

Lesson of Iraq's Mass Murder

By Christine Gosden and Mike Amitay

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The Sept. 11 attacks and anthrax aftermath have forced Americans to confront the terrible reality that we are vulnerable to chemical, biological or radiological weapons. Enormous resources are being allocated to help law enforcement, health officials and local communities devise effective responses to unprecedented threats. Public health vigilance and responses to threats from infectious agents have advanced, but chemical agents, radiological weapons and biological toxins pose different threats and can cause severe long-term effects, such as cancer. We should be better prepared for threats these weapons pose, especially since we are not the first people terrorized by such weapons of mass destruction.

President Bush and his advisers repeatedly remind us that Saddam Hussein used chemical weapons against the people of Iraq. Indeed, from April 1987 to October 1988 the Iraqi regime attacked 4 million people in Iraqi Kurdistan (northern Iraq) by using combinations of nerve agents, mustard gas and possibly biological and radiological weapons on scores of Kurdish towns and villages. The attacks aimed to subjugate and punish those who supported Iran during the Iran-Iraq war. In the most publicized attack, the town of Halabja was bombarded with mustard gas and nerve agents, killing 5,000 people immediately and severely injuring tens of thousands of others.

Today, 14 years later, the attacks continue to exert long-term effects through cancers, congenital malformations and infant deaths. Yet not only have the United States and the international community failed to address the humanitarian and environmental consequences of the attacks, they have also failed to consider the implications for their own domestic preparedness.

Four fundamental questions should have been answered following these tragic exposures to weapons of mass destruction (WMD): What agents were used? What are the most effective means of monitoring environment and people to remove threats from persistent weapons agents? What are the most effective means of researching immediate and long-term effects of different agents? What are the most effective means of developing effective therapies for victims? Only when these questions are answered can we respond effectively to WMD threats.

A first priority is to establish which agents may have been used in Iraq. Although this seems a fundamental step, in practice it is more complex. The keystone of the U.N. system is respect for the sovereignty of governments, and international agencies charged with testing must await requests from governments to investigate possible WMD use. Since the government of Iraq has not requested an investigation into attacks in Iraqi Kurdistan, there is only fragmentary forensic evidence, rather than systematic test results.

A small U.N. team examined sites along the Iran-Iraq border, and Physicians for Human Rights gathered samples from a single site near the Turkish border. These confirmed the presence of mustard gas and the nerve agents sarin and tabun. But for Halabja, the site of one of the world's largest WMD attacks, there has still been no systematic testing.

A second step is to monitor attack sites and surrounding areas to determine persistence of any weapons agents in the environment. All told, some 250,000 civilians may have been directly exposed during attacks and many more affected by contamination of the environment and water table and by lasting effects on animals and food chains. Many others may have been exposed at varying levels during the Iran-Iraq war and in punitive attacks against dissident groups in southern Iraq.

The attacks occurred as the Iraqi military was testing, weaponizing and stockpiling a wide range of agents, including anthrax, smallpox, plague, botulinum toxin, aflatoxin, mustard gas and nerve gases such as sarin and VX. Some chemical weapons and biological toxins, such as nuclear and radiological weapons, damage the human genome, causing cancers in those exposed and birth defects and cancers in children born years later. Severe health problems reported throughout Iraq and in neighboring countries suggest environmental damage may be widespread. Yet there is an appalling lack of detailed scientific information on damage to people and their environment.

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A third priority is to identify the short- and long-term medical problems associated with each weapon. The terrible long-term effects of mustard gas have been observed in World War I victims, World War II poison gas factory workers, U.S. military test chamber volunteers and Iranian soldiers exposed during the Iran-Iraq war. Long-term effects include laryngeal, pharyngeal and lung cancers, corneal burns causing blindness, severe skin burns predisposing to skin cancer, neurological and psychiatric disorders, infertility and birth defects. A significant proportion of survivors of nerve gas (sarin) attacks on the Tokyo subway suffer from long-term neurological disorders. Immediate deaths from WMD are the tip of a lethal iceberg; the 90 percent or so who survive, face slow and lingering deaths or severe disability.

The fourth lesson, vital to overcoming threats, is to develop effective methods for treating victims. Civilian populations, as the Kurds exemplify, are extremely vulnerable to WMD attacks, lacking gas masks, other protections and effective methods for personal and environmental decontamination. The major contrast between Iraqi Kurds and potential survivors of WMD in the United States is that in Kurdistan, the survivors are currently dying from cancers without benefit of chemotherapy, radiotherapy or pain relief in terminal stages, whereas in the United States such treatment would likely be available. Yet even if treatment responses were available, it is unclear whether conventional approaches are effective in exposed populations, as few evidence-based studies have been conducted among civilians exposed to WMD.

Before the answers to these important questions can be found, adequate medical and humanitarian assistance must be extended to survivors, without which it would be unethical to conduct studies, environmental assessments and medical research necessary to learn from this tragedy. The experience of people in Iraqi Kurdistan is a terrifying example of what happens when a civilian population is unprepared for a chemical weapons attack. The people there continue to live in terror of Iraqi unconventional weapons attacks, just as they live with death and disease resulting from their previous exposures. Now is the time not simply to cite them as victims but also to question the wisdom of our own shortsightedness and lack of compassion, because to aid their survival is to benefit all those at risk from threats of WMD.

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