

Emergency Preparedness Among People Living Near US Army Chemical Weapons Sites After September 11, 2001

Bryan L. Williams, PhD, and Melina S. Magsumbol, MA

We examined trust in the army and perceptions of emergency preparedness among residents living near the Anniston, Ala, and Richmond, Ky, US Army chemical weapons stockpile sites shortly after September 11, 2001.

Residents (n=655) living near the 2 sites who participated in a cross-sectional population were relatively unprepared in the event of a chemical emergency. The events of September 11 gave rise to concerns regarding the security of stored chemical weapons and the sites' vulnerability to terrorist attacks. Although residents expressed trust in the army to manage chemical weapons safely, only a few expressed a desire to actively participate in site decisions.

Compliance with procedures during emergencies could be seriously limited, putting residents in these sites at higher levels of risk of exposure to chemical hazards than nonresidents. (*Am J Public Health. 2007; 97:1601–1606. doi:10.2105/AJPH.2007.111328*)

BEFORE THE EVENTS OF September 11, 2001, the threat posed by weapons of mass destruction seemed remote. With the Cold War over, nuclear, biological, and chemical weapons represented little more than environmental nuisances and unlikely public health threats. Now these weapons may represent real risks to the public at large.¹ Arguably, much of the world is ill prepared to prevent and respond to the malicious use of these weapons on civilians.^{2,3} After September 11, the US government tried to prepare its citizens for a chemical and biological terrorist event. These weapons, however, had been in our midst for decades and have posed some risk to the public well before September 11. Although this risk had been long known, almost nothing was known about the level of preparedness of residents living near such sites; 6 years after September 11, we still do not know how prepared these residents are.

We conducted our study shortly after September 11 with the specific goal of assessing knowledge and attitudes related to emergency preparedness among residents living near 2 chemical weapons stockpile sites: 1 in Anniston, Ala, and 1 in Richmond, Ky, (also known as the Blue Grass Army Depot). We wanted to identify factors that predicted residents' perceptions of the risk of chemical emergency and determine the effect of September 11 on their perception of emergency preparedness programs at the 2 sites, where

active disposal of stockpiles had yet to begin. Although dated, these findings are germane to current emergency preparedness efforts at the sites. There is no evidence in the literature of similar efforts to assess emergency preparedness among this population since our study was conducted in 2001. These findings provide baseline data for any future studies of residents living near the 2 sites.

FACTORS INFLUENCING EMERGENCY PREPAREDNESS

Perception of risk influences preparedness for hazardous events. Heightened perception of risk stems from the personal belief that a hazardous event is likely to occur, that the event will have adverse consequences, and that the event is involuntary.^{4–11} Chemical weapons possess almost all of the features that are known to amplify perception of risk. They are manmade, disabling and potentially lethal, uncontrollable once released, technologically complex, and imposed upon residents living near chemical stockpile sites.^{5,8,10} The risks posed by these agents are unpredictable and divergent. Releases of chemical agents at sites can be both acute and chronic in nature. Acute events occur swiftly, sometimes with little or no warning, resulting in severe consequences, whereas chronic events occur incrementally and less severely.^{6,11} The public is often more concerned about the

occurrence of acute events than of chronic events.^{6,11}

When a disaster occurs, the public's perception of the hazard will dictate their reaction and ultimately their safety.^{3,12,13} Childs asserts, "[I]n counter-disaster planning, it is important to understand not only why natural processes occur and how they are measured scientifically, but also how the hazards which they pose are perceived by communities. This will assist planners to understand what the likely public responses to disasters might be."^{12(p5)} Preparing the population involves getting people to understand and heed emergency warnings and adopt protective action.¹⁴ Unfortunately, individuals do not automatically comply with emergency warnings and procedures. Lindell and Perry contend that "[I]n many cases, there is substantial under response—with those advised to take action failing to do so."^{14(p148)} Hence, public knowledge of and opinions toward emergencies should be assessed before they occur so that public response can be anticipated.

Although knowledge of such things as evacuation procedures, survival skills, emergency supplies, and warning systems is essential for public preparedness,^{14,15} the populace and the public health sector are often unaware of them,^{3,16} perhaps because they do not trust the source of the preparedness information.^{17–20} Source trustworthiness is derived from the public's perceptions of an institution's

credentials, how the institution has treated the public, and the institution's past performance.^{14,21} Regardless of the level of risk involved, the public is more compliant with emergency procedures if a trusted source is advocating the behavior or protective action (e.g. stockpiling water).^{14,21} Consequently, institutional trust is an essential component of effective emergency preparedness,²² especially trust in the US Army's capability of storing and managing chemical weapons.

NATURE OF RISK AT ARMY SITES IN THE UNITED STATES

Risks of chemical weapons may be more conceivable to people living near sites. Once located in relatively rural areas, many such facilities are now encroached upon by growing communities. At least 260 000 residents live within the emergency response zones surrounding the 8 army stockpile sites in the continental United States.²³ At least 2 of these sites are located near very large population centers, including Baltimore, Md, and Salt Lake City, Utah. Local residents are understandably concerned. However unlikely a chemical emergency, risk assessments have posed credible scenarios in which people living near these sites could be exposed to and harmed by chemical agents.^{24,25}

PREPAREDNESS AT ARMY SITES IN THE UNITED STATES

Well before September 11, emergency preparedness was an issue at the chemical stockpile sites. The Final Programmatic

Environmental Impact Statement (FPEIS)²⁶ for the mandated Chemical Stockpile Disposal Program²⁷ provided the impetus for the Chemical Stockpile Emergency Preparedness Program (CSEPP).⁹ Prior to the FPEIS, "emergency planning was judged to be inadequate in the communities surrounding the storage sites"^{26(p224)}, consequently, the US Army created CSEPP in coordination with the Federal Emergency Management Agency (FEMA).^{9,26} CSEPP is involved in external and internal organizational structure, the anticipation of public response, and periodic updating and testing of formalized plans.^{28,29} Its activities include maintaining and improving public warning capabilities, training emergency managers and first responders, conducting functional exercises that improve readiness, educating the public about protective actions, ensuring that schools are airtight (to provide a safe haven for residents), evaluating emergency response options, and training health care personnel to treat victims of exposure to chemical agents.²⁶

EMERGENCY MANAGEMENT AT STOCKPILE SITES

At present, prominent positions are held by members of CSEPP within the US Army and FEMA²⁶ within the US Department of Homeland Security. CSEPP also works closely with the Oak Ridge National Laboratory in program planning. Since September 11, the bureaucracy surrounding CSEPP has grown immensely and the scope of the program appears to have widened accordingly. However, as with FEMA, CSEPP's impact

on its target population is dubious at best. It is simply unclear whether CSEPP's extensive simulations, Web resources, public outreach, and warning systems have improved emergency preparedness among the populace.

SURVEY METHODS

Sampling and Data Collection

Using random-digit dialing, we interviewed a random sample of 655 residents living within the emergency preparedness zones (i.e., within a 50-mile radius of each site's geographic midpoint) of the Anniston²⁰ and Blue Grass chemical stockpile sites during the fall of 2001. We used a modified version of the Chemical Demilitarization Stakeholder Instrument.³⁰ The original survey instrument was composed of 45 closed and open-ended items. The survey consisted of 4 intact scales, including the Army Trust Scale, Perceived Army Competence Scale,³¹ Perceived Risk of Emergency Scale, and Site Awareness Scale. Composite mean scores were used to measure respondents' "perceived risk" of a stockpile site emergency and "perceived trust" in the US Army's capacity to properly store and maintain those sites with higher scores indicating higher perceived risk and trust. The Cronbach α for these scales was 0.94, 0.83, 0.81, and 0.63, respectively. Some items concerning September 11 were added to the survey so that we could examine its impact on public perceptions relevant to CSEPP.

Our study is an offshoot of the Chemical Weapons Stockpile Community Study, which investigated public involvement among residents living in the 8 chemical weapons stockpile sites.^{30,32}

Research Variables

Research variables for the analysis included respondents' trust in the army, perceived risk of a chemical emergency, self-perceived preparedness for a chemical emergency, and the impact of September 11 on their perceptions of the stockpile sites and the sites' emergency preparedness programs.

The main predictor variables for the analysis included respondents' gender, age, education, race/ethnicity, and residential distance from the site. Data were analyzed with both descriptive and inferential test statistics. Because the criterion variables were not highly correlated, we conducted inferential analyses using univariate analysis of variance (ANOVA) rather than multivariate ANOVA. Data were compiled and analyzed with SPSS statistical software version 12.0 (SPSS Inc, Chicago, Ill).

