## **ORIGINAL ARTICLES**

## ▲ Evaluation of Interdisciplinary Terrorism Preparedness Programs:

A Pilot Focus Group Study

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Many terrorism preparedness trainings occur throughout the United States, yet few qualitatively examine trainees' needs and interests, reactions to training, or suggestions for training improvement. Eleven posttraining focus groups were conducted with 31 training participants at six sites. Participants were stratified by health profession discipline, and discipline-specific moderators conducted each session to better understand and probe for feedback. One additional moderator attended all sessions to increase consistency in methods across sessions. Focus group participants assessed changes in their perceptions, knowledge, and beliefs about terrorism preparedness. Participants reported perceiving terrorism as a potential threat but less likely

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than natural disasters. All-hazards crossover training for responding to terrorism and natural disasters was requested. The training was viewed positively, including the enrollment process, training content, and reference materials. Participants reported increased confidence in abilities to recognize a terrorist event. Participants stated they would like the training repeated annually with more first responders in attendance. Participants from rural areas had unique training needs based on limited resources and multiple roles of staff. While most participants wanted a longer, multispecialty conference with in-depth, discipline-specific breakout sessions, physicians requested shorter, separate training. Multispecialty training methods were successful and appreciated. This pilot study may serve as a template for qualitative evaluation of terrorism preparedness conferences for health professionals. J Allied Health 2006; 35:189-197.

THE SEPTEMBER 11, 2001, attacks on New York City and Washington, DC, brought international attention to America's relative vulnerability to such events. Some question the future state of the public health infrastructure due to renewed attention to and concern about a terrorist attack.1 Threats of terrorist attacks on the United States in the past have been destructive to the public health infrastructure.2 During the Cold War era, the threat of a terrorist attack generated public anxiety while limiting the scope and focus of public health activities due to reduced attention and funding allocated to surveillance and other national preparedness activities. However, the September 11, 2001, attacks and subsequent anthrax outbreaks, while presenting safety challenges, have also introduced new opportunities to public health and hope for a revitalized infrastructure.3 The types of terrorist threats that have resulted in recent increases in funding for building the

TABLE 1. Health Professions Participating in Focus Groups and Their Corresponding Locations

| Professional Group             | Locations                             | No. of Focus Group<br>Participants | No. of Focus Groups |
|--------------------------------|---------------------------------------|------------------------------------|---------------------|
| Clinical laboratory scientists | Kansas City                           | 3                                  | 1                   |
| Pharmacists                    | Overland Park                         | 2                                  | 1                   |
| Emergency medical technicians  | Hays, Wichita                         | 2                                  | 2                   |
| Physicians                     | Wichita, Overland Park, Topeka        | 9                                  | 3                   |
| Registered nurses              | Hays, Kansas City, Pittsburg, Wichita | 15                                 | 4                   |
| TOTALS: 5 professional groups  | 6 locations                           | 31 participants                    | 11 focus groups     |

public health infrastructure parallel the natural public health challenges that may be faced at any time (e.g., explosions, chemical exposures, and disease outbreaks). Preparation for current terrorist threats transfers to naturally occurring public health incidents.

First responders, health care professionals, and emergency medical personnel in the United States must be prepared to respond to terrorism knowledgeably and without delay. Many have stated that the public health infrastructure of the United States is inadequately equipped to address such attacks.<sup>4,5</sup> Consequentially, education and training opportunities must be made available to health care and public health professionals and other first responders.<sup>6,7</sup> To provide needed and desired information, those providing training must understand the attitudes and beliefs of potential trainees, in addition to training needs and interests.<sup>8</sup>

## Training Purpose

The purpose of the preparedness training conferences entitled "Can It Happen in Kansas? Response to Terrorism & Emerging Infections," was to prepare a multidisciplinary health care workforce to address the medical consequences of terrorism that result from exposure to biologic, agroterrorist, chemical, nuclear, incendiary, or other weapons of mass destruction as well as public health emergencies. Training content was developed based on the results of a needs assessment conducted statewide in 2003 by the Kansas Department of Health and Environment and the University of Kansas Medical Center Continuing Education Department. The needs assessments, conducted with physicians, nurses, hospital administrators, mental health professionals, pharmacists, and many other health professionals, produced three recurring themes. Participants need to (1) understand roles and responsibilities for themselves and others in preparedness plans, (2) know how they fit within the larger plan, and (3) increase collaboration within and among disciplines.

