

Public Health Meets the Rainbow Family

When 20,000 people descend on a rural community for a gathering, how should public health respond?

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A mass gathering could be a recipe for disaster, but public officials' responses to the Rainbow Family Gatherings in Montana and Idaho demonstrate that collaboration between local public health, Forest Service, and law enforcement—and sensitivity to a community's culture—can go a long way toward preventing major public health disasters.

The Rainbow Family of Living Light is a self-described non-organization of nonmembers descended from the counterculture movement of the late 1960s. Each year the Rainbow Family stages a three-week "Gathering for World Peace and Healing of the Earth" in a U.S. national forest during June and July. As many as 27,000 people from the U.S. and many foreign countries have attended these events.

For the past two years the gathering has been held at sites in the Pacific Northwest. In 2000, 23,000 people gathered in the Beaverhead-Deer Lodge National Forest in southwest Montana; and in 2001 more than 19,000 gathered in the Boise National Forest in central Idaho. Both sites were located in primitive areas, 50-100 miles from the nearest incorporated town and took more than a forty-five-minute brisk walk over rough terrain to reach.

Challenges to public health delivery

Mass backcountry gatherings, such as the Rainbow Family's, present unique challenges to public health workers. Dealing with nontraditional clients with their leaderless structure and resistance to or suspicion of government surveillance is compounded by the sites' isolation. The absence of municipal sewage treatment facilities, inadequate sanitation services, the lack of a potable public water supply system, and overcrowding increase the potential for food and water contamination. Food- and waterborne disease outbreaks have occurred in such settings in the past. For example, during the 1987 Rainbow Family gathering in North Carolina, more than half of the 12,700 persons who attended the event became ill with multidrug-resistant shigella. To make matters worse, the

microorganism spread to numerous states after the event as ill participants returned home.

Every year, the U.S. Forest Service mobilizes a National Incident Management Team to manage response activities at these gatherings. Since many different government agencies have management responsibilities, a formal, unified incident command (UIC) system is set up. Typically included in the UIC are representatives from local, district, and state health departments, emergency medical services agencies, and local hospitals. Law enforcement usually assumes the lead role in the command structure. This type of command structure, although fairly routine for law enforcement professionals, is an unusual and interesting experience for public health workers. Both Montana and Idaho governors issued local emergency declarations for the involved counties to make financial resources available if needed.

In Montana, county and state workers, including a public health nurse and a sanitarian, attended the gathering. One public health worker remained at the gathering full-time, and two or three others hiked in every other day to perform inspections and provide health information. In Idaho, public health workers from the regional health districts handled the response.

Health and safety concerns

Health and safety concerns included fire danger, food and water safety, basic sanitation, and health care delivery for accidents, injuries, and other health needs.

Forest fire dangers. The drought in Montana and Idaho, coupled with the many campfires used for cooking and heating, caused fire danger to be very high. Since access to both gathering sites were via sole, single-lane dirt roads, evacuation was not a viable option in the event of a forest fire. So, the U.S. Forest Service used satellite imagery to identify "safety zones" in both areas for attendees to escape to if needed. Public health workers notified participants of the locations of these safety zones and provided information about the command's fire plan.

Injuries and accidents. Radio and cellular phone transmissions from the sites were unreli-

able. Law enforcement, using helicopters, identified landing sites in case air evacuations of individuals were needed. At the gathering in Idaho, eight air evacuations were made for incidents involving heart attacks, obstetrics, seizures, falls, and vehicle accidents. Public health workers helped keep the landing sites free of tents and other Rainbow structures during the gathering.

Food safety. More than fifty communal kitchens staffed by volunteers served food to the attendees. Refrigerators were not available, and food temperatures were not measured. Kitchens were neither licensed nor inspected, but public health workers made courtesy “walk-throughs” to encourage safe food handling and sanitation practices.

Drinking water safety. Drinking water came through plastic tubing from streambeds upstream. In Montana, environmental health workers complied with Rainbow Family requests for bacteriologic analysis of water samples. Laboratory tests showed high levels of fecal coliforms, as expected in untreated surface water running through land used for cattle grazing. Public health workers helped inform the gathered people of the need to boil, treat, or filter water before drinking.

Sanitation. Toilet facilities consisted primarily of open-pit privies and shallow trench latrines. In general, they were strategically placed away from surface waters and kitchens. Most latrines had instructions, such as using lime or ash to cover waste, written on cardboard or paper and tacked to nearby trees. Several of the more central latrines also had hand-washing stations consisting of gallon bottles containing diluted-bleach water.

Responding to health needs and tracking disease

A health center, the Center for Alternative Lifestyles Medicine (CALM), provided free health care, healing workshops, counseling, and an herbal apothecary for people at the gathering. The center was staffed 24 hours a day by volunteers with varying healthcare skill levels. CALM did not require certification of its providers. Herbalists, faith healers, and acupuncturists predominated, with few traditional health care providers. Health care providers at CALM cared for about 25 ambulatory patients a day with complaints covering gastrointestinal illnesses, soft tissue and musculoskeletal injuries, drug overdoses, and sunburn.

In Montana, the public health workers at the county, regional, and state level who visited

regularly, established good rapport with staff volunteers at CALM. Rainbow Family members appreciated information from authorities on ways to stay safe and healthy while at the gathering. On several occasions, CALM invited local public health workers to present talks on topics of concern to Rainbow Family members, such as tick-borne diseases, giardia, rabies, and hantavirus. About a dozen CALM health care providers attended these in-services. They asked appropriate questions and expressed an interest in having regular sessions at future gatherings.

Health surveillance at the gatherings was uniquely challenging. Attendees used pseudonyms (Firefly, Lightwarrior, Windwalker, Tigerlily) and were mobile and transient at the gathering. The absence of phones and addresses made case contact and follow-up difficult. The CALM providers were unwilling to keep a written record of presenting complaints at the clinic, although they enthusiastically discussed with public health workers patients seen at the clinic.

When Montana public health workers visited CALM, they asked about the number of patients and spectrum of diseases encountered. They also gave CALM stool specimen collection kits so enteric disease outbreaks, such as giardiasis or shigellosis, could be rapidly identified. Specimens were processed free of charge at the state public health laboratory. Montana health officials also distributed sharps containers and biohazardous waste bags to the clinic.

The Rainbow Family gatherings in Montana and Idaho ended without a major public health disaster. The successful outcome was largely the result of participating agencies working together in a well-coordinated approach. They each recognized their role, accepted their responsibility, and respected the authority of the incident command.

The message for public health is that a successful response to mass gatherings requires workers to be open-minded, flexible, able to adapt to circumstances of the command structure, and willing to work closely together toward the good of the team. 🐾

Recommended Readings

Lee LA, Ostroff SM, McGee HB, et al: An Outbreak of Shigellosis at an Outdoor Music Festival. *Am J Epid* 1991; 133:608-15.

Wharton M, Spiegel RA, Horan JM, et al: A Large Outbreak of Antibiotic-Resistant Shigellosis at a Mass Gathering. *J Infect Dis* 1990; 162:1324-8.

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