Sample and Response Characteristics

The sample was composed mostly of women (55%). Respondents were mostly non-Hispanic Whites (91%) with a few non-Hispanic Blacks (8%). Underrepresentation of men and ethnic minority populations in phone surveys is common and frequently unavoidable.³³ About half (51%) of respondents had a high school education or the equivalent, and almost one third (29.7%) had an undergraduate college degree. Respondents were distributed fairly equally across age categories, with the largest group being those aged 40 to 49 years (24%). About 56% of respondents lived within 10 miles of the site, and 79% lived within 20 miles; only 21% lived more than 20 miles from the site.

TABLE 1—Trust in the US Army Among Residents Living Near the Anniston, Ala, and Richmond, Ky, (Blue Grass Army Depot) US Army Chemical Weapons Stockpile Sites, by Type of Army Activity: Fall 2001

Activity and Level of Residents' Trust	Anniston, No. (%)	Blue Grass, No. (%)	Total, No. (%)
Safe storage of chemical weapons			
Completely distrust	19 (5.9)	11 (3.4)	30 (4.7)
Mostly distrust	44 (13.6)	26 (8.2)	70 (10.9)
Neutral	53 (16.4)	42 (13.2)	95 (14.8)
Mostly trust	121 (37.5)	145 (45.5)	266 (41.4)
Completely trust	86 (26.6)	95 (29.8)	181 (28.2)
Safe disposal of chemical weapons			
Completely distrust	20 (6.3)	19 (6.1)	39 (6.2)
Mostly distrust	36 (11.3)	36 (11.5)	72 (11.4)
Neutral	48 (15.0)	40 (12.7)	88 (13.9)
Mostly trust	118 (37.0)	131 (41.7)	249 (39.3)
Completely trust	97 (30.4)	88 (28.0)	185 (29.2)
Quick disposal of chemical weapons			
Completely distrust	32 (10.5)	47 (15.1)	79 (12.8)
Mostly distrust	43 (14.1)	86 (27.7)	129 (20.9)
Neutral	62 (20.3)	47 (15.1)	109 (17.7)
Mostly trust	89 (29.2)	75 (24.1)	164 (26.6)
Completely trust	79 (25.9)	56 (18.0)	135 (21.9)
Compliance with government regulations that protect public			
Completely distrust	29 (8.9)	20 (6.3)	49 (7.6)
Mostly distrust	29 (8.9)	36 (11.3)	65 (10.1)
Neutral	39 (12.0)	20 (6.3)	59 (9.2)
Mostly trust	113 (34.8)	121 (38.1)	234 (36.4)
Completely trust	115 (35.4)	121 (38.1)	236 (36.7)
Keeping community well informed			
Completely distrust	38 (11.7)	32 (10.1)	70 (10.9)
Mostly distrust	52 (16.0)	59 (18.6)	111 (17.3)
Neutral	30 (9.2)	30 (9.5)	60 (9.3)
Mostly trust	124 (38.0)	116 (36.6)	240 (37.3)
Completely trust	82 (25.2)	80 (25.2)	162 (25.2)
Protection of health of community's residents			
Completely distrust	36 (11.4)	20 (6.3)	56 (8.9)
Mostly distrust	43 (13.6)	38 (12.0)	81 (12.8)
Neutral	29 (9.2)	24 (7.6)	53 (8.4)
Mostly trust	116 (36.7)	135 (42.7)	251 (39.7)
Completely trust	92 (29.1)	99 (31.3)	191 (30.2)
Honest answers to community's questions			
Completely distrust	33 (10.3)	36 (11.4)	69 (10.8)
Mostly distrust	59 (18.4)	53 (16.8)	112 (17.6)
Neutral	31 (9.7)	27 (8.5)	58 (9.1)
Mostly trust	121 (37.7)	120 (38.0)	241 (37.8)
Completely trust	77 (24.0)	80 (25.3)	157 (24.6)

Continued

TABLE 1—Continued

Response to scientific studies (i.e., risk assessments)			
Completely distrust	25 (8.0)	18 (6.0)	43 (7.0)
Mostly distrust	31 (10.0)	32 (10.6)	63 (10.3)
Neutral	55 (17.7)	28 (9.3)	83 (13.5)
Mostly trust	114 (36.7)	142 (47.0)	256 (41.8)
Completely trust	86 (27.7)	82 (27.2)	168 (27.4)
Response to community's concerns about chemical weapons disposal			
Completely distrust	28 (8.7)	21 (6.6)	49 (7.7)
Mostly distrust	41 (12.8)	46 (14.4)	87 (13.6)
Neutral	35 (10.9)	26 (8.2)	61 (9.5)
Mostly trust	129 (40.2)	143 (44.8)	272 (42.5)
Completely trust	88 (27.4)	83 (26.0)	171 (26.7)

A total of 655 respondents completed the survey, 333 from Anniston and 322 from Blue Grass. The response rate was 77% for Anniston residents and 79% for Blue Grass residents. The rate of respondents' refusal to participate in both studies is comparable to that of other large population surveys.^{34,35} The margin of sampling error for both samples was approximately ± 5%.

RESULTS

Trust in the Army

The first set of items addressed the research question, "To what extent do residents living near the Anniston and Blue Grass sites trust the army?" Their responses are delineated in Table 1. Respondents were more likely to trust than to distrust the army in all of the areas in which they were questioned. The mean level of trust across all items was approximately 3.60 for Anniston and 3.65 for Blue Grass. When the responses "completely trust," "mostly trust," "mostly distrust," and "completely distrust" categories were collapsed into 2 categories—"trust" versus "distrust"—high levels of trust were obvious

among this sample. The odds ratios of "trust" to "distrust" were large across all the questions; residents were likely to trust the army to store chemical weapons safely (odds ratio [OR]=4.5), comply with regulations to protect the public (OR=4.12), respond to scientific studies (OR=4.0), dispose of chemical weapons safely (OR=3.9), respond to community concerns about disposal issues (OR=3.26), protect the health of the residents (OR=3.23), keep the community well informed of site activities (OR=2.22), answer questions from residents honestly (OR=2.20), and quickly dispose of chemical weapons (OR=1.44).

Preparedness and Risk of a Chemical Emergency

Our survey examined the extent to which residents living near the Anniston and Blue Grass sites believed a chemical emergency posed a personal threat and the extent to which they believed that they as residents were adequately prepared for such an emergency.

Table 2 shows respondents' perceived risk of various emergency events occurring over the

TABLE 2—Perceived Risk of Chemical Emergency Occurring Over the Next Year Among Residents Living Near the Anniston, Ala, and Richmond, Ky, (Blue Grass Army Depot) US Army Chemical Weapons Stockpile Sites: Fall 2001

Chemical Emergency Scenario and Perceived Risk	Anniston No. (%)	Blue Grass No. (%)	Total No. (%)
“Chemical agent is accidentally released from the site.”			
Extremely unlikely	55 (17.5)	52 (16.8)	107 (17.1)
Somewhat unlikely	95 (30.3)	96 (31.0)	191 (30.6)
Unsure	18 (5.7)	11 (3.5)	29 (4.6)
Somewhat likely	93 (29.6)	98 (31.6)	191 (30.6)
Extremely likely	53 (16.9)	53 (17.1)	106 (17.0)
“People in my community become ill from a chemical agent that is accidentally released from the disposal of weapons.”			
Extremely unlikely	65 (20.4)	85 (27.4)	150 (23.8)
Somewhat unlikely	91 (28.5)	90 (29.0)	181 (28.8)
Unsure	12 (3.8)	5 (1.6)	17 (2.7)
Somewhat likely	78 (24.5)	74 (23.9)	152 (24.2)
Extremely likely	73 (22.9)	56 (18.1)	129 (20.5)
“I have to leave my home because a chemical agent is accidentally released from the site.”			
Extremely unlikely	84 (26.1)	94 (29.7)	178 (27.9)
Somewhat unlikely	88 (27.3)	95 (30.1)	183 (28.7)
Unsure	6 (1.9)	4 (1.3)	10 (1.6)
Somewhat likely	83 (25.8)	70 (22.2)	153 (24.0)
Extremely likely	61 (18.9)	53 (16.8)	114 (17.9)
“A ‘false alarm’ will occur.”			
Extremely unlikely	36 (11.4)	56 (17.7)	92 (14.5)
Somewhat unlikely	53 (16.7)	70 (22.1)	123 (19.4)
Unsure	7 (2.2)	7 (2.2)	14 (2.2)
Somewhat likely	133 (42.0)	113 (35.6)	246 (38.8)
Extremely likely	88 (27.8)	71 (22.4)	159 (25.1)
“Chemical agent is released and travels beyond the site boundaries.”			
Extremely unlikely	69 (21.5)	81 (26.2)	150 (23.8)
Somewhat unlikely	78 (24.3)	81 (26.2)	159 (25.2)
Unsure	10 (3.1)	9 (2.9)	19 (3.0)
Somewhat likely	87 (27.1)	70 (22.7)	157 (24.9)
Extremely likely	77 (24.0)	68 (22.0)	145 (23.0)

next year (i.e., 2002) during the disposal or storage of chemical weapons at the 2 sites. Interestingly, respondents were more likely to believe that a false alarm would occur than would any actual chemical

release. There was little difference between the number of respondents who believed a chemical emergency was likely to occur during the disposal or storage of chemical weapons and those who believed a

TABLE 3—Self-Perceived Preparedness for Chemical Emergency Among Residents Living Near the Anniston, Ala, and Richmond, Ky, (Blue Grass Army Depot) US Army Chemical Weapons Stockpile Sites: Fall 2001

Respondent's Self-Perceived Preparedness	Anniston, No. (%)	Bluegrass, No. (%)	Total, No. (%)
Confident that he/she could protect family and self	45 (14.1)	43 (13.7)	88 (13.9)
Knew what he/she should do, but not confident of ability to do it	122 (38.1)	125 (39.9)	247 (39.0)
Had no idea what to do and wouldn't be able to protect family and self	122 (38.1)	123 (39.3)	245 (38.7)
Had no idea what to do but it didn't matter because disaster wouldn't happen	9 (2.8)	2 (0.6)	11 (1.7)
Confident, but didn't matter because disaster wouldn't happen	22 (6.9)	20 (6.4)	42 (6.6)

chemical emergency was not likely to occur. When the different scales were collapsed into the 2 categories “likely” versus “unlikely” (with “unsure” responses discarded), most respondents believed that an emergency was unlikely to happen. The odds ratios for the likelihood of a chemical emergency across all the questions ranged from about 1.88 (a false alarm would occur) to 0.74 (evacuation of home because of an accidental release of a chemical agent).

Table 3 shows respondents' self-perceived preparedness for an emergency. Approximately 60% of respondents believed they knew what to do in case of a chemical emergency but were not confident that they could actually do it if the situation occurred. There were also many respondents who did not know what to do and would not be able to protect their families. There were a few who did not have an idea of what to do, but who also did not believe that an emergency would occur. As the data clearly show, only a small

percentage of respondents felt prepared. Responses across the 2 sites did not appear to differ substantially.

Perceptions of Preparedness Programs After September 11

The next set of items addressed the research question, “Do residents living near the Anniston and Blue Grass sites believe that their perceptions of the emergency preparedness program were affected by the September 11 tragedy?” These “post hoc” questions were added to the survey after field testing and were not intended to be the primary focus of the study. Respondents who answered that their perceptions of the program were affected by September 11 (58.1%) were asked how their perceptions were affected (Table 4). The most common response was, “It made me worry that the site might be a target for terrorism” (43.9%). Very few respondents (3.3%) expressed a desire to become more involved in decisions regarding the site because of the events of September 11.

TABLE 4—Ways in Which Events of September 11, 2001, Affected Perceptions of Residents Living Near the Anniston, Ala, and Richmond, Ky, (Blue Grass Army Depot) US Army Chemical Weapons Stockpile Sites: Fall 2001

Effect of September 11 on Perceptions ^a	Anniston, No. (%)	Blue Grass, No. (%)	Total, No. (%)
"It made me worry more about the security of stored chemical weapons."	62 (23.0)	66 (26.6)	128 (24.8)
"It made me want to dispose of the chemical weapons more quickly."	39 (14.5)	43 (17.3)	82 (15.9)
"It made me want to become more involved in site decisions."	9 (3.3)	8 (3.2)	17 (3.3)
"It made me worry that the site might be a target for terrorism."	131 (48.7)	96 (38.7)	227 (43.9)
Other response	28 (10.4)	35 (14.1)	63 (12.2)

Note. Responses are only from the 58.1% of surveyed residents who indicated that their perceptions of the army's emergency preparedness program were affected by September 11. ^aRespondents were asked which statement best expressed how the events of September 11, 2001, affected their perceptions of the emergency preparedness program.

Inferential Findings

We constructed a model that addressed the question, "What factors predict variation in perceived risk of a chemical emergency?" The predictor variables used for this model were trust in the army, educational attainment, and influence of September 11 on perceptions.

This model was moderately predictive of perceived risk (F-score=53.79; $P \leq .05$). About 25% of the variance in perceived risk can be explained by the 3 predictor variables. No interactions were found to be significant among all the predictor variables entered into the model; hence, the main-effect relationships were most relevant to perceived risk. The estimated marginal means for the main-effect variables suggest that residents who had low trust in the army perceived a much higher degree of risk of a chemical emergency than did residents who had high levels of trust in the army. Additionally, residents without college educations perceived a

significantly higher degree of risk of a chemical emergency than did residents who had a college degree.

Finally, residents who were influenced by the September 11 tragedy perceived a significantly higher degree of risk of a chemical emergency than did residents who were not influenced by the tragedy. Although perception of risk was highest among respondents who answered "don't know" when asked whether September 11 influenced their perceptions of the emergency preparedness program, a Tukey test did not indicate that the high mean of perceived risk in this group was significantly different than that of the "yes" and "no" groups.

DISCUSSION

Our study found that the level of emergency-related knowledge of residents living near 2 chemical weapons sites was low. The study was done soon after September 11, but the findings

regarding unpreparedness are reflected by current studies, which reveal serious deficiencies in school emergency disaster planning, low levels of individual-level terrorism preparedness, and a lack of knowledge of and varying public attitudes toward chemical terrorist threats.^{3,16,36}

Very few residents believed they would be able to protect themselves if a chemical emergency occurred at the sites. Almost 40% of residents indicated they had no idea what to do in case of such an emergency, and another 39% said they knew what to do but were not sure whether they could do it if an emergency arose. This apparent lack of preparedness is disconcerting because deficient knowledge of emergency procedures precludes the public from responding appropriately,^{14,15,22,37} and risk of a disaster is clearly compounded by an ill-prepared public.^{14,15,21} Even when aware of a given procedure (e.g., site alarms), these residents were not confident that the procedure was effective.

Residents' risk perception and attitudes toward the possibility of a chemical emergency were somewhat expected, although the level of unpreparedness among the residents sampled was not. As other studies have shown, events that are thought to be sudden, unexpected, and uncontrollable increase the perception of risk.³⁸ Most residents were likely to believe that a "false alarm" would occur and that a chemical emergency was unlikely. They seemed more concerned about everyday risks like industrial pollution than about a chemical emergency. A catastrophic event of this type was apparently not a source of everyday concern for these residents.

The September 11 tragedy did, however, appear to heighten perceptions of risk to some degree. The events of that day made respondents worry more about security or terrorism issues posed by the sites. Some residents even indicated that September 11 had influenced their desire to have the chemical weapons stored in the 2 sites disposed of more quickly. Despite these concerns, very few people indicated that the events increased their desire to participate in site decisions. On the other hand, their trust in the army appeared to temper the perception of risk that was heightened by September 11. As found in previous studies, residents perceived less risk if they trusted those in charge of preventing disasters.¹⁷⁻¹⁹

Our results do not tell us very much about the current level of emergency preparedness among residents living near the 2 sites. It only gives a baseline from which the effects of current emergency management efforts might be evaluated. Despite a clear need for evaluation, the fact is we do not know if people living near these sites today are any more prepared than those we assessed in 2001. The only indication that risks may have decreased at these sites is that approximately 40% of the chemical stockpile at the 8 army stockpile sites in the United States has been destroyed.³⁹ However, none of the chemical stockpile has been destroyed in Kentucky and only about 27% has been destroyed in Alabama.³⁹ Although the disposal of chemicals and emergency management at the sites is well documented, there is a glaring lack of evidence in the professional literature of the effects of these activities on the public. Recent studies have focused only on the preparedness

of emergency personnel for the use of chemical weapons by terrorists.^{16,31} There is a conspicuous need to do a follow-up study at all 8 stockpile sites.

Conducting such a study will be difficult. Since September 11, most US Army programs have become significantly less transparent. Much of the state and local control over emergency management in general has eroded in this era of the “executive presidency,”³⁹ in which an ever-increasing “air of secrecy” will make it hard to do such an assessment. Clearly, the Department of Homeland Security and FEMA may be reluctant to test or even discuss the effectiveness of their programs. Effective emergency preparedness must focus on building a strong relationship between the community and the public health workforce. If the public trusts the public health workforce, they will be more likely to buy into and effectively implement the preparedness process. In this context, transparency and public confidence is crucial. ■

About the Authors

The authors are with the Department of Pediatrics, University of Tennessee Health Science Center, Memphis.

Requests for reprints should be sent to Bryan L. Williams, PhD, Department of Pediatrics, University of Tennessee Health Science Center, 301 WPT, 50 N Dunlap St, Memphis, TN 38103 (e-mail: bwilli36@utmem.edu).

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Contributors

B.L. Williams originated and implemented the study, carried out the data analyses, and led the writing. M.S. Magsumbol provided critical reviews and participated in the updating and editing of the article.

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