# Table of Contents

About This Toolkit .......................................................... 2  
Overarching Goals ........................................................... 3  
The Current State: Media Coverage ......................................... 4  
The Opportunity: Stories to Share .......................................... 6  
The Strategy: Media Outreach ............................................... 9  

MAKING THE CASE: CRAFTING YOUR MESSAGE ......................... 10  
  Message Platform ............................................................ 11  
  Sample Q&A Talking Points ................................................ 12  
  Setting the Stage ............................................................. 15  
  Using Data to Tell Your Story .............................................. 16  
  What Makes a Story “News”? ............................................... 17  

GETTING YOUR STORY PLACED: MEDIA VENUES AND TOOLS ............ 18  
  Identifying the Right Media Venue ....................................... 19  
  Media Tools .................................................................. 21  

TEMPLATES AND SAMPLES: MEDIA TOOLS ................................. 22  
  Template: Media Release .................................................. 23  
  Sample: Media Release ..................................................... 24  
  Template: Media Advisory ................................................ 25  
  Sample: Media Advisory .................................................... 26  
  Template: Opinion Editorial .............................................. 27  
  Sample: Opinion Editorial ................................................ 28  
  Example: Opinion Editorial from Washington ......................... 29  

EXAMPLES: COMMUNICATING ABOUT INFECTIOUS DISEASE INFRASTRUCTURE ......... 32  
  Commentary: It’s a Matter of Life and Death .......................... 33  
  Commentary: Section 317 Immunization Program: Protecting a National Asset ......... 35  
  Article: Americans Depend on a Strong CDC .......................... 38  
  Article: Outbreak Investigation: Meningitis .............................. 40  
  Testimony: Pharmacy Compounding—Implications of the 2012 Meningitis Outbreak .... 42  

Sources ........................................................................... 51
About This Toolkit

State health agencies’ ability to quickly detect and respond to infectious diseases depends on having a strong infrastructure in place. Infrastructure is the foundation for planning, delivering, and evaluating public health. State health agencies require effective and efficient systems for preventing infectious disease morbidity and mortality, ensuring control of outbreaks and vigilance against diminishing diseases, and preventing and responding to reemerging and emerging infectious disease threats. The Association of State and Territorial Health Officials (ASTHO) is undertaking efforts to increase awareness of and support for state health agencies’ critical infectious disease (ID) infrastructure programs. As part of those efforts, ASTHO contracted with Porter Novelli (a communications and social marketing firm) to develop this toolkit.

The need for education and engagement on this issue is strong. Putting a story forward in the media, however, is not easy. Advancing the issue’s visibility will require reaching policy leaders, public health advocates, partners, and the general public. This toolkit was developed by Porter Novelli, in partnership with ASTHO, to assist you in telling your story. The focus is on reaching the media as a channel to educate and engage all of the key audiences. It includes information on how the media works and the advantages of each type of media outlet, the tools used to share stories with journalists, templates and samples to give you a jump start, and a message platform for some sample language. Through this toolkit and ongoing support, ASTHO seeks to provide states with tools and resources to tell their stories and demonstrate the value of investing in ID infrastructure and improving their capacity to detect, control, and prevent the spread of infectious disease.

Each state has its own rules and protocol for reaching out to key leaders, especially elected officials and the media. The first point of contact prior to reaching out to anyone, including reporters or bloggers, is your organization’s public information officer (PIO). With the help of this toolkit, you will be prepared to discuss with your PIO what you hope to achieve, which media types may be best, and the story that you want to tell. Your PIO can assist you in tailoring the outreach and messages so they fit your organization’s guidelines and voice.
Overarching Goals

The ultimate goal is to prevent or eliminate infectious disease. Although daunting, it could be achieved with increased awareness of and support for ID infrastructure. Important enhancements in the public health environment that will help achieve this goal include:

- Assurance that public health departments have the resources (sufficient workforce and systems capacity) they need to maintain and improve the health of the public.
- Increases in the general public’s understanding that the ability to prevent, control, and respond to infectious disease is a critical public health function.

Communication alone cannot achieve these goals, but it can build awareness and education, which are instrumental first steps in changing the environment. ID infrastructure is a complex issue, and when working best it is invisible. However, effective communication can shed light on the important work health departments are doing to keep the population safe.

Working with your organization’s PIO, you can promote awareness and education of your state or community’s ID infrastructure. Ideally, communications can help:

- Increase understanding and support among key decision makers.
- Drive demand in communities for a strong public health infrastructure.

Through well-crafted messages and relevant data demonstrating impact, state health agencies can increase awareness and appreciation of ID infrastructure.
The Current State: Media Coverage

Porter Novelli conducted an environmental scan to assess what stories featuring ID infrastructure have appeared in the media and found that the majority of ID coverage appears in trade publications with a policy or industry focus. The topics that get the most attention are bio-defense and preparedness.