Training was offered statewide to multidisciplinary health professionals by the University of Kansas Medical Center, and continuing education credit was awarded. Participating multidisciplinary practicing providers included physicians, nurse practitioners, nurses, pharmacists, clinical laboratory scientists, respiratory therapists, physical therapists, physician assistants, emergency medical technicians,

and others, all of whom were preregistered for the training conference. The six Kansas conferences were held in Overland Park, Topeka, Wichita, Pittsburg, Garden City, and Hays in December 2003. A total of 836 participants completed evaluations, which comprised the pool from which focus group participants were later selected.

## Study Purpose

Conference evaluation focus groups were formed to evaluate perceptions of health professional participants regarding current local issues surrounding terrorism preparedness, the training enrollment process, training content and format, and additional training needs.

### Methods

Eligibility for participation in a focus group was open to health professionals who attended the training preparedness training conferences entitled "Can It Happen in Kansas? Response to Terrorism & Emerging Infections." At the conferences, trainees were asked on a posttest if they would be interested in participating in focus groups regarding the training they had received. As a result, 314 trainees reported they would be interested and provided their names and addresses. Kansas Area Health Education Center (AHEC) staff then randomly selected and recruited focus group participants from these trainees. Recruitment was accomplished by direct mailings and telephone calls.

AHEC staff recruited five professional groups, including nurses (registered nurses and nurse practitioners comprised 60% of the total sample), emergency medical technicians (10% of sample), physicians (6% of sample), clinical laboratory scientists (4% of sample), and pharmacists (4% of sample). Although training was interdisciplinary, separate focus groups were conducted for each specialty for the purposes of discussing discipline-specific training content and ensuring interdisciplinary content met the perceived needs of each discipline.

Eleven focus groups were conducted: two with emergency medical technicians, one with clinical laboratory scientists, four with nurses, one with pharmacists, and three with physicians (Table 1). The goal was to schedule between seven and 10 participants per focus group. However, structured interviews were conducted when only one participant

could be recruited. Groups met in each of the same six locations as the original conference training sessions.

A standard script with open-ended questions was used at each focus group meeting. The script, which was developed based on findings from the results of the quantitative evaluation component of the training, consisted of six modules. The content explored in each module is shown in Table 2. General content included strengths and weaknesses of recruitment techniques, training content, and teaching methods. Retention of content and the application of core competencies addressed in the training sessions were discussed, and potential solutions to identified problems were explored.

### FOCUS GROUP PROCEDURES

The project was reviewed and approved by the Committee on the Rights of Human Subjects (the institutional review board) at the University of Kansas School of Medicine in Wichita. Written informed consent was obtained from each participant before beginning the focus group protocol. Demographic items were collected after informed consent was obtained. Demographic data included age, gender, profession, and the AHEC region in which training was received. No individual, after reading the informed consent, elected not to participate.

Focus groups and extended interviews lasted approximately 90 minutes each. Participants received an incentive payment to reimburse travel costs at the culmination of the focus groups. Interviews were conducted, transcribed, and analyzed by discipline-specific faculty from the Department of Preventive Medicine and Public Health at the University of Kansas School of Medicine in Wichita. At each session, a discipline-specific professional moderated to better understand and probe for feedback. A second professional (the same person across all sessions to increase methodological consistency) also moderated and took notes. Moderators probed for group consensus opinions and divergent opinions that would be important for programming or policy consideration.

