

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

Gillian SteelFisher, PhD, MSc Robert Blendon, ScD

Harvard Opinion Research Program
Harvard School of Public Health

Funded as part of a cooperative agreement between HSPH, the National Public Health Information Coalition and the CDC

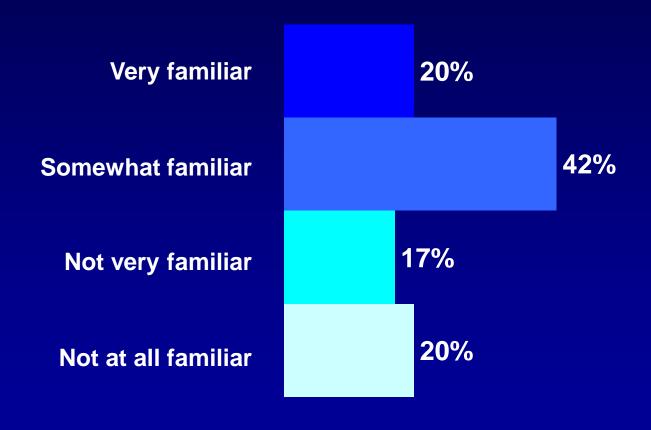
Goals and Approach

- To assess how public would respond to possible scenario
 - What is their baseline understanding of the issue?
 - Would they follow recommendations?
 - Where would they go for information?
- Differences between 2009 and 2010/11 poll:
 - Expanded scenario: U.S. Postal Service dispensing
 - Exploration of reasons for holding onto pills after obtaining them
 - Examination of differences between racial/ethnic groups
- Telephone poll (landlines and cell phones)
- Conducted December 14, 2010 to January 9, 2011
- Nationally representative random sample of adults in the United States:
 1852 respondents
- Oversamples of racial/ethnic minorities; Sample includes 261 who were Hispanic and 282 who were African American
- Trended data from 2009 poll where questions were parallel

How knowledgeable is the public about "inhalation anthrax"?

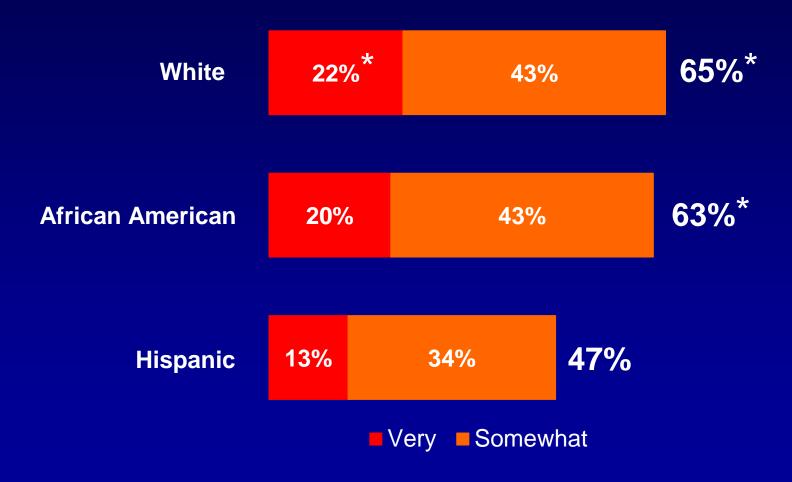
Public Familiarity with the Term "Inhalation Anthrax"





Public Familiarity with the Term "Inhalation Anthrax": Racial/Ethnic Differences

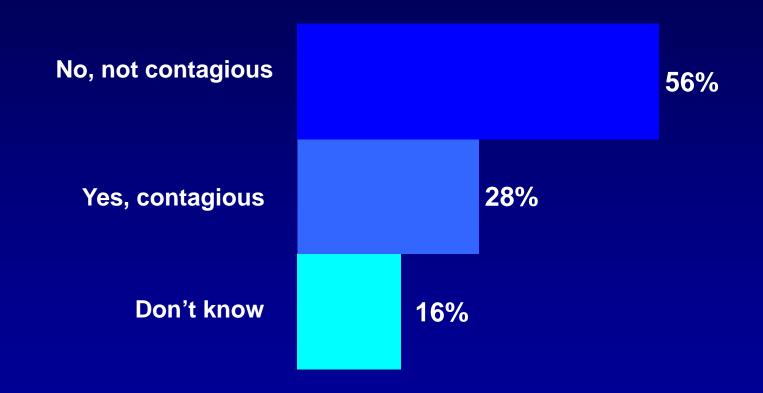
% of adults in each group saying familiar...



^{*}Statistically significantly greater than Hispanics

Mistaken Belief that Inhalation Anthrax is Contagious[†]

% of adults who are familiar with "inhalation anthrax" saying...

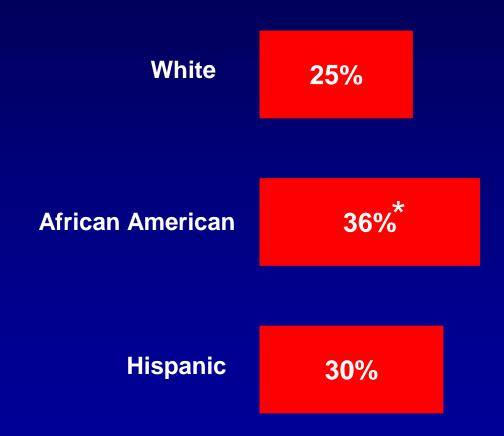


[†] "contagious" was defined in question as "it can be passed from person to person"

^{*}Among adults who are "very", "somewhat familiar" or "not very" familiar with the term "inhalation anthrax" (n = 1471)

Mistaken Belief that Inhalation Anthrax is Contagious: Racial/Ethnic Differences

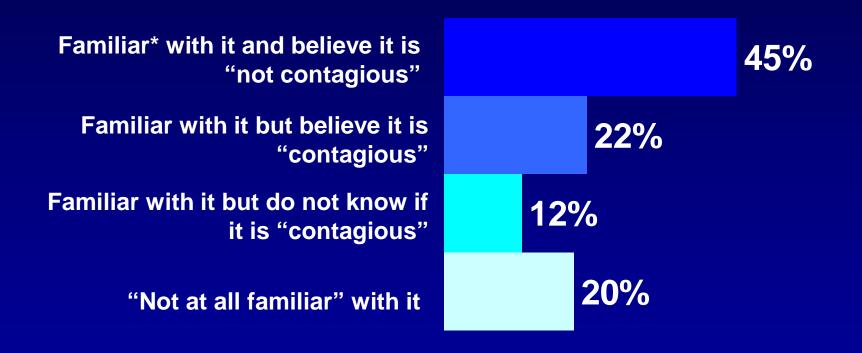
% of adults who are familiar with "inhalation anthrax" saying it is contagious



^{*}Statistically significantly greater than whites

Public Familiarity with and Knowledge about "Inhalation Anthrax"

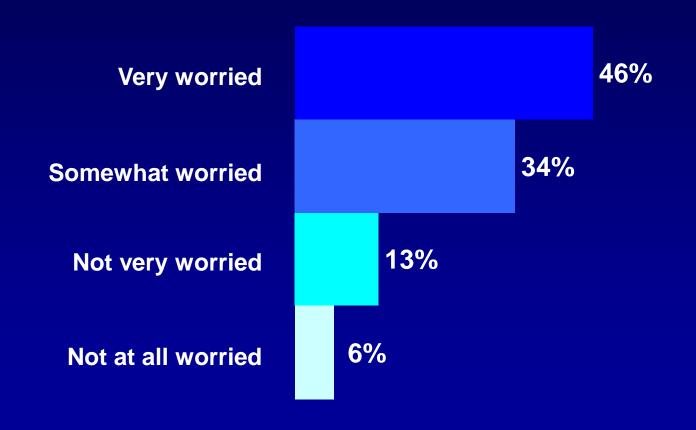
% of adults, when asked about the term "inhalation anthrax," saying...