INDUSTRY COVERAGE

Articles appeared in publications such as *Life Science Weekly*, *National Defense*, and *BioWorld Today*, outlets that cater to people who care about public health and ID infrastructure. The articles were written for audiences that are informed and professionally invested in the subject in question: healthcare-associated infections (HAIs), antimicrobial stewardship, and antibiotic distribution strategies. For example, *Modern Healthcare* reported on the CDC tracking system for HAIs. *Life Science Weekly* covered the dedication of a new influenza vaccine plant that can create vaccines using animal cells rather than eggs.

POLICY COVERAGE

A look at sites dedicated to public policy showed public health funding and policy, particularly the Affordable Care Act (ACA), were topics of interest:

- The award of ACA funds was included in multiple publications.
- *Politics and Government Week* shared recommendations from an Institute of Medicine report recommending state, local, and tribal health officials work with the federal government on strategies for distributing antibiotics in the event of an anthrax attack.
CONSUMER COVERAGE

Although there was coverage of infrastructure issues in industry and policy media, consumer media paid little attention to these issues. However, there were a few examples of consumer media covering ID infrastructure. In 2011, the Washington Post online provided excerpts from a chat with Laurie Garrett and W. Ian Lipkin, experts in infectious disease and science consultants for the film “Contagion.”

Garrett and Lipkin discussed the process of ensuring “Contagion” was scientifically accurate. They discussed concerns for both naturally occurring and synthetic diseases. They also touched on the importance of ID infrastructure.

“In the end, I think ‘preparedness’ is about infrastructure—what is in place, how well people are trained.”

LAURIE GARRETT, COUNCIL ON FOREIGN RELATIONS

More recently, NPR ran a story on the prevalence of tuberculosis (TB) in Alaska and the infrastructure that the health department developed to respond to local challenges.

Alaska’s unique geography and weather heighten the opportunity for TB to spread, but it isn’t at the top of doctors’ minds as they see patients. The NPR story showed a component of ID infrastructure in a way that is understandable for those outside the public health community.

“If we see a small, isolated village—usually, they are accessible only by air or snow machine in the winter—and we have a case or two of active tuberculosis identified in that village, we can be quite confident that there’s transmission going on.”

KAREN MARTINEK, STATE PUBLIC HEALTH NURSE
The Opportunity: Stories to Share

The ability for state health agencies to quickly detect and respond to infectious diseases depends on having a strong infrastructure in place. Although no one can predict when and where the next outbreak will occur, we can support a prepared public health workforce with the capacity to react quickly and limit disease spread. During an outbreak, time is of the essence. With adequate capacity, state health agencies can be ready to quickly identify the cause of disease and communicate information about what steps to take. A timely and complete public health response can save lives, avert illness, and restrain the growth of healthcare costs as well as costs to respond and investigate cases. Therefore, building epidemiology, laboratory, and health information system capacity is essential to respond to infectious disease threats.

Infectious disease infrastructure is complex, and when working best it is invisible. Effective communication can shed light on the important work health departments are doing to keep the population safe. State health agencies play a critical role in protecting people from infectious disease—providing care, linking individuals to appropriate care, conducting surveillance, and analyzing new data from providers to detect trends which can then lead to increased educational campaigns and efforts to reach underserved populations. Demonstrating the value of ID infrastructure can help ensure that public health departments have the resources they need to maintain and improve the health of the public.

ASTHO has developed materials (including Fact Sheet: Infectious Disease Infrastructure and Outbreak Investigation and Response Hill Day Paper, both available at www.astho.org) to increase awareness of state health agencies’ critical ID infrastructure programs.

The environmental scan’s findings indicate that there is an opportunity to increase coverage of ID infrastructure in media stories and contribute to greater understanding and appreciation of the issue—either through standalone pieces highlighting the important day-to-day work done to keep communities safe or language in articles about outbreaks that describes the critical role of public health.

Recently, ASTHO conducted interviews with state public health leadership regarding ID infrastructure, including both broad capacity to detect and monitor infectious disease threats and targeted efforts to control specific diseases. Through these interviews ASTHO staff collected specific examples and stories of the importance of general infectious disease infrastructure. The information collected, summarized and quoted below, shows the possibilities for media outreach.

“The ID infrastructure in terms of field staff is really threadbare, and outbreaks of new situations uncover this ... The health department has resources to handle the background level of infectious diseases. Imported outbreaks on top of it puncture holes in the infrastructure net.”

In the interviews, state leaders reflected a desire to best serve their population. Their ability to maintain ID infrastructure is largely determined by federal funding. There are currently two fundamental programs, funded by CDC, that help support states’ abilities to respond to infectious disease issues. The Epidemiology and Laboratory Capacity (ELC) Program provides funding to all states to address these issues, while the Emerging Infections Programs (EIP) provide funding to select states for surveillance, prevention, and control of emerging infectious diseases.