Focus groups were audio recorded and the tapes transcribed verbatim. Content analysis was performed by members of the evaluation team. Transcripts were read and coded using an open coding process. In addition, an axial coding process was used in which codes were categorized according to their relevance to each other and assigned to groups containing common themes. Codes were analyzed in relationship to all other codes to cluster similar codes and identify common themes. Finally, each theme was examined to ascertain consistent versus divergent ideas.

### Results

### PARTICIPANT DEMOGRAPHICS

Thirty-one health professionals, representing urban and rural health care professionals in Kansas, participated in focus groups. The majority of participants were 40 yrs of age

TABLE 2. Focus Group Modules

| TABLE 2. Focus Group Modules |                                                                                                                                                                                        |  |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Module                       | Content                                                                                                                                                                                |  |
| 1                            | Purpose of focus group How terrorist threats may have affected participants' personal and work lives How a terrorist event might affect participants' communities                      |  |
| 2                            | Participants' perceptions of the strengths and weaknesses of the enrollment process for the training program                                                                           |  |
| 3                            | Participants' perceptions of the strengths and weaknesses of program content, instructors, teaching methods and materials, and location                                                |  |
| 4                            | Participants' opinions of how well they:  Retained what they learned  Believed they could perform during a terrorist event  Had used learning from the terrorism preparedness training |  |
| 5                            | How training had been disseminated at personal, professional, and local community levels                                                                                               |  |
| 6                            | Participants' suggestions about future terrorism pre-<br>paredness training conferences                                                                                                |  |

or older, reporting age categories of either "40 to 49 yrs of age" or "50 yrs of age or more." Nurses had the largest representation with 15 participants, followed by nine physicians, three clinical laboratory scientists, two pharmacists, and two emergency medical technicians (Table 1).

## CONVERGING OPINIONS

### World View/Introduction

What types of events would you see as likely to happen in or around your community/region?—Each interview began with the question, "What types of terrorist events would you see as likely to happen in or around your community/region?" In general, participants drew examples from industries within their community or region. Urban participants described population and manufacturing threats, whereas rural participants mentioned agriculturally related threats. Most participants reported believing that a terrorist event was less likely to happen in the "isolated" Midwest as compared with a larger coastal city: "I think in the Midwest we tend to be a little more isolated, truly thinking that it probably won't happen to us." Although participants considered agriculture and the beef industry as the "Midwest's Achilles' heel," participants cited other potential target areas, including aircraft facilities, nuclear warhead manufacturing facilities, and transportation hubs for interstate highways, trains, and airplanes. It was noted that many chemicals and hazards are transported through Kansas. One participant noted, "It's probably more apt to be accidental than necessarily terroristic [sic], but you always have to be concerned about some of the chemicals that are being transported." Kansas City was cited as the number one transportation contact area in the country for hazardous waste.

One nurse who lived in a rural community but worked in an urban burn center cited recent local events (methamphetamine laboratory explosions, anthrax scares, a grain elevator explosion, and a gas well explosion) to describe the types of vulnerabilities terrorists could exploit for future attacks. Other perceived threats included chemical spills, chemical releases, weapons of mass destruction, or contamination of the blood supply. Participants agreed there was a greater risk from natural disaster events, such as tornadoes or floods.

What are the big issues or challenges your profession is facing locally?—Focus group participants identified having insufficient resources to respond to a terrorist event as an important issue: "We are limited with funds, and a lot of our fires are grass fires, and so we train for those." Several concerns were expressed about a lack of readiness due to staffing shortages and budget constraints. Barriers for hiring additional personnel included the nursing shortage ("All I hear is nursing shortage, nursing shortage"), the budget justification process, and documentation requirements ("It's taken me three and a half months to fill a position"). Budget shortages constrained the purchase of more personal protective equipment for medical personnel working in high-risk areas such as emergency departments or as first responders. Participants also cited availability of facility resources as a concern.