How would the public initially react to news of anthrax cases in their city or town?

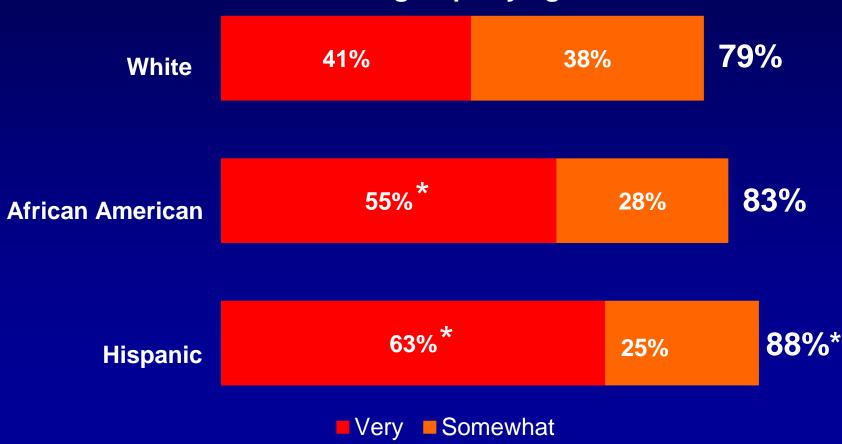
Public Worry About Becoming Seriously III or Dying if Saw/Heard in News There Were Anthrax Cases in Their City or Town

% of adults saying...



Public Worry About Becoming Seriously III or Dying if Saw/Heard in News There Were Anthrax Cases in Their City or Town: Racial/Ethnic Differences

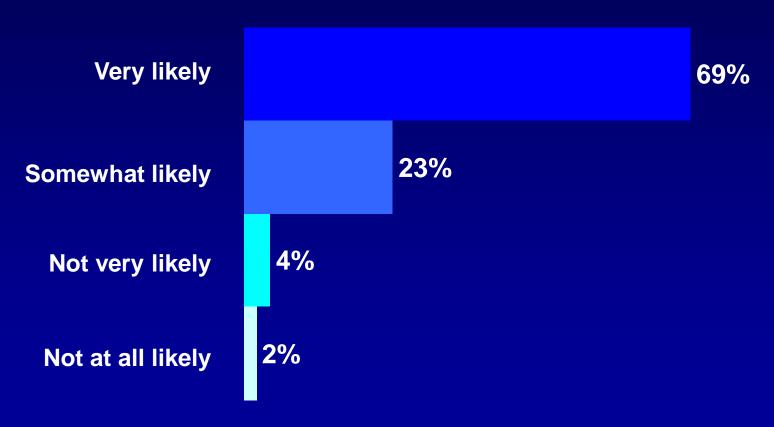
% of adults in each group saying worried



^{*}Statistically significantly greater than whites

Public Beliefs about Likelihood of Becoming Seriously III or Dying if Exposed to Anthrax and Not Treated

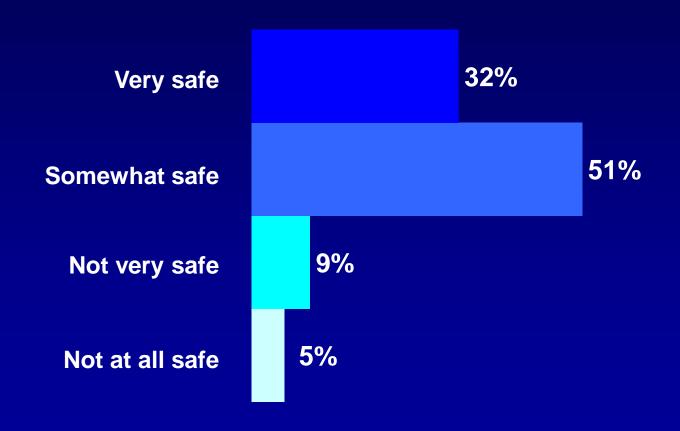




Would the public believe public health officials' statements about the antibiotic pills?

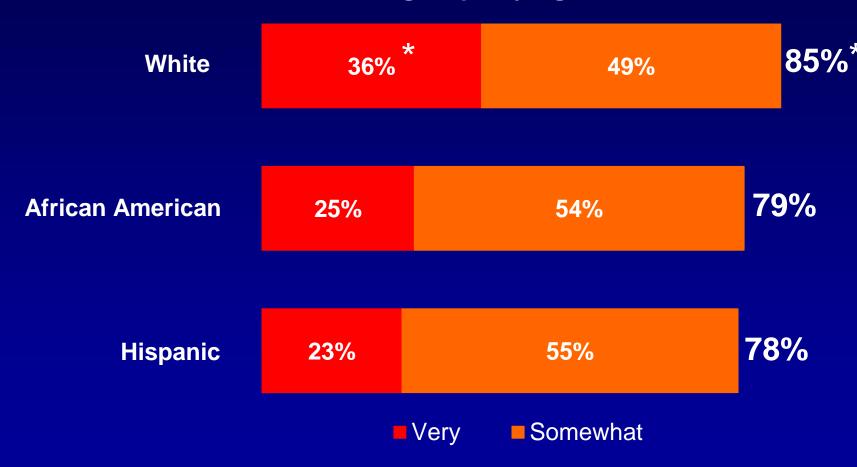
Public Beliefs as to Whether Antibiotic Pills Used to Treat Anthrax Would Be Safe to Take

% of adults saying...



Public Beliefs as to Whether Antibiotic Pills Used to Treat Anthrax Would Be Safe to Take: Racial/Ethnic Differences

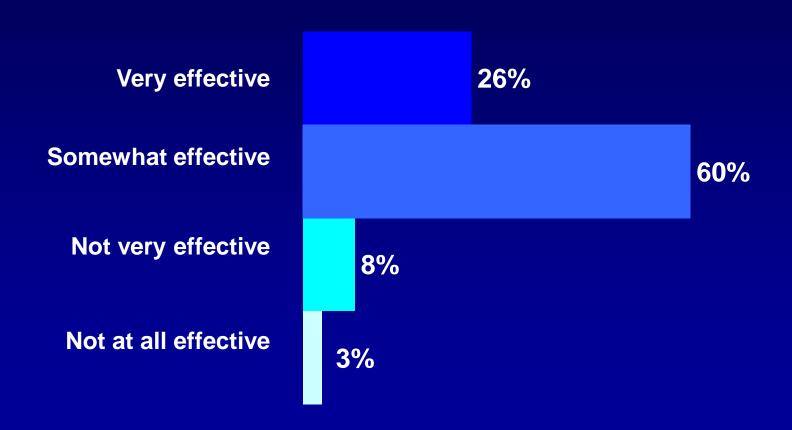
% of adults in each group saying safe



^{*}Statistically significantly greater than African Americans and Hispanics

Public Views on the Effectiveness of Antibiotic Pills in Preventing Them from Becoming Seriously III or Dying if Exposed to Anthrax

