Kaiser Permanente's threat assessment and response effort is being coordinated through a new office of Health Care Continuity Management. This office is overseeing the implementation of Business Continuity Management, a formal process used by organizations to identify and develop plans to protect critical business processes, and Threat Assessment Management, which includes all emergency preparedness functions including terrorism preparedness (see Appendix A).^{4 5}

Working under the auspices of an Executive Oversight Group of key organizational leaders who provide strategic direction, Kaiser Permanente's Threat Assessment

Management Team is the core group planning for the response to major health emergencies. This team provides around-the-clock coverage for analyzing any disaster-related incidents from within or external to Kaiser Permanente. The team also communicates with appropriate experts within Kaiser Permanente and ensures that timely follow-up actions are taken. It acquires any available intelligence data regarding threats and risks on an ongoing basis, and refers that information to the appropriate work groups or to Emergency Operations Centers (EOC) based in each of Kaiser Permanente's Regions and medical centers. The Threat Assessment Management Team also serves as the immediate action arm of Kaiser Permanente's National EOCs, which coordinates a Programwide response among its regional and local counterparts.

The Threat Assessment Management Team performs the following functions:

- Status Overview – Documenting the status of Kaiser Permanente's emergency preparedness capabilities on an ongoing basis.
- Risk Assessment – Conducting assessments of potential emergency risks, including analysis of likely probability, Kaiser Permanente's current ability to deal with the emergency, what the organization must do to become better prepared, and cost estimates associated with various preparedness options.
- Emergency Preparedness Plans – Developing and maintaining specific plans, training programs, and exercise approaches to deal with various types of emergencies, with the goal of providing patient care and protecting the public and Kaiser Permanente staff during a crisis.
- Surveillance Systems – Investigating syndromic surveillance systems and identifying obstacles to successful tracking and reporting of patient symptoms.

Work Groups

Supporting the Threat Assessment Management Team are seven, discipline-specific work groups whose combined efforts are resulting in an integrated threat reduction and management program. The work groups are organized around clinical, facilities, people, supply chain, public policy, community linkages, and communications/education issues and activities.

The Clinical Work Group is the principal authoritative medical resource to ensure Kaiser Permanente's readiness to conduct clinical assessments, triage and treat victims of terrorist actions and/or natural disasters while protecting the safety of our workers and patients. It develops clinical protocols to address threats, and establishes methods to respond quickly to clinical alerts. A sample of the group's activities includes:

- Updating Kaiser Permanente national threat response algorithms as necessary.
- Developing decision algorithms to address multiple simultaneous threats (e.g., populations presenting with infectious as well as chemical exposures).
- Assessment of plans for securing lab resources needed for diagnosis, documentation and reporting, including capabilities of in-house, contracted, community, and public health labs.

- Developing plans to receive and respond to CDC alerts and other critical public health communications, with backup systems in case primary avenues are not available for these alerts.
- Using priority threat scenarios developed by external agencies (e.g., CDC) and consultants, identify issues related to staffing and skill mix.
- Serving as Kaiser Permanente internal experts with regard to patient management during disasters (e.g., quarantining, cohorting).

The Clinical Work Group's core membership is an infectious disease physician, an emergency medicine physician, an infection control leader, and the Threat Assessment Team Manager. An extended team includes a clinical laboratory and pathology physician, a pharmacist, a nursing leader, an outpatient medical office nursing leader, an occupational health physician, and a representative from Kaiser Permanente's National Facilities Services. Additional specialists are brought in on an as-needed basis.

The Facilities Work Group evaluates design standards for hospital and medical office buildings, and identifies appropriate changes to reduce risks associated with terrorist threats. It assesses operations issues related to physical structures, and issues design standards, templates, and operational guidelines. A sample of this work group's activities includes:

- Assessment of facilities' ability to withstand effects of weapons of mass destruction (fallout, etc.), and developing criteria for evacuation and relocation to another facility.
- Determining backup utility systems (e.g., electrical power) and security (including cyber/computer security) plans.
- Preparing for mutual aid with community resources.
- Preparing for mass triage systems, contamination incidents, logistics (such as pre-positioned food and water).

The Facilities Work Group membership includes representatives from Kaiser Permanente National Facilities Services, Kaiser Permanente National Environmental, Health & Safety, facility and support services managers, Kaiser Permanente National Security, Kaiser Permanente Information Technology, and an Emergency Medicine physician.

The People Work Group develops programs, resources, and systems to care for Kaiser Permanente clinicians and staff before, during, and after an event, enabling them to care for victims while protecting their own health and well-being. A sample of activities includes:

- Forming a national Kaiser Permanente network of Critical Incident Response Teams by sponsoring Critical Incident Response Team training for Kaiser Permanente Regions outside California.
- Working with internal and external experts to develop educational programs on the psychosocial impacts of major terrorist events.

- Developing tools posted on our Disaster Preparedness Web site for managers to assist them in emergencies, for example, Emergency Childcare Recommendations, the Manager's Disaster Preparedness Checklist, and advice from peer managers.
- Formulating a sample personnel policy that addresses staffing and recall to work decisions that Regions can tailor to local needs.

The People Work Group's membership spans Employee Health, Occupational Health, Employee and Physician Assistance, Human Resources, Health Education, and a labor representative.

The Supply Chain Work Group works to ensure that an uninterrupted supply of medical equipment, pharmaceuticals, services, and supplies are always available. It develops systems and protocols related to supply chain activities, and revises or renegotiates contracts to include specific language regarding the responsibilities of suppliers in emergency situations. A sample of activities includes:

- Evaluation of preparedness for specific threats, including assessment of supplies needed in such circumstances.
- Developing an inventory strategy linking Kaiser Permanente, distributors, manufacturers, federal and state resources.

The Supply Chain Work Group membership includes representatives from Kaiser Permanente's Materials Management, Pharmacy, E-Procurement, Operations Support, and others.

The Public Policy Work Group joins with other organizations to promote active analysis of public and private health system gaps. It supports the development of public policy strategies, methods, and activities to strengthen identified system weaknesses. A sample of this work group's activities includes:

- Analysis of public policy relating to delivery system issues, insurance issues, the role of public health systems and private health systems.
- Monitoring the U.S. Centers for Disease Control and Prevention (CDC) Model State Emergency Health Powers Act, along with state and federal legislation, and coordinating Kaiser Permanente's response to proposed legislation.
- Coordinating public policy development and legislative positions with various stakeholders including the U.S. Department of Health and Human Services, public health trade associations, health plan trade associations, hospital trade associations, national law enforcement, U.S. Congress and state legislatures.

The Public Policy Work Group membership includes representatives from Kaiser Permanente's Government Affairs, Health Policy Institute, finance and legal areas, with other experts on an as-needed basis.

The Community Linkages Work Group is establishing systems to manage Kaiser Permanente's contact with external agencies, associations, and civil authorities during

significant emergencies. The work group also ensures that Kaiser Permanente experts can communicate with and receive information from key organizations. It is creating and maintaining an emergency contact list of external representatives for night/weekend communications, if needed. A sample of this group's activities includes:

- Ensuring primary and alternate contacts (names and phone numbers) for external agencies.
- For each Kaiser Permanente Region and Service Area, preparing a template of issues and a checklist of local agencies and planning organizations with which Kaiser Permanente emergency preparedness leads should coordinate.
- Developing a system of coordination with Regional government, regulatory, and interagency relations between state health and emergency agencies, law enforcement, and elected officials.
- Coordination with professional societies and trade associations.

The Community Linkages Work Group includes representatives from Kaiser Permanente's National Community Benefit Program, Strategy Management, and Government and Community Affairs managers.

The Communications and Education Work Group provides strategic communication plans and vehicles to the Threat Assessment Team for Regional and Programwide disaster readiness planning. It ensures that internal and external communication channels, roles, and expectations are established and maintained. The work group also designs and disseminates disaster readiness education and training resources for Kaiser Permanente managers, employees, and physicians. A sample of activities includes:

- Development of effective communications and education/training plans to integrate with operational and scenario planning developed by the other work groups.
- Creating a central Web site library for ensuring access to emergency preparedness and management tools throughout the organization.
- Developing pre-planned communications materials and messages for specific crises. These materials will take into account multiple internal and external audiences, including members, purchasers, employees, physicians and other health professionals, and the media.
- Assisting in the development, revisions, and dissemination of critical clinical information that is created as an incident unfolds.
- In collaboration with the People Work Group, preparing trusted and credible Kaiser Permanente spokespeople to relay messages both internally to staff and externally to members and the public, regarding the nature of the disaster and Kaiser Permanente's response. The spokespeople would reinforce protocols and best practices for disaster response, and would identify resources for assistance.

The Communications and Education Work Group membership includes representatives from Kaiser Permanente's Public Affairs and Communications, Media and Issues Management, Health Education, Marketing and Member Communications, Health Education, Employee Training, Physician Education, and online communications areas.

Conclusion

Given the acute, local impact of all disasters, state and local levels of government have primary responsibility for funding, preparing, and operating the emergency services that would respond in the event of a terrorist attack. However, the *National Strategy for Homeland Security* observes that “a major act of biological terrorism would almost certainly overwhelm existing state, local, and privately owned health care capabilities.” As a result, the report concludes that “the Department of Homeland Security will consolidate federal response plans and build a national system for incident management. The Department would aim to ensure that leaders at all levels of government have complete incident awareness and can communicate with and command all appropriate response personnel. Our federal, state, and local governments would ensure that all response personnel and organizations – including the law enforcement, military, emergency response, health care, public works, and environmental communities – are properly equipped, trained, and exercised to respond to all terrorist threats and attacks in the United States.”⁶

This is a tall order. Unless federal, state, and local government agencies and the private sector health care industry work together to eliminate barriers to success, this vision may not translate to reality. The *National Strategy for Homeland Security* notes that the private sector is the nation’s principal provider of goods and services and owner of 85 percent of the U.S. infrastructure. It describes the private sector as “a key homeland security partner Its creative genius will develop the information systems, vaccines, detection devices, and other technologies and innovations that will secure our homeland.”

It’s this partnership that Kaiser Permanente seeks to advance. Terrorism preparedness is a quickly evolving work in progress, and will continue to change as new information, science, and technology become available. Working together, we have a tremendous opportunity to learn as we go. Kaiser Permanente stands ready to collaborate with colleagues in government at the federal, state, and local levels, as well as with our counterparts in the health care industry, to help our nation prepare the best solution for the worst of times.

¹ Long, Adrian E., MD, "Crisis and Recovery: Lessons in Readiness, On Bioterrorism's Front Lines," *Healthplan Magazine*, American Association of Health Plans, www.aahp.org, accessed Aug. 16, 2002.

² State of California Little Hoover Commission, *Be Prepared: Getting Ready for New and Uncertain Dangers*, January 2002.

³ Mayer, Thom, MD, and Bersoff-Matcha, Susan, MD, et. al., "Clinical Presentation of Inhalational Anthrax Following Bioterrorism Exposure," *Journal of the American Medical Association*, Nov. 28, 2001, Vol. 286, No 20.

⁴ Skivington, Skip, MBA, "Creating a Healthy Business Continuity Plan," *Contingency Planning & Management*, April 2002, Vol. VII, No. 3.

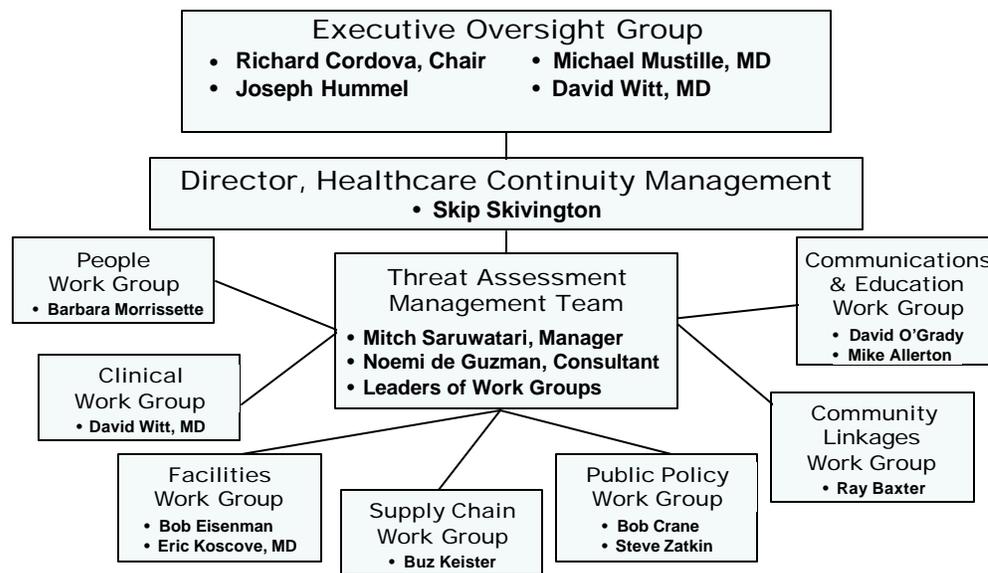
⁵ Rosenbaum, Sara, JD; Skivington, Skip, MBA; Praeger, Sandra, "Public Health Emergencies and the Public Health/Managed Care Challenge," presented at The Public's Health and the Law in the 21st Century, co-sponsored by the American Society of Law, Medicine & Ethics, and the U.S. Centers for Disease Control and Prevention, June 17-19, 2002, Atlanta, GA.

⁶ *The National Strategy for Homeland Security*, White House Office of Homeland Security, www.whitehouse.gov/homeland/book/index.html, accessed July 16, 2002.

Appendix A

Kaiser Permanente Threat Assessment
Management/Functional Chart

Threat Assessment Structure



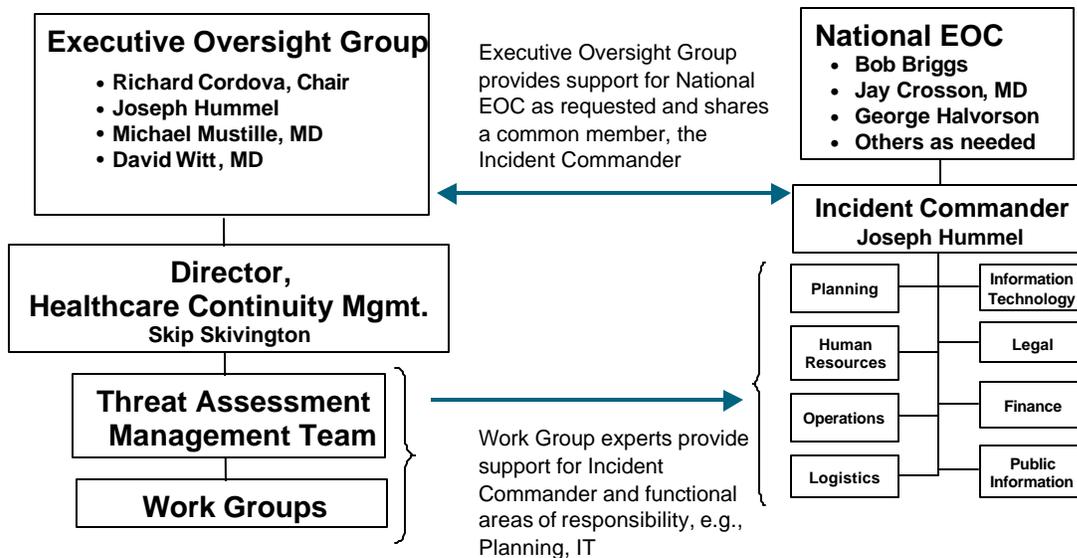
Work Groups

- Initially assess gaps, determine actions to become and remain ready to respond
- Work with and through other Work Groups
- Ongoing status to be determined by events
- Membership to include key experts and functional leaders

Threat Assessment and the National Emergency Operations Center

Planning

Responding



Appendix B

Frequently Asked Questions
About Bioterrorism, Anthrax and Smallpox
Available at www.kp.org

Bioterrorism:

Frequently Asked Questions and Answers

Q: How can I tell if a bioterrorist attack has occurred in my community?

The public health authorities would probably be notified immediately and you would hear of it via the media. Pay particular attention to when and where the attack occurred to determine if you were in the vicinity.

Q: What should I do if I suspect I've been exposed to anthrax?

You must report suspected exposure to anthrax or other bioterrorism agents to local public health and police departments. Phone numbers are available in your local phone book or by calling directory assistance.

You should seek care for any reason you would normally seek care. If you have additional questions, please call your local Kaiser Permanente medical facility or advice call center.

If you suspect that an envelope or package may contain anthrax, do not touch it, smell it, or bring it to our facilities. Please call your local police department.

Additional preventive measures:

- Do not shake or empty the contents of any suspicious envelope or package.
- Carefully place a suspicious envelope or package in a plastic bag or other type of container to keep its contents from leaking, or cover the item completely (with clothing, paper, a trash can, etc.) and keep it covered.
- Leave the room and close the door, or section off the area to keep others away.
- Wash exposed skin with soap and water.
- If you're at work, notify security. They should be able to determine the proper public health/safety
- Authorities to alert. If you're at home, contact your local public health and police departments.

Q: Should my physician prescribe preventive antibiotics against anthrax, plague, smallpox, or other diseases that might be spread by bioterrorists?

Because there is no one antibiotic effective against all potential bioterrorist diseases, the Centers for Disease Control and Prevention (CDC) does not recommend prescribing preventive antibiotics for anthrax, plague, or other bioterrorist diseases without a known exposure. Using unneeded antibiotics, or ones prescribed for another purpose, can produce harmful side effects and may contribute to the development of antibiotic-resistant organisms.

Q: Can I get vaccinated against anthrax, plague, smallpox, or other diseases that might be spread by bioterrorists?

No. The government has a supply of vaccines, which will be released if needed, but they are not available otherwise. In addition, the anthrax vaccine has potentially serious side effects and it is not universally believed to be effective in preventing inhalation anthrax (the more serious form of the disease).

Q: What is Kaiser Permanente doing to prepare for attacks by bioterrorists?

Since 1999, Kaiser Permanente has had a Bioterrorism Response Plan in place and has been working closely with local public health authorities to prepare for a bioterrorism event. We use the following precautions to prepare for a widespread attack:

- Train front-line physicians on important things to watch for
- Collaborate with public health officials and other government agencies to identify problems quickly and coordinate an emergency response
- Annually review and update our emergency response plan

Q: Where can I go for more information?

If you have additional questions or concerns, please speak with your health care practitioner. You can also [click here](#) to learn more about anthrax. [Click here](#) to get detailed information about smallpox.

Anthrax:

Frequently Asked Questions and Answers

This information is current as of 01/11/2002. Some items may need updating due to current events.

Q: What is anthrax?

Anthrax is an illness caused by spore-forming bacteria called *Bacillus anthracis*, which are found naturally in the soil. Anthrax most commonly occurs in hoofed animals, but it can also infect humans. When you come into contact with these bacteria, you have been “exposed.” But you only become “infected” if the bacteria enter your body. Once inside, the bacteria release poisons.

Q: How soon after I become infected with anthrax will I start to see symptoms?

Although symptoms of the disease vary depending on how you got it, you will usually see signs of the disease within seven days after infection.

Q: What are the different kinds of anthrax and what symptoms should I look for?

There are three kinds of anthrax. They can all be treated with antibiotics.

Cutaneous (skin) anthrax is the least serious form. You can get it if the bacteria enters your body through cuts or skin abrasions. The first symptom is a small, painless sore that turns into a blister. One or two days later, the blister develops a black scab in the center.

Gastrointestinal anthrax is more serious, but it is also the least common form of the illness. You can catch it by eating something that contains the bacteria, such as undercooked meat from an infected animal. The initial symptoms are nausea, loss of appetite, and fever, followed by severe abdominal pain.

Inhalation anthrax, the most serious type of anthrax, is caught by breathing in the bacteria. The initial symptoms are similar to those of a cold or flu. If it's diagnosed early, inhalation anthrax can be treated successfully with antibiotics. If it isn't diagnosed early, and more serious symptoms develop, inhalation anthrax usually results in death. You can only get inhalation anthrax by breathing airborne spores, and studies show that it takes several thousand spores to cause an infection.

Q: What specific symptoms should I watch for?

Look for the following symptoms:

- Fever (a temperature of 100 degrees or higher)
- Flu-like symptoms (such as cough, fatigue, and muscle aches), and nausea, vomiting, or diarrhea
- A sore, especially on your face, arms, or hands

Q: Are anthrax symptoms the same in children as in adults?

Anthrax symptoms in children aged two months or older are similar to those in adults. The illness affects children and adults in nearly the same way, although children may be more likely to suffer side effects from some of the antibiotics used to prevent or treat the disease.

Q: Can I catch anthrax from other people?

No, you cannot catch anthrax from someone else. Even if you become sick with anthrax, you cannot pass it on to your friends or family. Also, even if the bacteria that causes anthrax were in your workplace it is highly unlikely that you would carry it home to your family on your clothes or hair.

Q: How can I tell the difference between anthrax and the flu?

Many of the symptoms of anthrax are the same as those of the flu. If you think you might have been exposed to anthrax, you should report it to your local public health and police departments. Phone numbers are available in your local phone book or by calling directory assistance.

You should seek care for any reason you would normally seek care. If you have additional questions, please call your local Kaiser Permanente medical facility or advice call center.

If you suspect that a substance may contain anthrax, do not touch it, smell it, or bring it to any of our facilities. Call your local police department.

Q: Can I catch anthrax from the mail?

Letters containing anthrax bacteria have been received by mail in several areas of the United States. In some cases, anthrax exposures occurred, and people were infected. To prevent exposure and infection, you should learn how to recognize a suspicious package or envelope and take appropriate steps to protect yourself and others.

Q: What should I do if I get a letter or package containing powder?

Take these precautions if you receive a suspicious package or envelope:

- Do not shake or empty the contents.
- Do not carry the package or envelope, show it to others, or allow others to examine it.
- Put the package or envelope down on a stable surface. Do not sniff, touch, taste, or look closely at it or at any contents that may have spilled.
- Alert others about the suspicious package or envelope. Leave the room, close any doors, and section off the area to keep others away. If possible, shut off the ventilation system.
- Wash your hands with soap and water to prevent spreading bacteria to your face or skin. Instruct others who may have been in contact with the package to wash their hands, and let them know that you will be notifying a supervisor or public health authority.
- If you're at work, notify your supervisor, a security officer, or a police officer. If you're at home, contact your local public health and police departments.
- Try to create a list of people who were in the room when the suspicious letter or package was identified, and a list of people who may have touched the package or letter. Give these lists to the local police and public health authorities.

Q: If I've been exposed to anthrax, will I definitely get it?

No. Taking antibiotics can prevent infection.

Q: How is anthrax treated?

Early antibiotic treatment is essential. Your physician can prescribe the appropriate antibiotics if you are diagnosed with anthrax. As with any medication, you should follow your physician's instructions on how to take the antibiotic.

Q: What kinds of antibiotics are used to treat anthrax?

We usually treat anthrax with penicillin, doxycycline, and fluoroquinolones.

Q: Cipro is the antibiotic that I've heard is being used to treat anthrax. What is it?

Cipro is the more common name for Ciprofloxacin, which is one of many antibiotics that kill anthrax bacteria. Because of the potential for side effects, you should only take Cipro under the strict supervision of your physician.

Q: What if I develop side effects from the antibiotic?

If you develop side effects, call your personal physician or local Kaiser Permanente medical facility immediately. Depending on the type of side effects, you may be able to continue taking the medication, or you may need an alternative antibiotic.

Q: Should I buy and store antibiotics just to be safe?

No. Your physician will prescribe antibiotics only if you have been exposed to anthrax. Taking antibiotics if they aren't needed can be harmful to you and can contribute to the development of bacteria that are resistant to treatment. You should not be concerned about the supply of antibiotics: the U.S. government stockpiles antibiotics and can ship them to wherever they are needed.

Q: Should I be vaccinated against anthrax?

There is a vaccine to protect against the disease, but it is not available to the general public. If necessary, the vaccine would become available under the direction of the public health authorities.

Q: Should I worry about anthrax?

Education is your best protection against unnecessary fear. Learn about the signs and symptoms, and be aware if anthrax has been detected near your home or workplace. If you think a letter or package looks suspicious, follow the steps outlined previously. If you hear about anthrax near your home or workplace, or if you think you have been exposed to anthrax, contact your local public health office and police department. Phone numbers are available in your local phone book or by calling directory assistance.

Q: What is Kaiser Permanente doing to prepare for potential anthrax attacks?

Since 1999, we have had a Bioterrorism Response Plan in place and have been working closely with local public health authorities to prepare for a bioterrorism event. Please click here for more information.

Q: What else can I do to stay healthy, especially during flu season?

Several thousand people die each year from the flu. To stay healthy, flu shots are the best way to prevent influenza and its complications. All people aged 65 and older should get a flu vaccination. Health care workers and people under 65 who are at risk for flu-related complications should also be vaccinated.

Smallpox:

Frequently Asked Questions and Answers

This information is current as of 01/11/2002. Some items may need updating due to current events.

Q: What is smallpox?

Smallpox is an illness caused by the variola virus. Initial symptoms include high fever, fatigue, headaches, and backaches. A rash, usually on the face, arms, and legs, follows in two or three days. The rash starts with flat red lesions or blisters. The lesions become pus-filled, and by early in the second week, they begin to crust, then scab. The scabs fall off after about three to four weeks.

Q: If I'm exposed to smallpox, when will I start to see symptoms?

If you become infected with the smallpox virus, symptoms will begin to appear in about 7 to 17 days.

Q: Can I catch smallpox from other people?

Yes. In most cases, smallpox is spread by infected saliva droplets through face-to-face contact. People with smallpox are most infectious during the first week of illness because that is when the largest amount of the virus is present in saliva. However, until all the scabs have fallen off, there is still some risk of catching smallpox from face-to-face contact.

You can also catch smallpox from the clothing or bed linens of a person who has smallpox. If you are caring for someone who has smallpox, be sure to wash all bedding and clothing with very hot water and bleach. Use bleach and quaternary ammonia to clean surfaces such as tables or counters that might have the smallpox virus on them.

Q: How is smallpox treated?

There is no proven treatment for smallpox. If you have smallpox, you can take medications for fever and pain. Your doctor can also prescribe drugs to prevent other kinds of infections. Researchers are currently looking for other ways to treat this disease.

Q: If I get smallpox, will I die?

While most people with smallpox get better, up to 30 percent die from the illness.

Q: Is there a vaccine against smallpox?

The United States currently has an emergency supply of smallpox vaccine that is safely stored for use in case of an outbreak. If there is a smallpox outbreak, the Centers for Disease Control and Prevention(CDC) will determine the plan for quickly vaccinating anyone who has been exposed to or potentially infected with the smallpox virus. In addition, the U.S. government is working to develop a new smallpox vaccine.

Q: Should I get a smallpox vaccination just in case I need it?

Because no one has gotten smallpox anywhere in the world since 1978, vaccinations are not given anymore and there is no need to be vaccinated against the disease at this time. That's why the vaccine is not available to health care providers or the public. The vaccine can also have severe side effects, so the CDC will decide when and who should be vaccinated.

Q: Will getting the vaccination after a smallpox attack protect me?

Yes, but you must receive the vaccination within four days after you have come into contact with the smallpox virus to prevent illness or lessen the effects of the disease.

Q: I had a smallpox vaccine when I was a child. Am I still protected?

Routine vaccinations against smallpox ended in 1972. Public health experts don't know if people vaccinated before then are still protected from getting the disease. Most medical authorities agree that the vaccination protects you from smallpox for about three to five years. That means that even if you were vaccinated as a child, you probably aren't protected from getting smallpox if it becomes a threat.

Q: What should I do if I think I have smallpox or think that the smallpox virus has been released in my area?

If you think you have smallpox or that the virus has been released in your area, call your local health department right away. The local health department will call the state health department, the FBI, the CDC, and local law enforcement officials. You should seek care for any reason you would normally seek care. If you have additional questions, call your local Kaiser Permanente medical facility or advice call center.

Q: Is there an immediate smallpox threat?

At this time we are not expecting a smallpox attack. But it is important to be well-informed and prepared in case of a smallpox outbreak.

Q. What is Kaiser Permanente doing to prepare for potential smallpox threats from bioterrorists?

Since 1999, we have had a Bioterrorism Response Plan in place and have been working closely with local public health authorities to prepare for a bioterrorism event. Please [click here](#) for more information.

Appendix C

Testimony From Susan Bersoff-Matcha, MD,
Infectious Disease Specialist for Kaiser Permanente
in the Mid-Atlantic States,
Before the House Committee on Veterans' Affairs

**Testimony before the
House Committee on Veteran's Affairs
November 14, 2001
Susan Bersoff-Matcha, MD
Kaiser Permanente**

Good morning. Mr. Chairman, Members of the Subcommittee, I am grateful for the opportunity to share my experience as an infectious disease specialist in treating two of the patients who contracted inhalation anthrax. My name is Dr. Susan Matcha. I am a physician with the Mid-Atlantic Permanente Medical Group and one of more than 11,000 Permanente physicians nationwide who provide care to more than eight million Kaiser Permanente members in eight states, including Maryland and Virginia, plus the District of Columbia.

In my testimony today, I would like to talk about two areas: my experience treating patients with inhalation anthrax and Kaiser Permanente's response to the anthrax crisis.

As a Permanente physician, I practice as part of a team of infectious disease specialists, alongside numerous other physicians with virtually every specialty and subspecialty represented. Our physicians are used to working together, and we know how to mobilize ourselves as different needs arise. The integrated care we provide to Kaiser Permanente members provides us with broad support and resources. In this instance, this has meant rapid consultation among specialists, the ability to develop and disseminate practice guidelines that effectively communicate our state of knowledge, and coordinated collaboration with the Centers for Disease Control and other public health authorities.

Immediately after the tragedies of September 11, the threat of bioterrorism suddenly became real. The seven infectious disease physicians in my department at Kaiser Permanente began reviewing the state of our knowledge about different biological agents. We consulted textbooks, the medical literature, and the CDC website to increase our understanding of anthrax as well as other potential agents including botulism, smallpox, and tularemia.

Kaiser Permanente already had developed clinical practice guidelines for bioterrorism as part of our emergency preparations for Y2K. Our infection control committee, led by one of my infectious disease colleagues, updated them soon after September 11.

While we hope our work has contributed to the public health, my principal responsibility is caring for patients. I would like to share with you a brief chronology of the care provided to the two patients I have personally treated. To protect their privacy, I'll call them Patient #1 and Patient #2.

Patient #1 came to the Kaiser Permanente Woodbridge Medical Center on Friday, October 19. He had been ill for three days with fever, malaise, muscle aches, and sweats. At that time the Brentwood postal facility was not known to be an exposure site. But the internist who saw the patient was concerned about the severity of the patient's symptoms.

Since the patient acknowledged he had never felt that sick before and that he suspected he had been exposed to anthrax – even though a call to the public health department again confirmed that Brentwood was not a known site – he sent the patient to Fairfax Hospital.

The emergency room physician at Fairfax drew blood for routine tests as well as cultures, and also ordered a chest x-ray which showed some extra shadows in the middle of the chest. Because of these shadows, a CAT scan of the chest was performed. The findings were thought to be consistent with anthrax, and the patient was started on IV Cipro.

Shortly after midnight Saturday morning, I was called about the patient. When I arrived at the hospital, the CDC and health department had already been notified. Within 11 hours, the blood cultures were growing an organism consistent with anthrax. The blood was sent to the CDC and the Virginia Department of Health for confirmatory testing. During this time, I was in constant contact with the CDC. We discussed adding additional antibiotics to the Cipro, which at the time was the only FDA-approved antibiotic for treating anthrax. The CDC made some treatment suggestions based on theoretical evidence and what is known about the behavior of similar organisms. Although I received input from the CDC based on laboratory research, no one had experience treating human anthrax patients.

Ultimately, as the treating physician, I was responsible for writing the orders and caring for the patient. I ordered rifampin because it works well fighting many gram-positive organisms and has the ability to penetrate white blood cells to kill organisms that have already been engulfed. I also added clindamycin because it has been shown to interfere with toxin production in other bacteria.

With respect to patient #2, he called our Kaiser Permanente medical advice line on Saturday, October 20. The advice nurse was concerned about his symptoms, headache and fever, and she referred him to a physician in our Fall Church Medical Center urgent care department that afternoon.

The physician there was concerned that Patient #2 might have meningitis and sent him to Fairfax Hospital for a spinal tap. The Fairfax Hospital emergency room physician called me with the results and mentioned in passing that the patient was a postal worker. I asked him to find out exactly where the patient worked. When I heard Brentwood, where I knew Patient #1 worked, I remembered that anthrax could cause meningitis and asked him if he had ordered a chest x-ray. He had not. I advised the emergency room physician to obtain blood cultures, and then immediately give the patient a dose of IV Cipro. Once this had been done, the patient was to have a chest x-ray.

The chest x-ray was difficult to interpret, so a CAT scan was done. The results of the CAT scan were similar to the first patient's. Both showed enlarged lymph nodes in the chest as well as pleural effusions: puddles of fluid in the space around the lungs. Fifteen hours later, Patient #2's blood cultures also returned with a gram-positive bacteria, consistent with anthrax. At that point, I added rifampin and clindamycin to his regimen as well.

In addition to the numerous calls I made on that weekend to the CDC and health departments that weekend, I also called the chief of our medical group's infectious disease department, Dr. Miriam Cameron, to let her know about the two patients. Together with Dr. Adrian Long, president of the Mid-Atlantic Permanente Medical Group, and Marilyn Kawamura, president of Kaiser Foundation Health Plan of the Mid-Atlantic States, she helped organized a conference call so our organization could respond effectively to this anthrax crisis.

The elements of our response included several key steps: establishing an emergency operations center, updating our clinical guidelines, reaching out to our patients, expanding our capabilities, and helping in the community.

Emergency Operations Center

The genesis of our emergency operations in this crisis was Y2K. Kaiser Permanente developed an emergency plan in preparation for what we thought might happen as the year 2000 began. This plan was valuable to us when bioterrorism hit. The manual that was created for Y2K included operating procedures for staffing (medical and administrative), equipment (including a generator with the capacity to run for 2 weeks), communications (internal and external), and a hotline.

Kaiser Permanente's response to bioterrorism was centralized in our Emergency Operations Center (EOC), which became fully operational on October 23. Early activation of our EOC was vital to our successful and orderly response to this crisis. The EOC provided various avenues of communication: email, voice mail, and phone conferencing that connected the entire Kaiser Permanente region. We held conference calls several times a day to discuss what we had learned since the last call, the progress of each patient, the volume of patient calls coming in to our advice nurses, and the volume of appointments at our medical centers.

As the number of designated exposure sites and possible exposure sites increased, there was great demand placed on our infectious disease team. We set up a hotline in our EOC for non-urgent questions, which was covered 9-5 by a nurse who has the latest clinical practice guidelines and access to an infectious disease physician. Emergency calls went directly to one of us for live consultations.

Clinical Practice Guidelines

Clinical practice guidelines describe and instruct the triage and treatment of patients by physicians and advice nurses. The list of designated exposure sites was updated as we received news from public health departments. Different guidelines were detailed for stable and unstable patients, symptomatic and asymptomatic patients. The guidelines listed all phone numbers for public health departments. Any and all other relevant information was included in each update. New information was clearly identifiable. For

the benefit of all our physicians as well as the advice nurses, we addressed what symptoms to look for and what questions to ask the patients, such as asking where they worked.

The process we had in place for the use of clinical protocols served us well. The information cascaded down from infectious disease specialists to everyone on the front lines: internists, family practitioners, advice nurses. Our organization's ability and dedication to update and distribute them frequently enhanced the effectiveness of clinical protocols.

Since Kaiser Permanente is used to communicating with multiple jurisdictions and dealing with different sets of rules, it was natural for us to coordinate and communicate with the CDC, the departments of public health, and different political entities. We shared information about our patients, and we shared our clinical protocols. Johns Hopkins University Hospital, Inova Fairfax Hospital, and others used our protocols as their guide for patient diagnosis and treatment.

Reaching out to patients

Kaiser Permanente has more than 530,000 patients in Maryland, Virginia, and DC. Each of these patients has a medical record number and an electronic medical record. Through our multiple information management systems, we can track data to help us respond to issues. For example, as soon as we understood that postal workers at Brentwood could be at risk, we identified all our members who work at the Brentwood post office by the telephone exchange they provided to us for their work number.

A cadre of nurses volunteered to contact all 237 Brentwood employees. Nurses asked our members if they had gone to DC General for testing, if they had received their medicine, were they taking it, and how did they feel. People who were not taking the medication, for a variety of reasons including suspected pregnancy, were encouraged to take it medication as appropriate or to come in and see a doctor. Some people were directed to an emergency room. Appointments were offered to anyone with any symptoms.

We can use this system to communicate with all our members or a subset of them. For example, we could call all our members to remind them about flu vaccines – which is something we are currently doing, or for mass immunizations.

We were able to instantly create a special category in the medical record for this current bioterrorism crisis to identify, collect, and sort anthrax-related information. And we were able to generate hospital admissions and emergency room visit reports that were valuable to us and to the DC Department of Health staff, who said it was the best information they received from any of the area health care providers.

The importance of physicians using the electronic medical record system was reinforced. Most infectious disease physicians were spending time in the hospitals. To make it easier for us, we could dictate our notes and have them entered into the electronic medical records to keep them up to date.

Expanding our capabilities

Because the anthrax crisis was so fluid, with different parts of the Washington area being affected at different times, we had to be fluid in our staffing at our medical centers and urgent care centers, as well as in area hospitals. Because of the integrated nature of our organization, we were flexible enough to shift people quickly throughout our region and other parts of Kaiser Permanente.

Because we are part of the larger Kaiser Permanente organization, we were able to draw on other resources. Physicians from other regions came to our assistance. We had infectious disease physicians and primary care physicians providing us support in a variety of ways. Some of them saw our HIV patients, others took routine office appointments, supported our advice nurses, and helped in the EOC.

The out-of-state doctors had to be licensed and credentialed very quickly to work with patients. The State of Maryland was extremely cooperative. Our credentialing department processed the paperwork swiftly after the State approved the physicians.

In part because of our resources as a large organization, we were able to obtain large quantities of medication and vaccines. On Friday, October 26, a decision was made to get enough doses of Cipro in case we had to treat all our patients who are postal employees and their families. We needed 10,000 doses, and we had them by Monday, October 29. We also obtained 100,000 doses of flu vaccine. And we already have a plan in place to distribute medication to a large population and will be testing it with the flu vaccine this year.

As the anxiety increased in the general population, our medical centers organized and announced group appointments. These were helpful to our members with justifiable concerns about anthrax exposure, as well as those who were concerned but had no significant risk factors. Patients from the group meetings who wanted to be seen individually were seen individually.

Pitney Bowes management called us for help in the early stages of this crisis. They have many employees who are contracted to the postal service, and some work in the Brentwood facility. These individuals had concerns about anthrax exposure, but could not be seen at DC General because they were not postal employees. We agreed to test 300 workers, some of whom are members of Kaiser Permanente, some who are not. While we were doing blood testing and x-rays, we found a lung mass in one person, hypertension in another, and other conditions of concern unrelated to anthrax. All of these patients were referred to their physicians for follow-up.

To help deal with the emotional trauma our patients were experiencing, we arranged for our mental health providers to be available at all our urgent care centers. In fact, we have had group meetings available almost every evening since the events of September 11.

Helping in the community

Kaiser Permanente has a long history of community service. It is an integral part of our mission. Prompted by an offer made by one of our leaders, 13 of our Mid-Atlantic Permanente Medical Group physicians volunteered to help the DC Department of Health by providing weekend treatment, evaluation, and counseling at DC General, giving DC health department physicians a needed break.

Conclusion

The events of weekend of October 20th were stressful and humbling. My infectious disease colleagues and I were confronted with a disease that few other clinicians in the world had seen. We felt a responsibility not only to our patients, but also to the broader medical community. As a result, we have taken numerous steps to share our clinical experience. We have posted our guidelines on the Kaiser Permanente website where it is available to physicians across the nation and the general public. We have responded to numerous inquiries from clinicians across the country. Finally, we have written an article for the Journal of the American Medical Association on what we learned about diagnosing anthrax, and we are currently working on another article to discuss what we learned about the course of hospital treatment. When and if other physicians are faced with anthrax, they will know what we did and what we learned.

Again, thank you for inviting me to speak to the Subcommittee. I would be pleased to respond to any questions you might have.