### Enrollment

What did you think of the enrollment process? How did you become aware of the training? What led you to enroll?—All groups agreed that the AHEC and University of Kansas Medical Center continuing education recruitment and enrollment process was problem-free: "I had no problems. There were no barriers that I ran into that I remember." Most participants learned about the training program through the conference enrollment brochure that was mailed to all health professionals in Kansas: "I got a brochure in the mail, and I think a number of people at the health department got it because a number of people went. But it must have been because I had been on the list from some other training." Many participants were motivated to enroll due to personal interest, work setting, or their affiliation with disaster preparedness planning groups. Participants felt a sense of duty to be prepared for a terrorist event: "People need to care and be involved. You can't stick your head in the sand about this one." Topics listed in the brochure appeared relevant to their interest in the subject of terrorism. There was consensus that the conference brochure provided complete information to decide whether or not to attend the training session. All agreed that the conference content and continuing education were the main drawing points. One participant summed up the personal reasons for attendance as "free CME, and it was a subject I'm interested in."

Were there any barriers to enrollment?—Most participants reported minimal or no barriers to attending the terrorism training session conducted in their region. The low cost of the program was reported as beneficial: "I look for any workshop that costs less than ten dollars." All participants agreed the tuition was reasonable for an all-day conference and they would recommend it to others.

### Intervention

What did you learn from the anti-terrorism training? What was or was not helpful about the teaching methods, educational format, and techniques?—Participants reported the training content was extensive, detailed, very useful, informative, and practical. The information about emergency and clinical response was perceived as particularly good. The training "broadened horizons" and promoted a more global view of terrorism beyond the constraints of any one discipline. Specific information regarding emergency contact names, telephone numbers, and locations was perceived as important, as was becoming acquainted with content experts. One representative comment was, "The thing that was most important to me was to find out locality, numbers, and names of the people that we would be able to get in touch with in other towns."

Teaching style accommodated all types of learners; information was presented through visual, auditory, and speaking feedback venues. One participant stated, "I think his presentation style aided my learning experience because he talked to us, just relaying information." Another reported liking a speaker's style, saying, "I've always done a lot of lecture [and] audiovisual environment, and that's just my favorite."

Appreciation was expressed for the overview of emerging infections and infectious diseases that could arise from catastrophic events, such as biological and chemical warfare, dirty bombs, and radiation. The conference's discipline-specific lectures provided to all trainees (i.e., laboratory services) were not perceived as containing widely applicable information that could be used daily, but they were still considered to be useful. While contact information for various resources was also considered useful, some of the participants believed it was difficult to retain all the contact information: "I can't recite [the contact information right now, but I knew it after the program." A few participants stated they could find the right person to call if there were a terrorist event; however, as one participant stated, "I could do that, but I don't know if the phones are working, and I don't know if there's anybody to answer the phone, and that's what concerns me."

What's your opinion of the manual? How have you used it since the training?—The conference manual was cited as an excellent reference: "It was very, very explanatory, and it was

#### CLINICAL EVALUATION OF PATIENTS WITH POSSIBLE CUTAMEOUS ANTHRAX Start Here i. Obtain supporting data Does the pt have typical Gram stain and culture of skin lesion: Treat with Unroofed vesicle fluid (dry swab) progression of antimicrobial Base of ulcer (moist swab) cutaneous anthrax therapy for 60 Edges of or underneath eschar (moist swab) days and follo lesions? Blood cultures es pruritic papule is the blood anthrax Fests you might consider ulture nositive vaccination Skin (punch) biopsy protocol for If pt on antimicrobial drugs OR Vesicle/bulla gram stain and culture are negative anthrax for B. anthracis and clinical suspicion remains high Ñο Depressed ulcer exposure Serologic testing available through CDC (requires CDC Black eschar approval to obtain test) tert empiric therapy for cutaneous anthrax is the lesion Notify public health authorities Continue No culture positive OF ntimicrobia Is cutan, anthrax therapy confirmed by other as for Does patient diagnostic test OR Start empiric prophylactic therapy and anthrax vaccination cutaneous have history of Does the lesion protocol for inhalational anthrax exposure progress to an nthrax exposur (See Prophylaxis and Vaccination card) 60 days eschar? (known or Notify public health authorities suspected)? No Perform other diagnostic tests as needed

FIGURE 1. Example page from "bioterrorism reference cards." Reprinted with permission from the Institute of Biosecurity, St. Louis University School of Public Health, St. Louis, MO.

Punch biopsy should be submitted in formalin to CDC. PCR can also be done on formalin-fixed specimen

Gram stain and culture are frequently negative for B. anthracis after initiation of antimicrobials

brief enough that you could digest it." All participants commented they liked the format and content of the training manual as well as the space for participants to add their own notes during lectures. They reported taking their manuals back to their workplaces and sharing the information with those unable to attend: "I took probably ten manuals back with me. They disappeared just very fast." Additionally, participants stated they had used the manual as a reference to develop terrorism response protocols and develop a terrorism response manual.

Also available were "bioterrorism reference cards" consisting of 15 double-sided 3 × 5 cards with quick tips and flow charts (an example is shown in Figure 1). The blue cards, available from the Centers for the Study of Bioterrorism and Emerging Infections at St. Louis University, were reported as having been used extensively in the workplace after training. Comments regarding the cards included "terrific" and "reassuring." Participants reported obtaining additional copies of the training manual and bioterrorism reference cards when possible. A physician from Kansas City stated, "We've actually distributed those to all of our units. We ordered about 100 and hung them up on the wall, and they're readily accessible."

### Learning

How well do you think you can recall what you learned in the anti-terrorism training in December? If you had to respond to an event today, how do you think you would perform?—Par-

ticipants reported their content recall was limited to "the parts that I was interested in" or "stuff that's pertinent to my job." Most stated they could recall how to recognize a terrorist event or public health emergency: "What I remember from it is the things we need to look at as far as what are signs and symptoms that we're going to look for." They agreed that "a large number of people with unusual symptoms" would raise concern of a possible terrorist event, although many indicated they would rely on the manual and reference cards to remind them of content: "Like I say, I know where my book is." Moreover, as a result of the conference, most reported feeling more confident in their abilities to recognize a terrorist event (Table 3), and all participants reported they believed they would function better in a disaster.

## Local Efforts

Would you recommend the course to others? Would you be interested in another training session?—All participants indicated they would recommend the training course to others and would be interested in additional training. Several expressed interest in a terrorism preparedness "mini-series." There was general consensus that refresher training should be offered "once a year," "like we renew our CPR training." In addition, participants agreed the training would be useful to other health professionals and all first responders, including law enforcement and fire fighters: "I know our police departments would like more information."

# TABLE 3. Samples of Participants' Comments Regarding Confidence as a Result of the Training

- "I feel I can do better now than what I could before.... By participating in this lecture and learning series, I learned that there is information out there on the signs and symptoms and what you look for and what you need to do."—Emergency Medical Technician Focus Group, Wichita
- "I think certainly after the conference I feel more confident skill wise. . . . I think I'm better operationally prepared."— Emergency Medical Technician Focus Group, Wichita
- "It made me feel more comfortable because I had a lot more answers.... They can say, 'Oh, we suspect anthrax,' and I can tell them what to do.... I walked away from the conference more knowledgeable."—Physician Focus Group, Kansas City
- "I felt I learned a lot. I felt like there were directions I could take if I had questions."—Physician Focus Group, Kansas City
- "I certainly think it helped [prepare me to respond].... I think I could certainly help."—Physician Focus Group, Topeka
- "I think I would be adequate. I think I would be up to the task."—Physician Focus Group, Wichita
- "It wouldn't be 100 percent, but we're a lot farther along than we were last year at this time."—Nurse Focus Group, Wichita