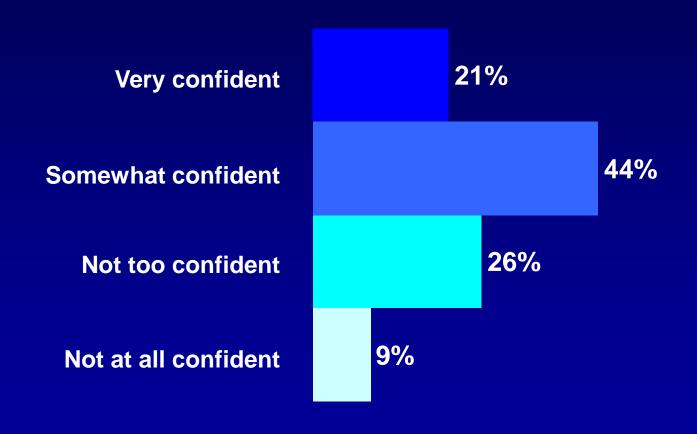
% of adults saying...



How confident is the public in the government's ability to deliver the antibiotic pills?

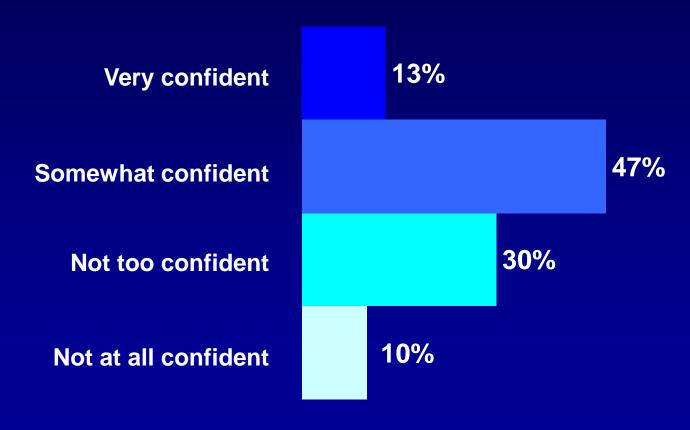
Public Confidence that the Government has a Sufficient Supply of Antibiotic Pills

% of adults saying...



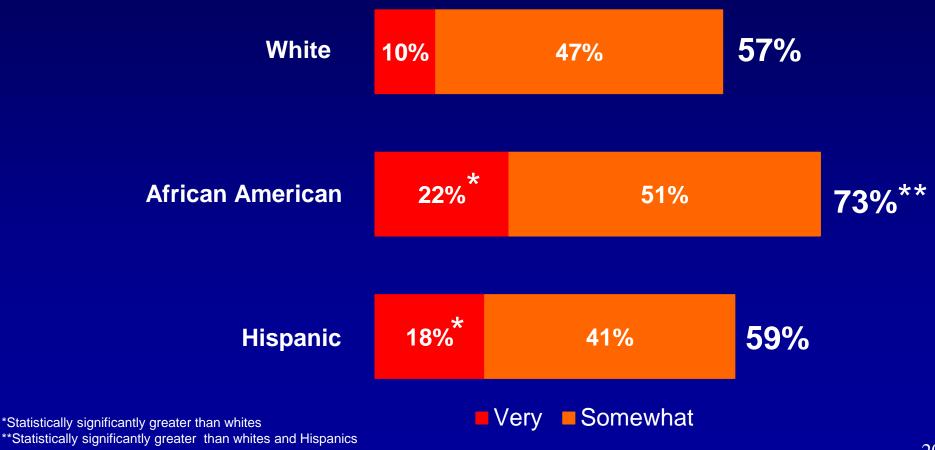
Public Confidence in Ability of Federal Public Health Agencies to Deliver Antibiotic Pills to Local or State Public Health Agencies

% of adults saying...



Public Confidence in Ability of Federal Public Health Agencies to Deliver Antibiotic Pills to Local or State Public Health Agencies: **Racial/Ethnic Differences**

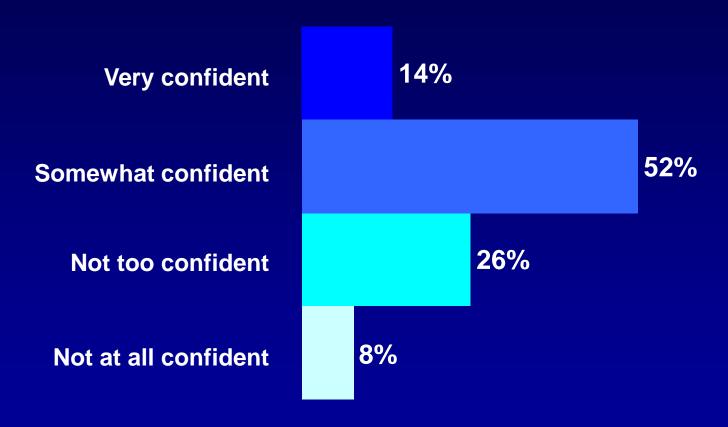
% of adults in each group saying confident



^{**}Statistically significantly greater than whites and Hispanics

Public Confidence in Ability of Local and State Public Health Agencies to Deliver Antibiotic Pills to the Public

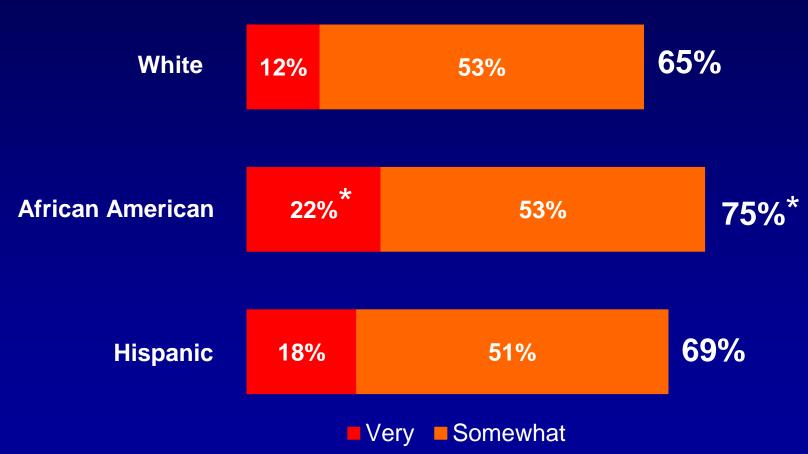
% of adults saying...