Despite best efforts to promote the needs of the infrastructure, the capacity within each state interviewed to monitor, identify, prevent, and control ID outbreaks is suboptimal. Multiple states mentioned being just one funding cut, staffing change, or outbreak away from being beyond their capacity.
INFRASTRUCTURE AND CAPACITY
Overall, states have infrastructure and capacity adequate to cover the most essential activities, including disease surveillance, laboratory detection, and epidemiologic investigation. However, the states interviewed indicated that the safety net is thin or nonexistent for unexpected events or outbreaks.

Although core needs have some level of consistency across states, some states face unique challenges. Given the strong dependence on federal funding, activities are often prioritized according to funding availability, rather than local needs. For example, some states require a significant focus on tribal populations or refugee groups while others may be challenged by rural geography or foodborne illness.

EPIDEMIOLOGY AND LABORATORY CAPACITY (ELC) FUNDING
Federal investment in epidemiology and laboratory capacity through the ELC program is a vital contributor to ID infrastructure, allowing states to initiate activities they wouldn’t otherwise be able to support. Thus, it has made a demonstrated impact on population health by enabling states to conduct more surveillance, turn around lab tests faster, and respond to outbreaks in time to prevent the spread of disease. For example, electronic data entry through ELC-funded data systems during foodborne outbreaks can speed up the identification of the source and allow officials to take action to remove it from the food supply.

Although ELC funding contributes to important work with an impact on health, decreases in funding limit the abilities of multiple states, forcing them to be more reactive than proactive. During key informant interviews, states easily identified additional projects they would undertake with additional funding.

HEALTHCARE-ASSOCIATED INFECTIONS
In the states interviewed, these programs were driven by federal funding. States developed new surveillance infrastructure and engaged in outreach and collaboration with healthcare facilities to address these preventable infections. The future of the federal funding source for HAI is uncertain.

HEPATITIS
Hepatitis funding is used for outreach and education, and in some cases, for testing and linkage to care. Hepatitis activities are coordinated with other programs to maximize resources and have the greatest impact on the population. All states interviewed recognize a need in their states for additional hepatitis work, but currently lack capacity to address all identified needs.

“There is very little funding for hep C testing. Some comes from the HIV prevention grant. The department is seeing outbreaks across the state.”

TUBERCULOSIS
As a result of years of work, most states interviewed appeared to have strong approaches to TB identification and management, which have contributed to the decline of this disease. However, decreasing resources and reduced capacity limit their ability to adopt new technologies and best practices, negatively affecting states’ ability to limit the spread of TB.

“There is funding uncertainty for TB, and there are glaring gaps in current funding.”
ANTIMICROBIAL RESISTANCE

None of the states interviewed had an extensive antimicrobial resistance program, though all recognized it as a need.

STATE-BY-STATE DIFFERENCES

All states commented on challenges specific to their population, including infectious disease among immigrant communities, measles outbreaks, and foodborne illnesses. With so much of their work determined by availability of funding and capacity, some of the states that were interviewed feel they are being reactive rather than proactive in addressing priority issues for their state.

ASTHO has additional materials which provide more detail about these topics.

- Fact Sheet: Infectious Disease Infrastructure
- Fact Sheet: Immunization Infrastructure
- Fact Sheet: Epidemiology and Laboratory Capacity for Infectious Diseases Program
- Fact Sheet: Emerging Infections Programs (EIP)
- Fact Sheet: Tuberculosis
- Toolkit: Eliminating Healthcare-Associated Infections: State Policy Options

To access these materials please visit www.astho.org/Programs/Infectious-Disease.
The Strategy: Media Outreach

State health agencies have a wealth of information to share about the importance and value of ID infrastructure. Putting a story forward is not easy, though, as the gap in media coverage demonstrates. This toolkit contains suggestions for developing a compelling message about ID infrastructure in your state, and mechanisms to use the media as a channel to deliver that message to key audiences. Media can serve as an important channel audience to educate and engage others (e.g., policy leaders or general public) about the importance of ID infrastructure.

