

The Public's Response to Biological Terrorism: A Possible Scenario Involving the Release of Anthrax in an Unidentified Location

Executive Summary of Polling Results

Overview and Purpose

This poll was conducted by researchers at the Harvard Opinion Research Program in order to provide public health officials with critical information that could support emergency planning and communications regarding biological terrorism. It is the second in a series that addresses key questions about the public's response to a scenario involving the purposeful release of anthrax at an unknown site within a city or town. The results shed light on the public's response to public health officials' recommendations that they go to nearby "point of dispensing" sites (PODs) to obtain and take prophylactic antibiotics, including possible sources of resistance. In addition, it provides insights about information sources that the public would turn to in order to get logistical information about these PODs.

By tracking the public's response over time, results allow us to assess whether the public's views are stable and, if there are changes in the public health, policy or political arenas, how the public is likely to respond. In this way, advice for emergency communications and provisions stays up-to-date. In addition, this second poll expands our understanding of the issues in three key ways:

1. There was an oversample of African Americans and Hispanics that allows for an examination of the ways in which people in these racial/ethnic minority groups may react differently to the situation.
2. The scenario was expanded to include an assessment of people's views concerning an alternative dispensing system for prophylactic antibiotics that involves the U.S. Postal Service, which has been discussed as a complementary approach that may be targeted to particular geographic areas if needed.
3. Questions were re-designed in order to further explore findings from Year 1 that suggested a substantial share of the public who would go get pills at the dispensing sites would nonetheless hold on to them rather than consume them. Questions were also added to further explore whether misunderstandings about the contagiousness of anthrax would impact public willingness to go to the PODs.

Key Results

The findings suggest that, after seeing media reports about anthrax cases in their city or town, the majority of the public would be worried about getting ill and most would follow public health officials' recommendations to go pick up prophylactic antibiotic pills for themselves and for their children at PODs set up in convenient locations. Even if the U.S. Postal Service were to deliver antibiotic pills to households, a majority of the public would nonetheless go to PODs – largely in order to get the antibiotic pills more quickly, but also because they have questions they would want to ask of a live person. A smaller share say they would go to the PODs because they would not have confidence that the U.S. Postal Service would deliver the pills in time, although the public had more confidence in the U.S. Postal Service to deliver the pills than in the federal or state/local public health agency's ability to do their part in getting the pills to the public.

Despite important signs of public willingness to comply with public health recommendations, results from this poll also suggest there may be several issues that could present challenges for public health officials during an attack. First, although more than half of the public says they are familiar with the term “inhalation anthrax,” approximately 40% of those who say they are familiar with the term believe the illness is contagious or do not know if it is. After an anthrax attack, this misinformation could trigger more widespread concern about being near people who may have been exposed and also translate to resistance to going to PODs. When asked directly about the major reasons why they would be unlikely or only “somewhat likely” to go to the PODs, exposure to anthrax and other safety concerns were paramount. Specifically, people were worried about the government’s ability to control crowds at the PODs and were worried about the safety of the pills, as well as about getting exposed to anthrax from other people who were sick or from materials on buildings, clothing or transportation. Poll findings also revealed a potential challenge in encouraging the public to consume the pills even if they pick them up at the PODs. More than a quarter said they would hold onto the pills “for the foreseeable future”. Most of these people said they would only use the pills if they or their child had symptoms or they knew that they/their child had been in a location where anthrax was released. Thus, messages about the importance of starting to take antibiotic pills quickly after exposure must be clear in an actual attack in order to maximize the effectiveness of dispensing efforts.

In order to get logistical information about the PODs, people say most commonly that they would turn to local public health institutions as well as to local news and police or fire departments. Few said they would be using social media to get logistical information about obtaining prophylactic antibiotics, although it is possible people may use social media for other reasons in an attack.

African Americans and Hispanics felt themselves to be at greater risk than whites for getting seriously ill or dying in the scenario described, and they were more concerned about the possibility of a terrorist or anthrax attack in the United States within the next 12 months. African Americans had slightly greater confidence in federal and state/local public health authorities to do their part in delivering prophylactic antibiotics to the public. In turn, African Americans were slightly more likely than whites to say they would get the antibiotic pills from PODs. Once offered the option of waiting for delivery by the U.S. Postal Service, Hispanics were more likely than African Americans or whites to say they would still go to PODs.

Considering just those people who were not “very likely” to go to a POD, people in racial/ethnic minorities (African Americans and Hispanics combined) were more likely than whites to cite several factors as “major reasons” for their decision, including concern about pill safety, worry about getting exposed to leftover anthrax on buildings, people or transportation; a belief that they could get pills from their own doctor and worry that there would not be a sufficient supply of pills. This suggests that tailored communications around these themes may help to engage racial/ethnic minorities who are reluctant to go to PODs. Both African Americans and Hispanics were more likely to say they would turn to all sources for information about logistics.

Overall, there were few changes in the total public’s response from year 1 to year 2, suggesting that responses are stable in this period.

Results and Analysis

1. How knowledgeable is the public about anthrax?

Although a majority of the public (62%) believes they are familiar with the term “inhalation anthrax,” this leaves more than a third of the public (37%) who admits they are not familiar with it. Even among those who say they are familiar with the term, more than a quarter (28%) mistakenly believe that inhalation anthrax is contagious, or can be “passed from person to person,” with another 16% saying they don’t know if it is. This means that, looking at the population as a whole, 20% of Americans are “not at all familiar” with the term ‘inhalation anthrax’, an additional 22% hold the mistaken belief that inhalation anthrax is contagious, and 12% do not know whether or not it is contagious. In other words, a majority of Americans (54%) hold a current belief set that could compromise their willingness to follow emergency instructions meant to protect them against this biological agent. For example, the contagiousness misperception could result in public resistance to going to PODs to get prophylactic treatment out of a concern of getting anthrax from other people in the process. These factors could also make the public vulnerable to misinformation at the time of an attack.

Racial/ethnic minorities may be especially vulnerable to these risks. Hispanics are less likely than whites or African Americans to say they are familiar with inhalation anthrax (47% vs. 65% and 63% respectively). Further, among people who said they were familiar with inhalation anthrax, African Americans are more likely than whites or Hispanics to say they thought anthrax was contagious (36% vs. 25% and 30% respectively).

2. How is the public likely to react to news of an anthrax attack in their city or town?

The public is likely to be worried about their own safety if they received news of an anthrax attack in an unknown location in their city or town. Four out of five adults (80%) said they would be worried about becoming seriously ill or dying if they heard about cases in the news, including about half (46%) of adults who said they would be “very worried” and 34% who said they would be “somewhat worried” about those possibilities. Only 19% of respondents said they would not be worried after hearing this news. Racial and ethnic minorities felt particularly worried, as more of both Hispanics and African Americans said they would be “very worried” about becoming seriously ill or dying compared with whites (63% and 55% vs. 41%).

The vast majority of people across all racial/ethnic groups believe that the illness is very serious if untreated. More than 90% said they would be likely to get seriously ill or die if it turned out they were exposed to anthrax and were not treated, including 69% who say they would be “very likely” and 23% who say “somewhat likely.” There were no statistically significant differences across racial/ethnic groups.

3. Would the public believe statements by public health officials that the antibiotic pills used to treat exposure to anthrax are safe and effective?

A majority of the public believes that the antibiotic pills would be safe and effective for them to take, but these beliefs are not deeply held and could become challenges for communications during an attack. While most adults say that they would believe the antibiotic pills were safe to take (83%), this is made up of 51% of the public saying the pills would be “somewhat” safe and only 32% saying “very safe.” Nearly the same breakdown exists in regard to effectiveness. Eight-five percent say they would believe it was effective in preventing them from becoming seriously ill or dying (86%), but 60% say “somewhat effective” and only 26% say “very effective.”

People in racial/ethnic minorities are less likely to believe the pills are safe, although no such differences exist regarding effectiveness. While 85% of whites say the pills would be safe, 79% of African Americans and 78% of Hispanics say the same. Further, while more than a third of whites say the pills would be “very safe”, only roughly a quarter of African Americans (25%) and Hispanics (23%) say the same.

4. How confident is the public in the government’s ability to deliver antibiotic pills?

While a majority of the public said they were confident in the government’s ability to deliver antibiotic pills quickly to everyone in their city or town, it is notable that a sizeable minority did not agree. Nearly two-thirds (65%) were confident that there would be a sufficient supply of the antibiotics for everyone in their city or town who wanted them, but a third (35%) were not. A similar divide exists with respect to confidence in their *local or state public health agency’s* ability to deliver the pills to the public; two-thirds (66%) were confident their local or state public health agency would be effective in getting the pills to those in the public who want them, but a third (34%) were not. A slightly narrower majority of the public (60%) was confident that *federal* public health agencies would be able to deliver these antibiotic pills in time to their local or state public health agency, while 40% were not.

African Americans were more confident than whites and Hispanics in the federal government’s ability to deliver the antibiotic pills to the local/state public health department (73% vs. 57% and 59%) and African Americans were more confident than whites in the local/state public health department’s ability to get the pills to the public (75% vs. 65%). There were no statistically significant differences across racial/ethnic groups in terms of the perceptions of the federal government having sufficient supplies.

5. Is the public likely to follow public health officials’ initial recommendations to go pick up antibiotic pills?

The vast majority of the public would follow public health officials’ initial recommendation to go get antibiotic pills from the PODs after an anthrax attack for themselves (89%) or for their children (95% of parents). Just more than two-thirds of adults (68%) said they would be “very likely” to go get the first round of antibiotic pills being distributed by public health officials for themselves after an anthrax attack and 21% said “somewhat likely.” Among parents, 84% said they would be “very likely” to go get the antibiotic pills for their children, and 11% said “somewhat likely.” The percentage of parents saying “very likely” has increased slightly from

2009 (73%), but in practical terms both of these percentages suggest very strong likelihood of going.

African Americans were more likely than whites to say they would go to a site. Ninety-four percent of African Americans said they would be likely to go (including “very” and “somewhat”) compared to 89% of whites. And just focusing on those who said they would be “very likely” to go, three quarters (75%) of African Americans said they would be “very likely” to go compared to 68% of whites. No statistically significant differences existed among parents in different racial/ethnic groups.

6. *Why might people be less likely to follow public health officials’ initial recommendation to go get antibiotic pills after an anthrax attack?*

There are a cluster of reasons that may make the public hesitant to go get antibiotic pills from the PODs after an attack such as this. Analyzing the reasoning among those who said they were not likely or only “somewhat likely” to go get antibiotic pills at these dispensing sites (for themselves or for their children) suggests that safety concerns related to both the process of getting the antibiotic pills and the pills themselves play a role. Further, confusion about the contagiousness of anthrax was also a contributing factor. Adults who were not likely or only somewhat likely to go to the PODs to get the antibiotic pills most often cited worries about officials controlling crowds (48%) as a “major reason” for their decision. Other major reasons were that they would: worry about the safety of the antibiotic pills (43%); worry about being exposed to anthrax from other people while going to PODs (42%); and worry about getting exposed to anthrax left on buildings, people or transportation (40%). An equal percentage (40%) would wait to get antibiotic pills until they were sure they had been exposed to anthrax. A slightly smaller share, but still more than a third, would worry that there would not be enough antibiotic pills (34%); would worry about having an allergic reaction to the antibiotic pills (34%); or felt they would be able to get antibiotics from their own doctor rather than go to the POD (34%). About a quarter (26%), said that their belief the government would be overblowing the situation would be a major reason for being unlikely or only somewhat likely to go; think the pills would not be effective (26%); or would be worried about a second attack (26%). A similar fraction said they would think it would be unlikely that they or their child would get sick (23%) or think it would be difficult to get there and back (21%).

People in racial/ethnic minorities (African Americans and Hispanics combined) were more likely than whites to cite several factors as “major reasons” for their decision. These factors included concern about pill safety (58% vs. 38%), worry about getting exposed to leftover anthrax on buildings, people or transportation (51% vs. 37%); worry that there would not be a sufficient supply of pills (48% vs. 32%); a belief that they could get pills from their own doctor (45% vs. 31%); worry about having an allergic reaction to the pills (45% vs. 31%); worry about a second anthrax attack (40% vs. 22%); and a belief that they/their child is unlikely to get sick from anthrax (35% vs. 19%).

7. *If people went to the site, would they take the pills or hold on to them? Why would they hold on to them rather than take them?*

Among those who would be likely to go the dispensing site, nearly a quarter say they would not actually take the pills and would instead “hold on to them for the foreseeable future” (23%), and similarly, almost one fifth of parents (19%) say they would hold on to the pills rather than give them to their children right away. Most of those who would hold onto the pills said their “major reasons” for doing so would be that they would only use the pills if they or their children had symptoms (73%) or if they knew anthrax had been released in a place where they/their child had been (65%). About 4 in 10 (42%) said they would hold onto the pills in case there was a second anthrax attack. Thus, in order to maximize the effectiveness of the dispensing programs, communication needs to make clear that people need to take prophylactic antibiotics before they have symptoms and before they can be certain of their exposure. These findings are consistent with studies of people involved in the 2001 anthrax attacks, as many Congressional staffers reported that they received antibiotic pills but did not take them.

8. *How receptive would the public be to an alternative delivery mechanism involving the U.S. Postal Service? If they are less receptive, why?*

Nearly three-quarters of the public (73%) say they are confident that the U.S. Postal Service would be able to deliver antibiotic pills to households in pre-selected areas. This is statistically significantly more than the share who say they are confident that the federal public health agency will delivery pills to the local/state public health agencies (60%) or that the state/local agencies’ abilities to deliver to the public (66%). This also includes a greater share who say they are “very confident” in the U.S Postal Service compared to federal or state/local public health agencies (30% vs. 13% and 14% respectively).

Despite higher confidence levels, a majority of the public (54%) say they would go to a POD rather than wait for delivery by the postal service. Hispanics are even more likely than African Americans to say they will go to a POD (61% vs. 47%). The vast majority (80%) of those who plan to go to the sites say that a “major” reason for this decision would be that they believe they would be able to get the pills faster. A majority (60%) also say a major reason would be their desire to ask questions of a person. Nonetheless, 42% said their reason for going to the site would be their lack of confidence in the ability of the U.S. Postal service to deliver the pills. Nearly the same fraction (41%) said they would want to be able to get a different kind of antibiotic (because of allergies) or a liquid form. A relatively smaller share said they would be worried that pills from the U.S. Postal Service would be less safe (25%) or less effective (20%) than those received at the PODs.

9. *What sources of information would the public turn to in order to learn about logistics of getting pills from dispensing sites or the U.S. Postal Service?*

The public reports that they would be most likely to turn to two sources of information to learn more about the process of getting the antibiotic pills: their local TV news (52%) or their state and local public health department (51%). Smaller shares would turn to the police (39%) or fire department (33%), their local radio (33%) or local newspapers (31%), and just over a quarter would turn to the U.S. Postal Service (27%) or City Hall (26%). Only 18% would turn to social media websites, including twitter, for this logistical information. African Americans and Hispanics were more likely than whites to say they would use each of the identified information

sources, although the rank order of information sources most commonly used stayed largely the same across racial/ethnic groups.

10. How concerned is the public about an anthrax attack in the next 12 months?

Terrorism and, to a lesser extent, an anthrax attack are concerns for the majority of Americans. Three in five adults (62%) are concerned that there will be a terrorist attack in the United States in the next 12 months, while two in five (39%) are not concerned about this happening. The concern level among adults is lower overall when considering an attack that specifically involves spreading anthrax purposefully in the next 12 months; 47% said they are concerned about such an attack (including 17% “very concerned” and 30% “somewhat concerned”), while 33% said they were “not very concerned” and 20% of adults said they were “not concerned at all.” In general, concern level likely varies according to press coverage of this issue and the reported threats at the time the question is asked. Concern levels are essentially unchanged since the 2009 poll.

A greater share of African Americans and Hispanics as compared to whites were “very concerned” about a terrorist attack in the next 12 months (30% and 29% vs. 16%). When thinking about anthrax attacks more specifically, a greater share of Hispanics were concerned as compared to African Americans, who were more concerned than whites (64% vs. 52% vs. 41%). Further, a greater share of both Hispanics and African Americans were “very concerned” compared to whites (35% and 28% vs. 10%).