Do you have any ideas for future needs for training, support, or other related activities?—Although many suggestions were offered for future training, few converging themes emerged across disciplines in response to this question. However, many participants expressed a desire to expand the conference attendees to include more first responders not directly associated with health care: "Your county commissioners and your extension offices and . . . open it up to those people who serve on the volunteer department's emergency management plan." Among those listed as potential future attendees were law enforcement, local government, fire departments, county commissioners, extension officers, jailers, and dispatchers. One participant suggesting having "more exercises [where] you have other people, like HazMat, [and] they all have to work together. You have law enforcement, you have campus police, you have the students." All converging and diverging opinions are summarized in Table 4.

### **DIVERGING OPINIONS**

### Intervention

What did you learn from the anti-terrorism training? What was or was not helpful about the teaching methods, educational format, and techniques?—While most focus group participants shared common views, a few diverging opinions were notable (Table 5). Nurses, emergency medical technicians, and clinical laboratory scientists reported the training resulted in "information overload" and that the conference needed to be extended to a two-day training or divided by

disciplines for breakout sessions. A nurse stated, "I think most of us were overwhelmed with the information that we had to digest." However, physicians reported they desired separate training: "Not a whole day... because many private physicians cannot get off for the whole day."

In addition, first responders (i.e., emergency medical technicians, emergency department nurses) suggested the training could be improved by separating training content of first responders versus acute care providers. For example, first responders suggested that breakout sessions allow for focused training by responder function. Nurse participants also indicated they believed the patient treatment focus of first responders was very different from that of acute care providers and the two disciplines should be addressed separately: "[There are] first responders working in the field, and then you've got the folks in the acute care setting taking them in. What if you had morning sessions that were specific to both of those arenas?" In contrast to the requests for separate, discipline-specific training, greater interaction among disciplines was requested. Participants stated multidisciplinary training would facilitate networking, group interaction, and planning among first responders, acute care providers, and other disciplines involved in disaster planning and response: "It was nice to meet some different people from different areas . . . just briefly talking to them about what they were doing. So it was a good way to network with other modalities and different fields."

Nurses and emergency medical technicians reported wanting "operationally focused" content and application: "How would you automatically look at [patients] and know it's radiation. . . . It could have been more patient-focused." Clinical laboratory scientists reported wanting more training on packaging of samples: "One thing that really kind of concerns me [is that] everybody has to receive this documented training to ship these things, and I thought that it was just a really quick overview." Physicians did not express an interest in application, although they volunteered to serve as a "medical militia," providing training to other physicians via grand rounds if they could be provided with CD-ROMs of the training's PowerPoint slides: "Most hospitals are like ours. They're set up with CME lecture series. So then what you have is . . . train the trainer."

## Local Efforts

Do you have any ideas for future needs for training, support, or other related activities?—Diverging views of future needs for training centered on needs specific to profession or rural versus urban location. All professional groups reported wanting future training where they could conduct drills, clarify crisis protocols by discipline, and practice crisis communication without technology ("How do we go ahead and communicate if we do lose communication?"). However, noting the importance of developing a communication network, physicians insisted that training that would generate a telephone tree would be extremely useful.

### **CONVERGING OPINIONS**

### World view/introduction

- There is a greater risk from natural disaster events than from terrorism in the Midwest.
- Transportation accidents are a concern.
- The biggest issue facing professions is insufficient resources, in terms of budget and personnel, to respond to a terrorist event.

### Enrollment

- The enrollment process was seen as problem-free.
- Motivators to enroll included continuing education credits, conference content, and low cost.
- Discipline-specific lectures provided to all trainees were not as widely applicable.
- The conference manual and reference cards were cited as excellent references that were shared in the workplace.

### Learning

- Participants relied on the manual and reference cards to remind them of content.
- Participants felt more confident in their abilities to recognize a terrorist event as a result of the training.

### Local efforts

- Participants stated they would recommend the training to others and wanted to see more first responders in attendance.
- Refresher training should be offered once a year.

#### DIVERGING OPINIONS

### Intervention

- Nurses, emergency medical technicians, and clinical laboratory scientists thought the training was overwhelming and should be extended.
- Physicians requested separate, shorter training.
- Greater interaction was requested among disciplines.
- Many disciplines requested separate, in-depth, discipline-specific breakout sessions.
- Nurses, emergency medical technicians, and clinical laboratory scientists requested more hands-on training.
- Physicians were not as interested in application but were willing to teach.
- Rural participants reported unique needs regarding:
  - —Scheduling of training so all staff can attend.
  - -Staff who fulfill multiple roles.
  - -Limited resources available for response.
  - —A need for information about the cost of decontamination supplies.
  - —A high proportion of residents in nursing homes.
  - —Challenges in eliciting community involvement due to a belief that terrorism will not happen.

Physicians also reported the need to develop tactics for increasing physician attendance, such as the inclusion of natural disaster training with bioterrorism training: "Being a busy practitioner, do I want to take the time to go to a conference on bioterrorism that . . . you know, it may happen, however, it may not happen? Do I want to take the time away from my office to do that? . . . You're not going to see that many that will come with some significant interest."

Nurses and physicians reported it would be wise for emergency preparedness planners to tap into their professional resources, such as retired nurses and physicians who would appreciate the opportunity to serve their communities in meaningful ways: "You might try to mobilize retired physicians.... Let's theoretically say that you have a bunch of guys that are immunized when the new vaccine comes out. They then would be willing to participate." Participants working with patients in an acute care setting requested greater focus in this area to learn more about the progression and curing of disease caused by terrorism agents: "The disease processes, you know, when you don't

work with it on a yearly basis, just having it refreshed in your mind. . . . I think we could use that once a year."

Focus group participants from rural sites described unique needs in training content and focus, including the scheduling of local training sessions so all staff could attend. Participants from rural communities depicted situations in which fewer resources, both people and equipment, were available to respond to emergencies, suggesting a need for "multitask" training in which an overlap in functions was emphasized: "In the small communities everybody wears three hats." Moreover, small rural communities have a large number of senior citizens, presenting special challenges in the event of an evacuation: "One thing that we thought about was . . . getting the fire department and police out to help us evacuate our people [from the long-term care facility] to another environment where they would be living." An additional shared concern expressed by rural participants was the need for information about the costs of decontamination supplies and knowledge to assess the effectiveness of their first response gear: "You don't have a lot of resources if it happened within our little community."

- "Planning for all hazards is helping us to break down some of the barriers and the territory that we all cling to . . . I think that we are learning that we are in this together."—Nurse Focus Group, Kansas City
- "You may have to make two different types of conferences, one for other healthcare workers and one for physicians only."—Physician Focus Group, Kansas City
- "The clinical lab part was so not pertinent."—Nurse Focus Group, Wichita
- "The woman who spoke on the labs. . . . People from the labs might have found it a lot more interesting."—Pharmacist Focus Group,
   Overland Park
- "The [laboratory] portion that talked about shipping and packaging the specimens and agents seemed to go really fast. . . . I thought it was a quick overview. . . . You could do two hours or more just on packaging."—Clinical Laboratory Scientist Focus Group, Kansas City
- "The nurse that did the emergency response, I think, did a good job as far as the clinical end. But I think my perspective was more on the [response] at the emergency location . . . first response."—Emergency Medical Technician Focus Group, Wichita
- "Some of my friends on the emergency side—some of the things that I really enjoyed on the nursing side it was like kind of ho-hum. . . . What if you had morning sessions that were specific to both of those arenas, and then you marry it in the afternoon?"—Nurse Focus Group, Wichita
- "There [could] be training sessions that would be more for like the individual groups . . . maybe still convene everyone so you still get that networking, but then break out."—Clinical Laboratory Scientist Focus Group, Kansas City

Finally, the majority of rural participants stated community residents do not believe a terrorism event will happen close to them, making engagement in community planning and preparedness a daunting task: "A lot of the smaller communities are having trouble getting their county commissioners to buy into the plan [that] we need to be ready for something. They don't believe that terrorism is that big a threat in rural Kansas." While local threats have served as motivators to pursue and engage in terrorism preparedness activities in larger, more urban communities ("We started [drills] 8 or 9 years ago, when motivators were things like tornados, natural disasters"), participants from smaller, rural communities expressed their citizens doubted the reality of a terrorism event.

### Conclusions

Considering the funding dedicated to emergency and terrorism preparedness, relatively few educational opportunities have been provided to health care providers. Even fewer have been evaluated, 1,9 a process that is critical to the successful development of future training opportunities. 10-12 Furthermore, qualitative methods have rarely been used to explore trainees' opinions, feedback, and additional training needs. Although not commonly used in the emergency preparedness literature, focus groups are a widely accepted research method for determining the attitudes and motivations of people. Focus groups can allow for immediate feedback and, if designed well, can result in training tailored to the targeted population. 8,13

In this study, a representative sample of the health professionals who attended the December 2003 training was recruited for focus group interviews. Focus group participants met with researchers to provide important informa-

tion about the quality of the terrorism preparedness training program presented during the 2003/2004 grant year. Additionally, participants provided information about local issues and needs surrounding terrorism preparedness.

The training described was viewed positively, from the enrollment process to the training content. The need for periodic training to increase content recall was a major convergent theme among focus group participants. While participants agreed they learned a great deal and felt more confident in their abilities to respond to a terrorist event as a result of the conference, the amount of information presented in a short period was overwhelming. One of the divergent opinions concerned how to present the information in a more comprehensible manner. Notably, physicians preferred to have shorter, two-hour "micro-sessions," whereas nurses requested the conference content be stretched into a two-day format to leave more time for questions.

Participants also reported differing preferences regarding multidisciplinary training, with physicians and pharmacists requesting separate training and other professions reporting appreciation for the collaborative gains they perceived as a result of the multidisciplinary format. Nurses, emergency medical service personnel, and clinical laboratory scientists reported that breakout sessions would be helpful in meeting their separate training needs within a multidisciplinary format. To address both the requests for separate training and for greater interaction among disciplines, it may be useful to offer training organized around joint sessions, with longer, in-depth, hands-on breakout sessions for specific disciplines. Longer conference duration to achieve this may be received well by most disciplines.

Rural needs were reported as different from urban needs. Rural participants reported needing training that acknowledges the multiple functions performed by many rural response personnel. They also need more information regarding the cost associated with implementing new ideas or adding new equipment. Rural participants need greater emphasis on the applicability of terrorism preparedness to natural disaster preparedness to help them with "selling" the ideas to small communities that do not consider a local terrorist attack to be likely.

A recurring convergent opinion among participants was that the conference manual and bioterrorism reference cards were extremely helpful. There were many reports of participants sharing the manuals with coworkers, distributing dozens of bioterrorism reference cards, and using both resources for policy development. In fact, many participants, when asked whether they felt better able to respond as a result of the training, stated they knew they could find the necessary information in the manuals or the bioterrorism reference cards. Participants requested that future manuals be spiral bound and indexed for ease of use.

Health professionals participating in "Can It Happen in Kansas? Response to Terrorism & Emerging Infections" indicated they were very satisfied with the training and benefited from it. Many convergent themes were found in the areas of potential terrorist events, perceptions of the enrollment process, content retention and use, and future conferences. Divergent opinions emerged regarding the intervention itself, due to differences among professions and between urban and rural locations. Considering the participant feedback described in this study can increase the effectiveness of future training programs in meeting participants' needs and expectations.

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