<table>
<thead>
<tr>
<th>AUDIENCE</th>
<th>DESIRED OUTCOME</th>
<th>WHAT YOU CAN DO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media</td>
<td>• Increased interest in public health ID infrastructure.</td>
<td>• Develop positive relationships with media professionals so they are calling</td>
</tr>
<tr>
<td></td>
<td>• Increased coverage.</td>
<td>to get the public health perspective on stories that could promote ID</td>
</tr>
<tr>
<td></td>
<td></td>
<td>infrastructure needs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Encourage positive tone in articles related to public health coverage.</td>
</tr>
<tr>
<td>Policymakers</td>
<td>Increased understanding of the complexity of integrating public health's key</td>
<td></td>
</tr>
<tr>
<td></td>
<td>issues:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Staffing.</td>
<td>• Staffing.</td>
</tr>
<tr>
<td></td>
<td>• Budget.</td>
<td>• Budget.</td>
</tr>
<tr>
<td></td>
<td>• Prevention impact.</td>
<td>• Prevention impact.</td>
</tr>
<tr>
<td></td>
<td>• Disease outbreak function.</td>
<td>• Disease outbreak function.</td>
</tr>
<tr>
<td>Public</td>
<td>Heightened awareness of public health ID infrastructure's importance.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Commitment to advocacy for sustaining/enhancing ID infrastructure.</td>
<td></td>
</tr>
<tr>
<td>External</td>
<td>Increased awareness of the importance of infrastructure.</td>
<td></td>
</tr>
<tr>
<td>stakeholders</td>
<td>• Provide grants related to public health ID infrastructure issues.</td>
<td></td>
</tr>
<tr>
<td>with public</td>
<td>• Integrate ID infrastructure into current grant requirements and money given.</td>
<td></td>
</tr>
<tr>
<td>health</td>
<td>• Package ID infrastructure with related issues that are generating interest</td>
<td></td>
</tr>
<tr>
<td>interests</td>
<td>in the public (e.g., antimicrobial resistance, flesh-eating bacteria).</td>
<td></td>
</tr>
</tbody>
</table>
MAKING THE CASE: CRAFTING YOUR MESSAGE
**Message Platform**

Engaging the public in conversations about ID infrastructure requires messages that are compelling and resonant. This is challenging, however, because the behind-the-scenes components of ID infrastructure are complex, and the term “infectious disease infrastructure” sounds like jargon.

To craft a compelling message about the importance and value of ID infrastructure, it will be helpful to utilize a message platform, which summarizes what you want the public to know about the issue. As a basic rule, be sure that you always include a descriptive message about the issue that includes local information and your role in addressing it, provide a solution in terms of a call to action, and let the target audience know where they can go for more information. In addition, the message platform helps ensure the same information is communicated about the issue, regardless of communicator (spokesperson, organizational lead, volunteer, etc.) or communication channel (newspaper, press conference, community event, etc).

The following message platform consists of a memorable core message to define the topic, key message pillars of important points to convey, and supporting points to provide data and pertinent examples to make the topic more relevant. Although these attempt to make infrastructure more relatable, it may also be helpful to use similar terms such as “prevention,” “protections,” or “safeguards” to get your point across.

**Core message:**

*ID infrastructure is the system that protects the public from infectious diseases, which are among the leading causes of death and illness in the United States.*

<table>
<thead>
<tr>
<th>KEY MESSAGE PILLAR</th>
<th>KEY MESSAGE PILLAR</th>
<th>KEY MESSAGE PILLAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infectious disease poses both a human threat of illness and death and an economic threat of lost productivity and increased healthcare costs.</td>
<td>ID infrastructure provides the systems to prevent infectious disease, control outbreaks, and prepare for and respond to emerging and re-emerging threats.</td>
<td>The demands on ID infrastructure continue to grow, while funding and support are increasingly precarious.</td>
</tr>
</tbody>
</table>

**SUPPORTING POINTS**

<table>
<thead>
<tr>
<th>SUPPORTING POINTS</th>
<th>SUPPORTING POINTS</th>
<th>SUPPORTING POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>People engage in daily activities that could put them at risk for contracting an infectious disease, such as eating at a restaurant or drinking water.</td>
<td>Federal, state, and local agencies and private organizations (including nonprofits and healthcare providers) collaborate to keep the country healthy and reduce infectious disease’s impact in the United States.</td>
<td>ID infrastructure is often invisible, especially when it is working best; as a result, it is often overlooked.</td>
</tr>
<tr>
<td>CDC estimates each year roughly 1 in 6 Americans, or 48 million people, get sick from foodborne diseases, 128,000 are hospitalized, and 3,000 die.</td>
<td>The three components of ID infrastructure are a capable and qualified workforce, up-to-date data and information systems, and agencies (public and private) to assess and respond to threats.</td>
<td>State and local health departments must address a wide array of infectious disease issues and outbreaks ranging in size from a school to a statewide epidemic, often simultaneously.</td>
</tr>
</tbody>
</table>

*Continued*
### SUPPORTING POINTS

| The nation has successfully addressed many infectious diseases through immunizations and improving the delivery of public services (e.g., water purification, waste removal, and donated blood screenings), but threats remain with re-emerging and new diseases. |
| ID infrastructure includes many activities, such as ongoing monitoring and data collection, information sharing, public education and engagement, research, response planning, and training and preparedness. |
| ID infrastructure is funded through several sources, including federal, state and local tax dollars and public/private partnerships. As governments face significant budget deficits, they are cutting back on programs, including infectious disease monitoring and support. |
| In 2005, the Congressional Budget Office estimated a flu pandemic could cause a serious recession in the U.S. economy, with immediate costs of $675 billion.³ |
| Infectious disease programs covered by ID infrastructure include pandemic and bioterror preparedness, immunization management and uptake, healthcare-associated infections, foodborne illness, acute respiratory diseases, tuberculosis, viral hepatitis, HIV, and sexually transmitted diseases, among others. |
| The Affordable Care Act will allow for more people to be screened for infectious disease and linked to care and treatment, but this will put increased demands on the infrastructure (e.g., case follow-up, partner notification). |
| An estimated 42,000 adults and 300 children die each year from vaccine-preventable diseases. Acute respiratory infections, such as influenza and pneumonia, result in 56,000 deaths annually.³ |
| Public health threats enter our country daily as travelers come from nations with low immunization rates and serious epidemics that have long been addressed here. Our public health community assesses these threats and acts to ensure they remain things of the past. |
| The cost to fully immunize one child in the public sector has risen nearly 500 percent in the past 10 years due to the availability of new vaccines, yet funding has been nearly flat. |

---

### Sample Q&A Talking Points

When communicating with the media, it might be helpful to prepare sample Q&As in advance to develop memorable sound bites or share with media contacts for reference as they develop articles. Below are sample Q&As using the above message platform as a guide, as well as examples of communicating the importance of ID infrastructure from published media articles.

#### What does “infectious disease infrastructure” mean?

- Infectious disease (ID) infrastructure is the systems in place to guard the nation against emerging and known infectious diseases, which are among the leading causes of death and illness in the United States.
- This infrastructure enables communities to prepare for, identify, and respond to current and future threats.

> “[Marion] Kainer, the director of health care associated infections for the Tennessee Department of Health, started investigating the day she got [an email describing a single case of illness in the state] and hasn’t stopped since. She camped out in her office for three weeks, leading a team of state workers as they traced the source of what would become a national outbreak of fungal meningitis.”

> “MENINGITIS OUTBREAK: TN HEALTH WORKERS SENSED DANGER,” *THE TENNESSEAN*⁴
Why is ID infrastructure important?

- People engage in activities every day that could put them at risk for contracting an infectious disease, such as eating at a restaurant or drinking water.

- ID infrastructure provides the systems to prevent infectious disease, control outbreaks and prepare for and respond to emerging and re-emerging threats. For example, here in [enter state/community] this infrastructure enables us to identify outbreaks early and take steps to prevent the spread of disease.

  “Indiana’s outbreak has prompted state health officials to issue near-daily updates on the number of cases and places visited by those infected in hopes of stopping the disease’s spread.”
  “IND. MEASLES OUTBREAK ILLUSTRATES DISEASE RISK,” THE WASHINGTON TIMES

  “A joint investigation [conducted by the New Hampshire Division of Public Health and Exeter Hospital] revealed that those infected [with hepatitis C] were all patients who received care in the hospital’s cardiac catheterization lab and its recovery unit, which was shut down on May 25 after officials determined that the area may have been the location where the infections occurred.”
  “OFFICIALS CONFIRM HEPATITIS C OUTBREAK AT EXETER HOSPITAL,” NEW HAMPSHIRE UNION LEADER

- We know that CDC estimates each year roughly 1 in 6 Americans gets sick from foodborne illnesses, 128,000 are hospitalized, and 3,000 die. In [insert state/community], that number is even more poignant. [Insert local statistic.] ID infrastructure enables health officials to identify outbreaks early and take steps to prevent the spread of disease. Without ID infrastructure, these numbers would be higher; with strong systems in place, they could be even lower.

Why should I support enhancing our ID infrastructure?

- Infectious disease poses both a human threat of illness and death and an economic threat of lost productivity and increased healthcare costs. In fact, in [insert state/community], [insert local data point on economic burden/cost]. Shoring up our ID infrastructure can reduce these costs significantly by working to prevent outbreaks from occurring or containing them quickly with effective systems in place.

  “The technology’s spread [electronic medical records] is helping ‘officials faced with events of public health significance to know sooner, act faster and manage better,’ said Dr. Seth Foldy, a senior adviser to the Centers for Disease Control and Prevention.”
  “FAST ACCESS TO RECORDS HELPS FIGHT EPIDEMICS,” THE NEW YORK TIMES

- Infectious disease infrastructure is funded through several sources, including federal, state, and local tax dollars as well as private/public partnerships. As governments everywhere face steep budget deficits, they are cutting back on programs, including infectious disease monitoring and support. These deficits put the residents of [insert state/community] at increased risk for contracting a serious disease.

  “‘People expect the fire department and the police department to be there 24 hours a day,’ [the Association of State and Territorial Health Officials Executive Director Paul] Jarris said. ‘What they don’t realize is their health department is there 24 hours a day, seven days a week.’”
  “MENINGITIS OUTBREAK: TN HEALTH WORKERS SENSED DANGER,” THE TENNESSEAN
• We have successfully addressed many infectious diseases through immunizations and improving things like water purification, waste removal, and blood screenings, but threats remain with re-emerging and new diseases. Supporting our ID infrastructure will help ensure that we don’t see diseases like polio or measles reappear in any significant way.

“[Florida Surgeon General and Secretary of Health] John Armstrong said 99 percent of Jacksonville’s homeless have been screened for tuberculosis. ‘The Florida Department of Health continues to make strong progress toward completing the tuberculosis cluster investigation in Duval County,’ Armstrong said. ‘I must emphasize that the people of Jacksonville and Duval County remain safe.’”

“HEALTH DEPARTMENT SAYS ONLY ONE ACTIVE TB CASE FOUND AFTER ALMOST ALL HOMELESS TESTED,” THE FLORIDA TIMES-UNION®

We have current systems in place, so why do we need to change them?

• We do have many systems in place already that are working well, but the demands on ID infrastructure continue to grow, while funding and support are increasingly precarious. For example, in [insert state/community], [insert local data point illustrating need].

“The response to the [Washington state whooping cough] epidemic has been hampered by the recession, which has left state and local health departments on the front lines of defense weakened by years of sustained budget cuts.”

“CUTBACKS HURT A STATE’S RESPONSE TO WHOOPING COUGH,” NEW YORK TIMES®

• ID infrastructure is often invisible, especially when it is working best. Unfortunately, this also means it is often overlooked. Many people probably are not aware that in [insert state/community] we have procedures and systems in place to [insert local information].

“As an infectious disease doctor and an epidemiologist, I am confident that the fungal meningitis outbreak will be contained and eliminated—yet unquestionably, other infections and potential outbreaks are lurking. We must use this opportunity to recognize the success of our public health infrastructure, which saves countless lives every day. Ironically, we recognize this only when an outbreak occurs.”

“MENINGITIS OUTBREAK SHOWS IMPORTANCE OF STRONG PUBLIC HEALTH INFRASTRUCTURE,” THE COMMERCIAL APPEAL®
Setting the Stage

When communicating about ID infrastructure, there are key, standard pieces of information that will help you build a compelling story. For example, data on the incidence, prevalence, and economic costs of infectious diseases can be used to demonstrate the impact of these diseases. To demonstrate the value, effectiveness, and impact of a strong infectious disease infrastructure, you may use data that show declines in ID rates, and then you can share how those reductions are linked to public health activities. Below are some questions to help you identify key facts for the ID infrastructure stories you want to tell.

In your state/community ...

- What does the current ID infrastructure look like (e.g., current offerings, local policy positions, urgent needs, etc.)?
- How much of your state budget is currently allocated for ID infrastructure?
- What additional support is needed to increase effectiveness?
- What is the cost to respond to a disease outbreak (e.g., H1N1 outbreak economic burden)?
- What impact do outbreaks have on healthcare facilities/professionals (e.g., time spent away from chronic patients, impact on prevention research, etc.)?
- What are the current rates of screenings and immunizations? How could these rates be impacted with additional ID support?
- What are the current rates of conditions that are preventable with strong ID infrastructure (e.g., foodborne diseases)?
- How are healthcare providers engaged with public health ID infrastructure?
- What role does ID infrastructure play in vaccine supply management (e.g., shortages, excess supplies, etc.)?

*Note: Before participating in any interviews or speaking opportunities, it may be helpful to conduct a quick media scan to identify any current events or issues that you may receive inquiries about, such as local or national outbreaks, new guidelines or recommendations, or recently released data on disease prevalence or impact.*
Using Data to Tell Your Story

Local data will make your story more compelling and relevant to local media. Below are national examples from CDC of the kinds of data you might choose to include.

- **Foodborne Pathogens:** Each year in the United States, foodborne pathogens cause an estimated 48 million illnesses, 128,000 hospitalizations, and 3,000 deaths. Although approximately 1,000 U.S. foodborne outbreaks are reported annually, most foodborne illnesses do not occur as part of recognized outbreaks. In the United States, *Salmonella* infections sicken an estimated 1 million persons and result in an estimated $365 million in direct medical costs each year.

- **HAIs:** At any given time, about 1 in 20 patients have an infection while receiving healthcare treatment in U.S. hospitals. HAIs in hospitals result in up to $33 billion in excess medical costs every year.

- **Hepatitis:** Chronic infections with hepatitis B virus (HBV) and hepatitis C virus (HCV) are a silent epidemic in the United States, with approximately 0.8-1.4 million persons affected by HBV and an estimated 2.7-3.9 million persons by HCV.

- **HIV:** CDC estimates that approximately 1.2 million persons in the United States were living with HIV at the end of 2008, and each year more than 56,000 are newly infected. It is estimated that HIV prevention efforts in the United States averted 350,000 infections from 1991-2006, saving $125 billion in medical care costs.

- **Tuberculosis:** In 2011, a total of 10,521 new tuberculosis cases were reported in the United States. The case rate among foreign-born persons (17.2 cases per 100,000) was approximately 11.5 times higher than among U.S. born persons (1.5 cases per 100,000).

- **Outbreaks:** Recent national examples include an outbreak of West Nile Virus; high levels of pertussis in Washington, Vermont, Minnesota, Wisconsin, and Colorado; hantavirus in Yosemite National Park; and various foodborne infections such as those linked to cantaloupes, peanut butter, and sprouts. There have also been outbreaks of infections associated with the delivery of healthcare, such as hepatitis associated with drug diversion and meningitis associated with contaminated product from a compounding pharmacy.

Visit [www.cdc.gov](http://www.cdc.gov) and [www.cdc.gov/outbreaks](http://www.cdc.gov/outbreaks) for the latest information.
# What Makes a Story “News”?

Before approaching your local media—or even your PIO—you need to consider the lens reporters use to determine what stories they cover. The criteria below can serve as a quick reference to help you develop a compelling story or determine creative ways to integrate relevant points from the message platform into a larger news story.

<table>
<thead>
<tr>
<th><strong>IS IT NEW OR BREAKING NEWS?</strong></th>
<th>ID infrastructure, like many public health stories, is what reporters call “evergreen”—the issue will be as important tomorrow as it is today. Finding something new to say, or sharing an angle that makes it not only important but urgent, will be critical. For example, a national story breaking about an infectious disease may be an opportunity to talk about precautions being taken in your area and the need for the community to invest in ensuring that these tools remain available.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IS IT COMMON?</strong></td>
<td>Reporters write about topics that interest or seem relevant to their readers, so they are drawn to stories that have a wide appeal and will capture as many readers as possible. They also love data that tell a story. Public health advocates are finding success in translating their data to social math, making data easier to grasp by relating it to things that people already understand. For example: More than 200,000 people are hospitalized for influenza-related complications each year. To really highlight the impact, an alternative way to present the data could be: The number of people hospitalized from flu each year could fill Yankee Stadium for four games.</td>
</tr>
<tr>
<td><strong>IS IT LOCAL?</strong></td>
<td>Even when building on a national story, reporters write about what affects the readers in their publication’s jurisdiction. You need to tell a story that is relevant to the reporter’s audience. In some cases, local may be at the state level, particularly if the outlet covers the state or a major metropolitan area. In others, local may be the county or city boundaries, particularly if the outlet is dedicated to a neighborhood or small community. If you are reaching out in response to a national story, ask yourself: How does this issue affect people in my community? What will people in this community care most about?</td>
</tr>
<tr>
<td><strong>IS IT PERSONAL?</strong></td>
<td>Making the story feel personal may be one of the most significant challenges in talking about infectious disease infrastructure. Nothing in those three words emanates warmth or personal connection. However, one of the best ways to capture a reporter’s attention is to take the story of data, systems, and reporting and make it human; one way to accomplish this is to use a single person or family’s experience to illustrate your message. Media thrives on telling the human story readers relate to, so it is important to tell both the public/population health story and how that affects individuals.</td>
</tr>
</tbody>
</table>
GETTING YOUR STORY PLACED: MEDIA VENUES & TOOLS
# Identifying the Right Media Venue

Once you know what makes your story compelling, the next step is determining the best place to tell that story. What makes for a good Facebook update is not the same as what makes great television. You should spend some time identifying the best outlets to tell your story and reach your audiences.

## Traditional Media Venues

<table>
<thead>
<tr>
<th>CONSIDERATIONS</th>
<th>IDEAL FOR ...</th>
<th>EXAMPLES</th>
</tr>
</thead>
</table>
| **TELEVISION** | • Watched by all audiences and has the highest impact; it is also the most difficult to secure.  
• Stories are short and it is difficult to get in-depth coverage.  
• Great for visual stories and in-studio interviews. | • Providing the latest information on an infectious disease issue that the community is experiencing (e.g., influenza season, measles outbreak).  
• Offering a local perspective and update to an ID outbreak in another city or region.  
• Catchy lists, such as a top 10 ways your community undertakes planning, preparation, and prevention of likely disasters. | • Texas Health Officials Study West Nile Outbreak.¹¹ |
| **RADIO** | • Great for breaking, timely news with a human-interest element or community focus; radio programmers are also appreciative of in-studio interview offers.  
• Research has shown that radio is especially effective for certain groups, including some ethnic groups. | • Talk radio appearances for a more in-depth local perspective or update to an ID outbreak (e.g., specific actions a health department is taking to address an outbreak, such as holding a vaccination clinic or notifying possible contacts of cases).  
• Talk radio appearances for timely events, such as release of a groundbreaking report or new recommendations (e.g., screening of all baby boomers for hepatitis C). | • CDC Recommends Hepatitis C Testing for All Boomers.¹²  
• San Francisco Thwarts HIV with Wide Testing, Universal Treatment.¹³  
• Meningitis from Tainted Drugs Puts Patients, Doctors in Quandary.¹⁴  
• Chlamydia Infections Are on the Rise.¹⁵ |
| **NEWSPAPERS** | • Appropriate for in-depth stories, to alert communities about events and activities, and to highlight a community story.  
• Print does a better job of handling complex stories or issues involving ideas, concepts, and intangibles.  
• Reaches opinion leaders and the general public. | • In-depth stories linking to local perspective or update to an ID outbreak, such as predisposing factors for the outbreak and what is needed to address them in the future (e.g., higher vaccination rates to prevent pertussis, stricter oversight to promote injection safety).  
• Opinion editorials or letters to the editor on the need for investments in ID infrastructure. | • Meningitis Outbreak: TN Health Workers Sensed Danger.⁴  
• Meningitis Outbreak Shows Importance of Strong Public Health Infrastructure.¹⁰  
• Cutbacks Hurt a State’s Response to Whooping Cough.⁹  
• Ind. Measles Outbreak Illustrates Disease Risk.⁵  
• Health Department Says Only One Active TB Case Found After Almost All Homeless Tested.⁶  
• Fast Access to Records Helps Fight Epidemics.⁷ |
| **MAGAZINES** | • Focus and format vary based on each magazine type. Trade publications will concentrate on studies, outcomes, and professional information, but most magazines run features and human interest stories.  
• Lead time can be 3-6 months. | • Feature stories on people who have had an infectious disease (e.g., influenza or tuberculosis), how the system responded, and why continuing to invest in surveillance is so important. | • How to Stop the Superbugs.¹⁶ |

¹¹ Texas Health Officials Study West Nile Outbreak.¹¹  
¹² CDC Recommends Hepatitis C Testing for All Boomers.¹²  
¹³ San Francisco Thwarts HIV with Wide Testing, Universal Treatment.¹³  
¹⁴ Meningitis from Tainted Drugs Puts Patients, Doctors in Quandary.¹⁴  
¹⁵ Chlamydia Infections Are on the Rise.¹⁵  
⁴ Meningitis Outbreak: TN Health Workers Sensed Danger.⁴  
⁵ Meningitis Outbreak Shows Importance of Strong Public Health Infrastructure.¹⁰  
⁶ Cutbacks Hurt a State’s Response to Whooping Cough.⁹  
⁷ Ind. Measles Outbreak Illustrates Disease Risk.⁵  
⁸ Health Department Says Only One Active TB Case Found After Almost All Homeless Tested.⁶  
⁹ Fast Access to Records Helps Fight Epidemics.⁷
# ONLINE AND SOCIAL MEDIA VENUES

Nearly every traditional media outlet also has an online companion; television networks and print outlets provide much of their content on their websites. Additionally, the Internet and mobile phones have their own suite of outlets, which also provide outreach opportunities. With social media, you create and publish your own content. Although the popularity of sites may change, it is important to have a fundamental understanding of each digital medium’s strengths and limitations as you consider how best to tell your story.

<table>
<thead>
<tr>
<th>MEDIUM</th>
<th>CONSIDERATIONS</th>
<th>IDEAL FOR ...</th>
<th>EXAMPLES</th>
</tr>
</thead>
</table>
| **Facebook (Social sharing sites)** | • People “like” you; it does not require a lot for people to engage.  
• Very personal; people only “like” and share information that is in line with their values and personality.  
• Content has to be more than webpage on Facebook—it is interactive, not one-way communication.  
• Great for promoting events. | • Aiming events; relating current events to your cause (such as Hepatitis Awareness Month, National HIV Testing Day, Get Smart About Antibiotics Week, or National Influenza Vaccination Week).  
• Announcing release of reports or new data on infectious diseases; sharing quick facts in compelling questions or social math.  
• Sharing tips to prevent spread of disease (e.g., getting a flu shot, washing your hands, covering your cough).  
• Sharing information on an outbreak in the community. | • CDC Facebook Page.  
• CDC Works For You 24-7.  
• CDC 24/7 Saving Lives, Protecting People.  
• CDC 24-7.  
• CDC Director Frieden Twitter Page.  
• ASTHO Twitter Page.  
• CDC Twitter Page.  
• Public Health Matters Blog.  
• Health Protection Perspectives Blog.  
• Safe Healthcare.  
• New Public Health. |
| **Twitter (Short messaging sites)** | • These provide a forum for quick, simple messaging; sharing complex issues in short messages can be a challenge.  
• Retweeting (sharing information without making any changes to the content) is easy and part of the Twitter culture.  
• Managing Twitter and propelling a community of followers is labor intensive, with recommended daily (and up to 3 times a day) posting. | • Sharing data, promoting releases of new reports both within your community and across the globe.  
• Sharing a “fact of the week” about ID infrastructure and its impact in your community.  
• Following and retweeting other active ID advocates.  
• Creating hashtags for associated conferences so attendees and spectators can share conference experiences and links to relevant research. | • Behind the Scenes: Emergency Operations.  
• CDC 24/7 Saving Lives, