In a new book on emergency preparedness, RAND’s Center for Domestic and International Health Security analyzes the risks versus the benefits of widespread smallpox vaccinations. Vaccination can be an effective counter to smallpox bioterrorism. But the vaccine itself can be dangerous to some people: Serious complications and even death can result. RAND researchers evaluated six plausible smallpox attack scenarios, ranging from a simple hoax to a massive, coordinated attack.

For most scenarios, vaccinating health care workers will save lives. Health care workers face greater risk of exposure; if enough health care workers were incapacitated by a smallpox attack, it could threaten our ability to keep hospitals open. But the study estimates that vaccinating 60% of the general public would result in about 500 deaths from a negative reaction to the vaccine itself—a price too high to pay unless a massive attack is likely. If the probability of a massive attack increases in the future, the RAND analyses will help policymakers decide when the benefits of general vaccination outweigh the risks.

**Government-Subsidized Terrorism Insurance Could Equalize Protection**

Soaring prices for terrorism coverage after 9/11 have led to widespread calls for government intervention. Other countries facing terrorist threats (such as Israel and Great Britain) already provide terrorism coverage. In the U.S., many potential terrorism targets have obtained private insurance, even at today’s high price tags.

A recent RAND study points out that self-protection by one entity might actually increase the risk to others. Terrorists wanting to wreak maximum havoc might deliberately choose the most vulnerable targets. Such an attack could have nationwide financial repercussions.

The government is already taking military and law enforcement action to minimize the risk of terrorism. Other RAND researchers found that the government could protect American targets even more effectively by subsidizing terrorism coverage up to a reasonable amount.

**FORTHCOMING PROJECT**

**Are Local Health Responders Better Prepared?**

After 9/11: Are Local Health Responders Better Prepared?

A RAND survey conducted just prior to 9/11 found that many local public health agencies and hospitals, both public and private, had no plans in place for handling a chemical or biological attack. RAND researchers found that only about one-third of public health agencies and hospitals had comprehensive response plans for a bioterrorist event.

To date, most efforts to improve local preparedness have focused on capacity building: improving surveillance, stockpiling pharmaceuticals, and improving lab capacities. While these efforts are important, RAND’s researchers suggest that a truly effective response to terrorism will require significantly improved planning and coordination.

A forthcoming RAND report will examine how planning and preparedness activities have changed since 9/11.

READ MORE:
- [Are Local Health Responders Prepared for Bioterrorism?](#)
- [Measuring and Evaluating Local Preparedness](#)

**Health Care Could Be the New Marshall Plan**

In a new book on emergency preparedness, RAND researchers highlight the destabilizing effect of widespread health problems. For instance, the prevalence of HIV/AIDS in South Africa (4.7 million South Africans are HIV positive) has resulted in slower economic growth, declining productivity, and rising crime rates. Pakistan is another country in need of massive health aid, including prenatal care, nutrition programs, HIV intervention and education, and limb prostheses (particularly in areas where the Taliban inflicted widespread injuries on the population). Millions of individual tragedies could easily lead to social unrest and political instability—the breeding grounds for terrorism.

The authors argue that the U.S., with its enormous health care resources, has a historically unmatched opportunity to alleviate suffering and improve health care around the world. Promoting health may do more than help others—it may be a critical aspect of national security.

**Smallpox Vaccinations for Health Care Workers Will Probably Save Lives**

A new study conducted by RAND’s Center for Domestic and International Health Security analyzes the risks versus the benefits of widespread smallpox vaccinations. Vaccination can be an effective counter to smallpox bioterrorism. But the vaccine itself can be dangerous to some people: Serious complications and even death can result. RAND researchers evaluated six plausible smallpox attack scenarios, ranging from a simple hoax to a massive, coordinated attack.

For most scenarios, vaccinating health care workers will save lives. Health care workers face greater risk of exposure; if enough health care workers were incapacitated by a smallpox attack, it could threaten our ability to keep hospitals open. But the study estimates that vaccinating 60% of the general public would result in about 500 deaths from a negative reaction to the vaccine itself—a price too high to pay unless a massive attack is likely. If the probability of a massive attack increases in the future, the RAND analyses will help policymakers decide when the benefits of general vaccination outweigh the risks.

READ MORE:
- [RAND Press Release: Smallpox Vaccinations](#)
- [Full text of study](#)
- [Q&A on Smallpox Vaccinations](#)

**Are Local Health Responders Ready for Biological and Chemical Terrorism?**

Soaring prices for terrorism coverage after 9/11 have led to widespread calls for government intervention. Other countries facing terrorist threats (such as Israel and Great Britain) already provide terrorism coverage. In the U.S., many potential terrorism targets have obtained private insurance, even at today’s high price tags.

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The government is already taking military and law enforcement action to minimize the risk of terrorism. RAND’s research suggests that the government could protect American targets even more effectively by subsidizing terrorism coverage up to a reasonable amount.

READ MORE:
- [Summary of this study](#)

**READ MORE:**
- [Tapping the Power of Health in Foreign Policy](#)
- [Make World Health the New Marshall Plan](#)