5 pp decrease in "very confident" response since 2009 poll

Public Confidence in Ability of Local and State Public Health Agencies to Deliver Antibiotic Pills to the Public: Racial/Ethnic Differences

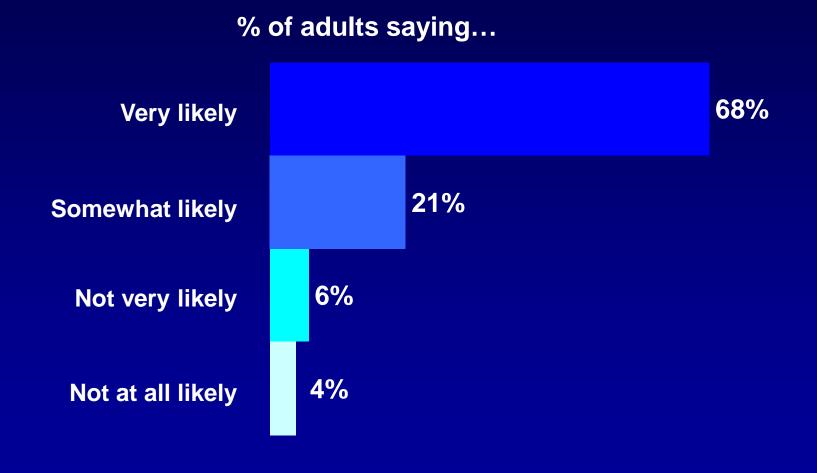
% of adults in each group saying confident



^{*}Statistically significantly greater than whites

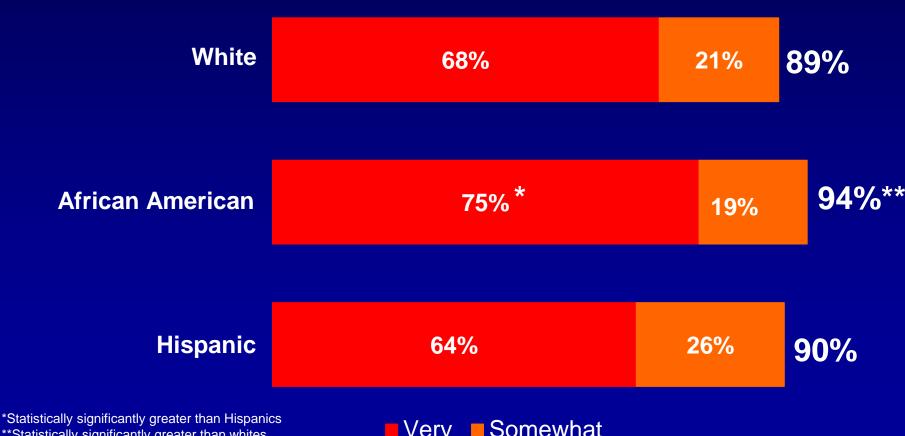
Is the public likely to follow public health officials' initial recommendations to pick up prophylactic antibiotic pills? If not, why not?

Public Views on Whether They Would Go to a Dispensing Site to Get Antibiotic Pills for Themselves within 48 Hours of Confirmed Anthrax Cases



Public Views on Whether They Would Go to a **Dispensing Site to Get Antibiotic Pills for Themselves** within 48 Hours of Confirmed Anthrax Cases: Racial/Ethnic Differences

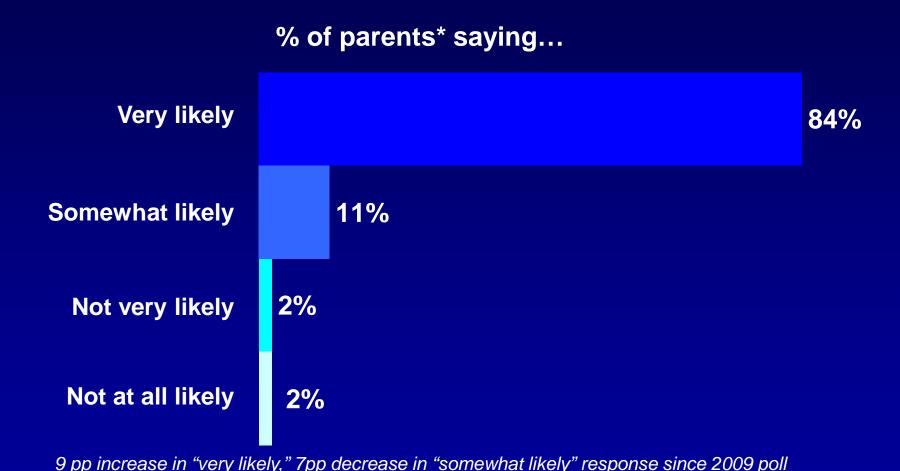
% of adults in each group saying likely



^{**}Statistically significantly greater than whites

■ Very ■ Somewhat

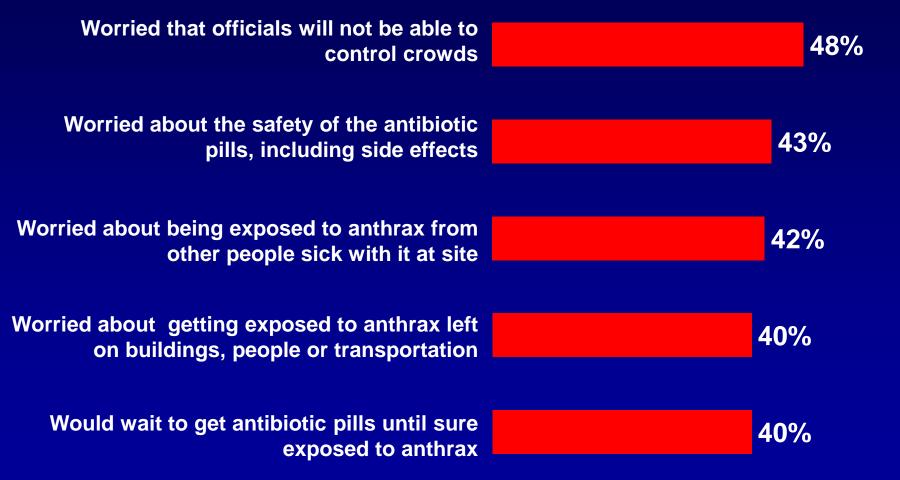
Parents' Views on Whether They Would Go to a Dispensing Site to Get Antibiotic Pills for Their Children within 48 Hours of Confirmed Anthrax Cases



*Among parents of children in household (n = 481)

Major Reasons People are Unlikely or Only Somewhat Likely to Go to Dispensing Site within 48 hours to Get Antibiotics

% of adults who are unlikely or only somewhat likely to go* saying "major reason" was that they were...



^{*}Among adults who would be unlikely or only somewhat likely to go to a dispensing site within 48 hours in order to get antibiotic pills for themselves or their children (n=562)

Harvard Opinion Research Program, Harvard School of Public Health, December 14, 2010 - January 9, 2011.

Major Reasons People are Unlikely or Only Somewhat Likely to Go to Dispensing Site within 48 hours to Get Antibiotics

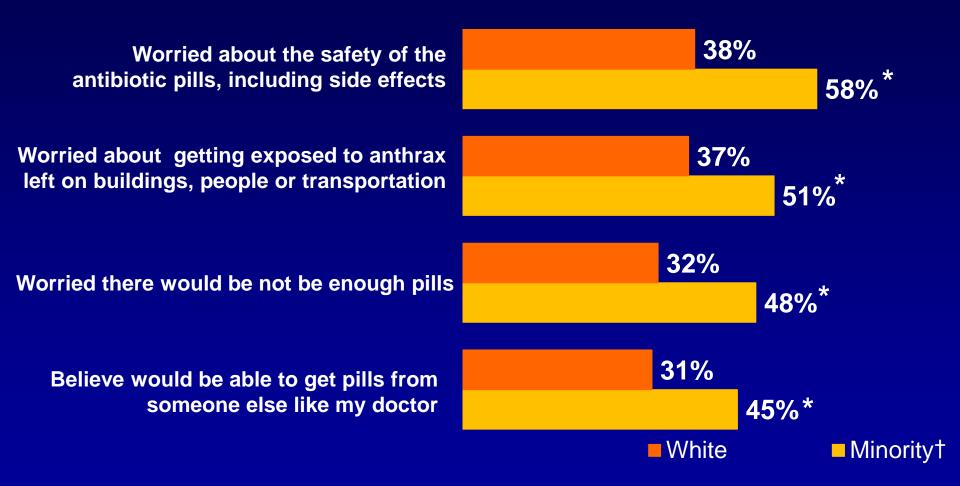
% of adults who are unlikely or only somewhat likely to go* saying "major reason" was that they were...



^{*}Among adults who would be unlikely or only somewhat likely to go to a dispensing site within 48 hours in order to get antibiotic pills for themselves or their children (n=562)

Harvard Opinion Research Program, Harvard School of Public Health, December 14, 2010 – January 9, 2011.

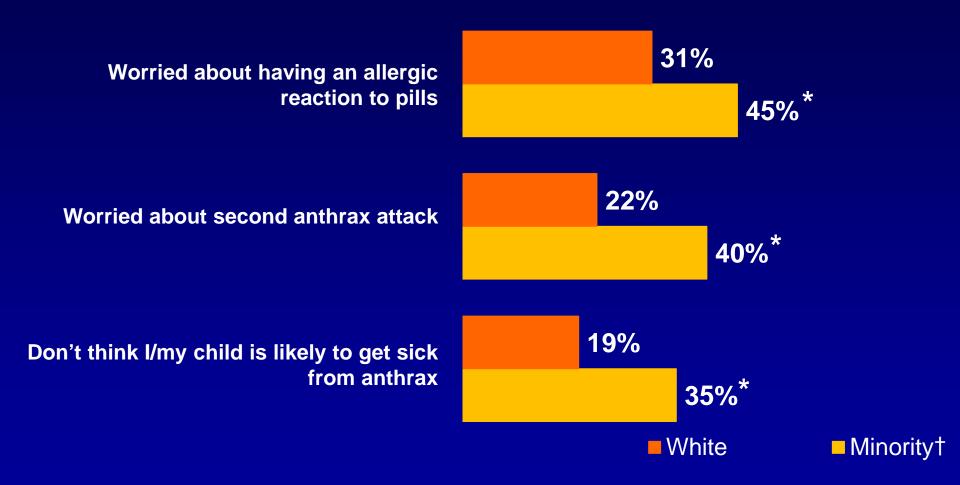
Major Reasons People are Unlikely or Only Somewhat Likely to Go to Dispensing Site within 48 hours to Get Antibiotics: Racial/Ethnic Differences



^{† &}quot;Minority" includes both African Americans and Hispanics

^{*}Statistically significantly greater than whites

Major Reasons People are Unlikely or Only Somewhat Likely to Go to Dispensing Site within 48 hours to Get Antibiotics: Racial/Ethnic Differences



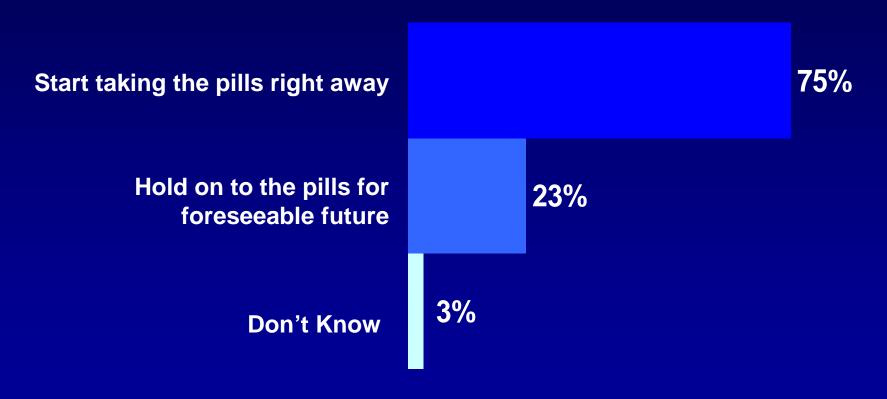
^{† &}quot;Minority" includes both African Americans and Hispanics

^{*}Statistically significantly greater than whites

If people go to the site, would they take the pills? If not, why not?

Public Views on Whether They Would Start Taking Antibiotic Pills Right Away or Hold Onto Them

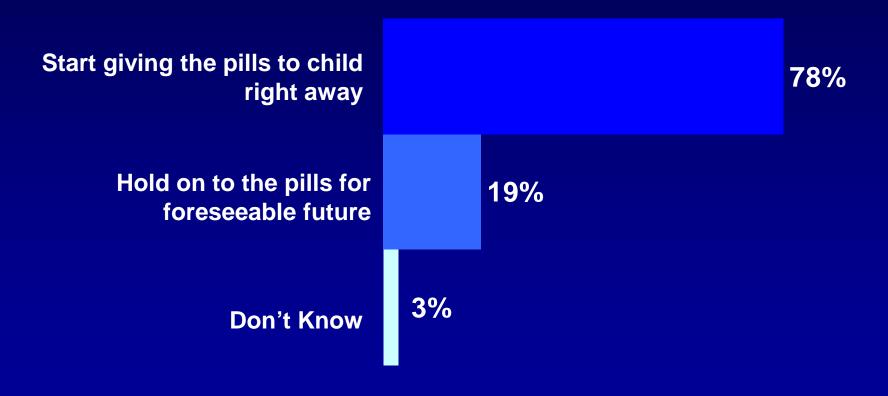
% of adults who are likely to go to dispensing site* saying they would be most likely to...



^{*}Among adults who are "very" or "somewhat" or likely to go (n = 1648)

Parents' Views on Whether They Would Start Giving their Children the Pills Right Away or Hold Onto Them

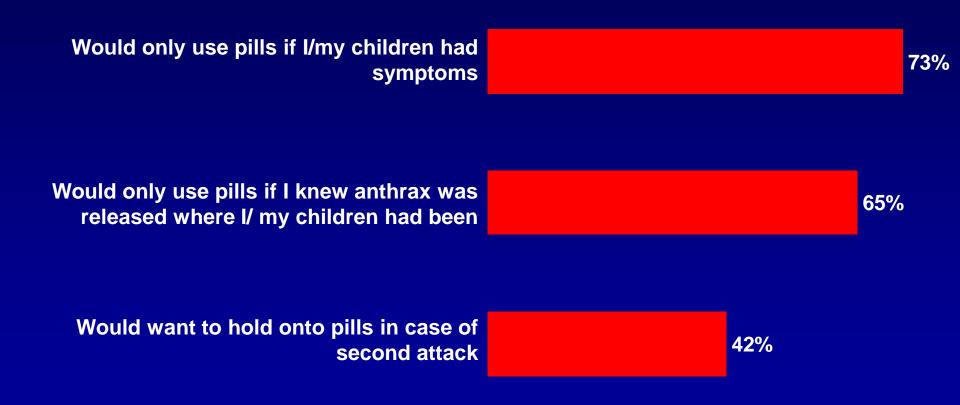
% of parents who are likely to go to dispensing site* saying they would be most likely to...



^{*}Among parents who are "very" or "somewhat" or likely to go for their children (n = 531)

Major Reasons People Say They Will Hold Onto Pills

% of adults who are hold onto the pills* saying issue was a "major reason"

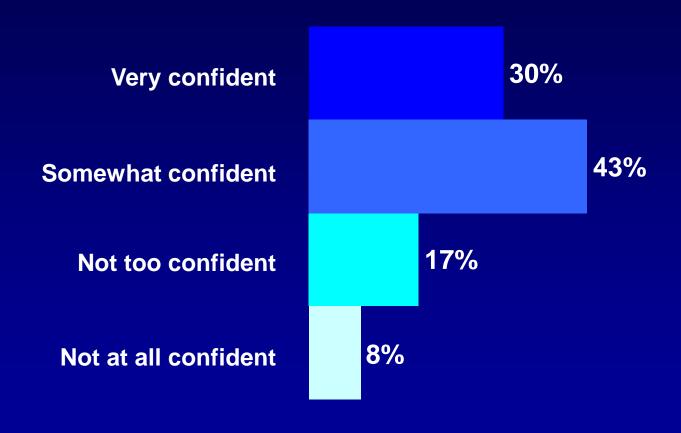


^{*}Among adults who would hold onto the pills rather than take them or give them to their children (n=469)

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

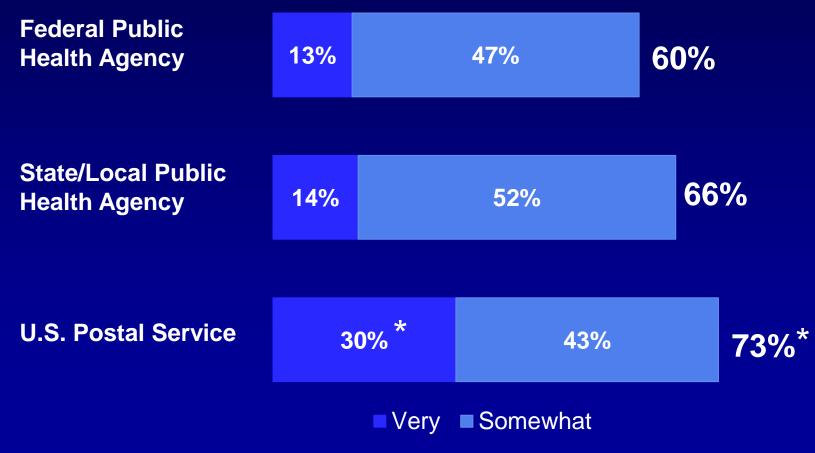
Public Confidence in Ability of U.S. Postal Service to Deliver Antibiotic Pills to the Public

% of adults saying...



Comparing Public Confidence in Organizations' Abilities to Deliver Antibiotic Pills to the Public

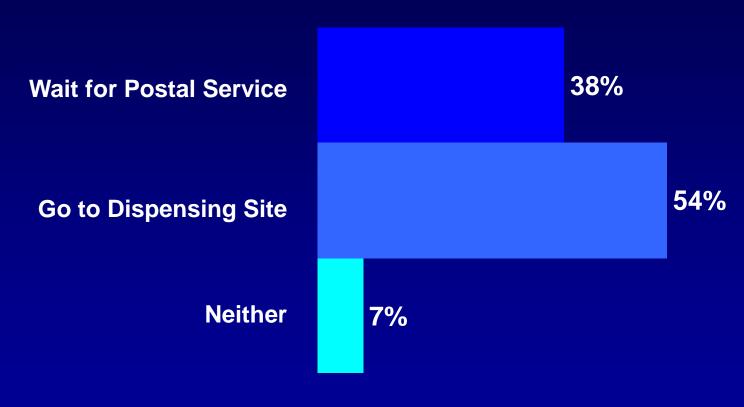
% of adults saying confident



^{*}Statistically significantly greater than federal and state/local agencies

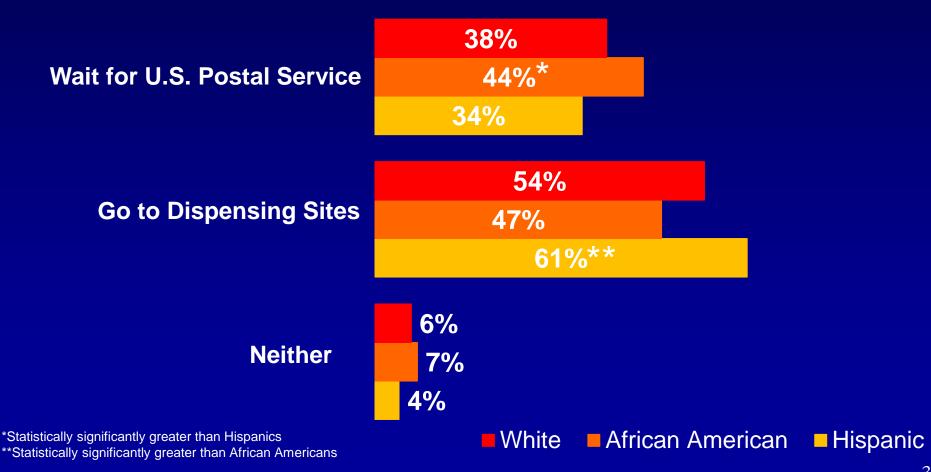
Public Plan for Getting Pills: Wait for U.S. Postal Service or Go to Dispensing Site?

% of adults saying they would ...



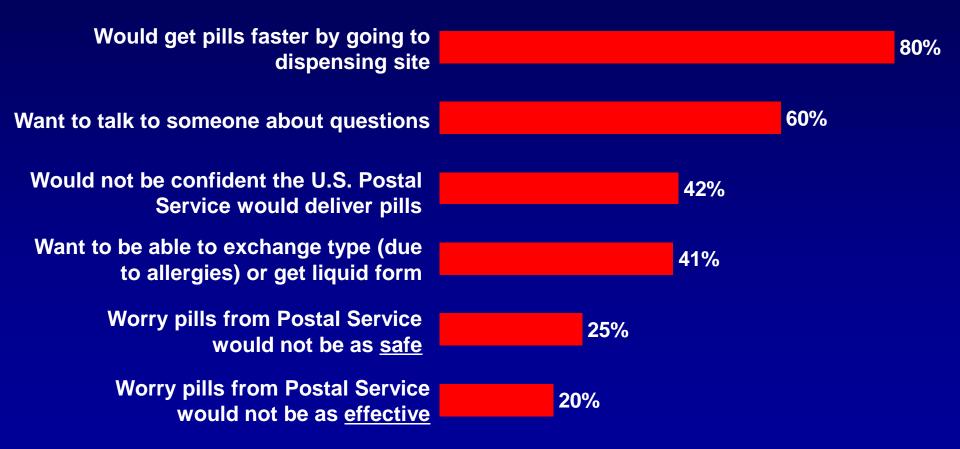
Public Plan for Getting Pills: Wait for U.S. Postal Service or Go to Dispensing Site? Racial/Ethnic Differences

% of adults in each group saying they would...



Major Reasons People Say They Would Be Less Likely to Wait for U.S. Postal Service

% of adults who would not wait for U.S. Postal Service saying each issue was a "major reason"

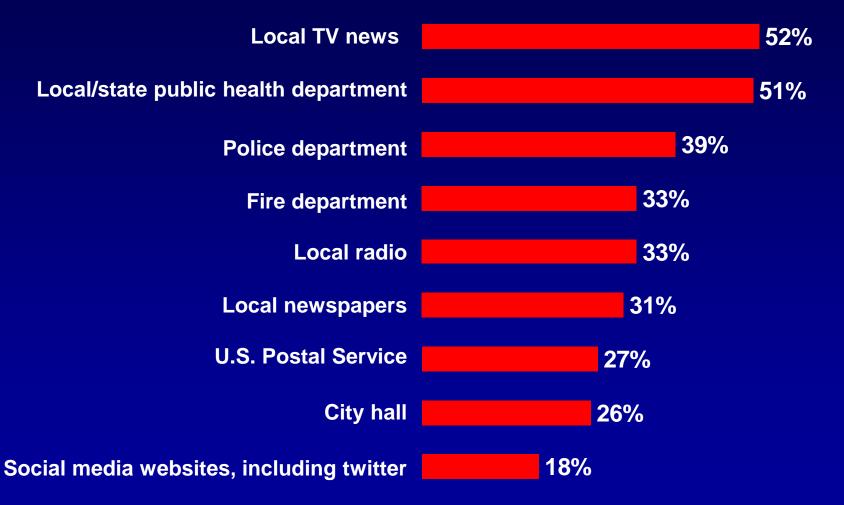


^{*}Among adults who would not wait for U.S. Postal Service (n=1021)

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?

Information Sources for Dispensing Site Logistics

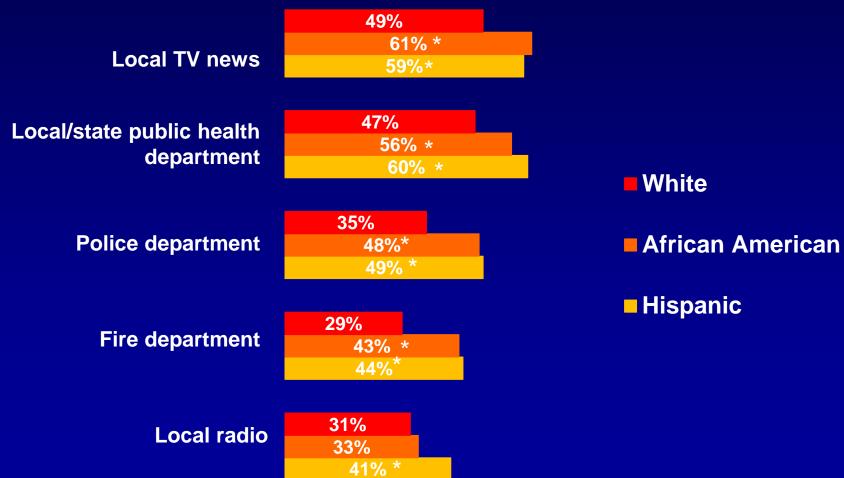
% of adults saying "very likely" to turn to source to learn more about the dispensing sites or the process of getting the antibiotic pills



Differences for local TV (increase 7pp) and fire (decrease 8 pp) since 2009 poll

Information Sources for Dispensing Site Logistics: Racial/Ethnic Differences

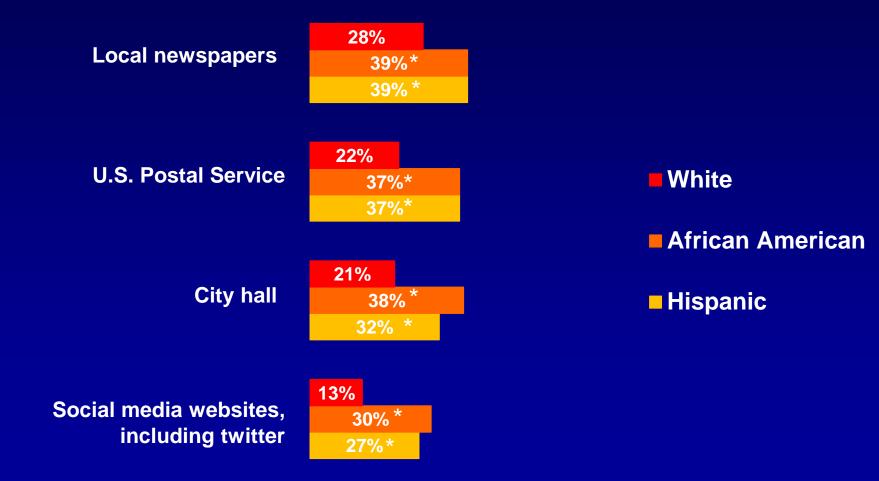
% of adults saying "very likely" to turn to source to learn more about the dispensing sites or the process of getting the antibiotic pills



^{*}Statistically significantly greater than whites

Information Sources for Dispensing Site Logistics: Racial/Ethnic Differences

% of adults saying "very likely" to turn to source to learn more about the dispensing sites or the process of getting the antibiotic pills

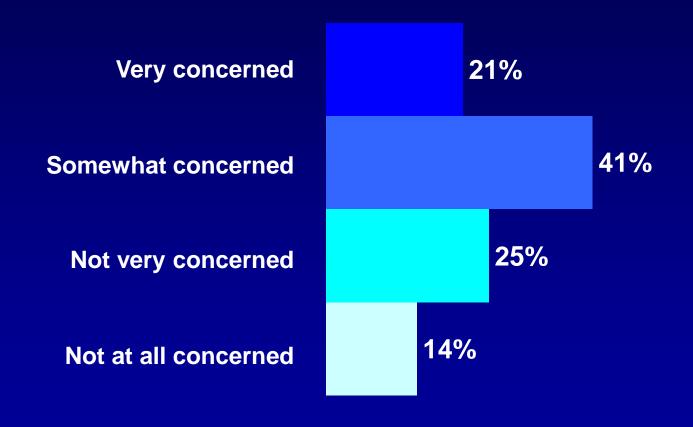


^{*}Statistically significantly greater than whites

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

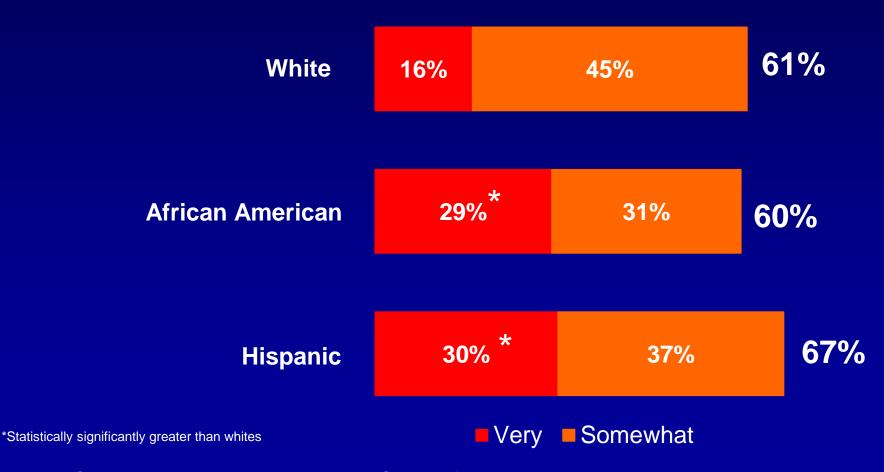
Public Concern that there will be a Terrorist Attack in the United States in the Next 12 Months

% of adults saying...



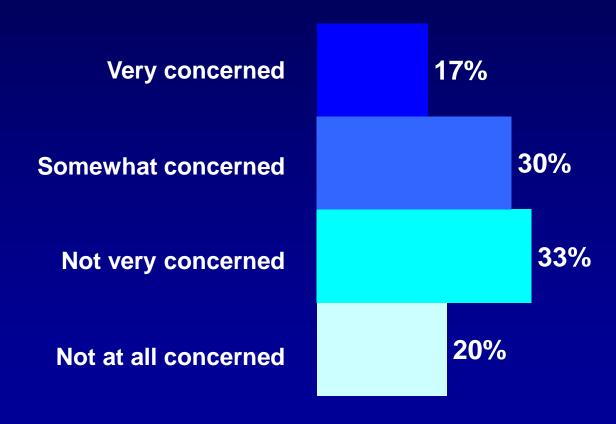
Public Concern that there will be a Terrorist Attack in the United States in the Next 12 Months: Racial/Ethnic Differences

% of adults in each group saying concerned

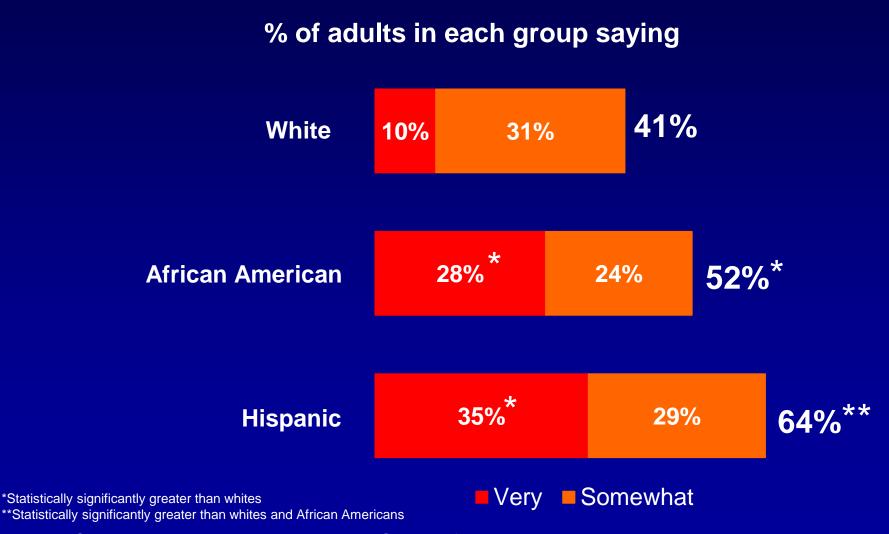


Public Concern that there will be an Attack that Involves Spreading Anthrax Purposefully in the Next 12 Months

% of adults saying...



Public Concern that there will be an Anthrax Attack in the United States in the Next 12 Months: Racial/Ethnic Differences



⁴⁹

Key Poll Findings: Overall Population

- Under this scenario, the majority of people would be worried about getting ill and would follow public health officials' recommendations to go pick up prophylactic antibiotic pills at dispensing sites
- Even if dispensing by U.S. Postal Service was available, the majority of people would nonetheless go to dispensing sites
 - Major reasons for their decision include a belief that they could get the pills more quickly this way and their desire to ask questions of a live person
- Key challenges for public health officials:
 - More than half of people say they are familiar with term "inhalation anthrax," but roughly 40% of those people also believe it is contagious or don't know if it is
 - Top major reasons for reluctance among those who are somewhat likely/unlikely to go get pills include worries about:
 - -Limited crowd control
 - -Safety/side effects of pills
 - -Exposure to anthrax on building, transportation, or other people at site
 - -Getting anthrax from other sick people at site
- Three-quarter of adults who would pick up pills would also take them right away; however, others would hold onto pills largely because they would wait to see if they developed symptoms or were truly exposed to anthrax

Key Poll Findings: A Focus on Racial/Ethnic Minorities

- People in racial/ethnic minorities felt themselves to be more at risk for serious illness or death in this scenario than did whites, and were more concerned about the possibility of a near-future anthrax attack in the United States
- African Americans had more confidence in the federal and state/local public health agencies to do their part in delivering antibiotic pills to the public and were more likely than whites to go to PODs
- Among people who were less likely to go to PODs, racial/ethnic minorities were more likely to cite several factors 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
 - worry that there would not be a sufficient supply of pills
- 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
- Both African Americans and Hispanics were more likely to say they would turn to all sources for information about logistics

Appendix I: Scenario Stages Read to Respondents and Methods Summary

Scenario Stage 1: Confirmed Cases of Anthrax Caused by Release of Anthrax in Unknown Location

Suppose for a minute you saw or read in the news that a number of people in your city or town have become ill with what investigators believe is "inhalation anthrax," which is a kind of anthrax people get through the nose or mouth. All of these people are seriously ill, and some have died. Investigators suspect that there has been a bioterrorist attack in your city or town. They believe that many more people have been exposed to the anthrax, but they do not yet know exactly where in the city or town the anthrax was released.

Scenario Stage 2: Prophylactic Treatment

Suppose that you saw or read in the news that people who were truly exposed to anthrax would be very likely to get seriously ill or even die if they did not receive medicine within 48 hours, and that your local or state public health agency was making free medicine available to everyone in your city or town who wanted it.

Everyone would be offered a 10-day supply of commonly-used antibiotic pills. Public health officials would say that the antibiotic pills would have few side effects for most people; most commonly, these would be mild stomach illnesses. Public health officials would also inform people that there would be special medicine available for anyone who had allergies to antibiotics and that there would be medicine available in the right amount for children.

Scenario Stage 3: Role of Federal and Local or State Public Health Agencies in Delivering Antibiotic Pills

Now imagine that public health officials stated that there will be enough of these antibiotics available for everyone in your town or city. In order to get the antibiotic pills to everyone within 48 hours, federal public health agencies would deliver the medication to your local or state public health agency. Your local or state public health agency would then set up dispensing sites in places like schools, community centers or shopping centers around your city or town.

Scenario Stage 4: Public Health Officials Set Up Dispensing Sites to Distribute First Round of Antibiotic Pills

Public health officials would say that there would be a dispensing site no more than 20 minutes away from where you live or work, and it would be open 24 hours a day. They would also say that everyone would be able to pick up medicine for people in their household or family.

Scenario Stage 5A: Alternative Dispensing Using U.S. Postal Service

In the situation I described, there might be another way for people to get at least the first doses of the antibiotic pills. In certain areas, the federal government could deliver antibiotic pills to the U.S. Postal Service, who would have postal workers deliver antibiotic pills directly to households within 48 hours.

The postal worker who delivered pills to each household might not be the regular delivery person for that household because only postal workers who volunteered would be part of the process. Postal workers would be accompanied by local law enforcement officials.

Scenario Stage 5B: Alternative Dispensing Using U.S. Postal Service

If this were to happen each household would receive a single bottle of antibiotics with enough pills for the first 48 hours. When the household needed more pills, a household member would be able to go to a dispensing site to get more. If that person had already been taking the pills when they went to the dispensing site, they would have some protection against getting sick.

The postal service would deliver the same kind of antibiotic pills to every household within the pre-selected areas. There would be no exchanges for people who had allergies to one kind of antibiotic, and there would be no liquid version available for children or adults with difficulty swallowing. People with need for these things would have to go to a dispensing site.

Each bottle would come with a single, double-sided page of information about the pills. More information would be available on official websites.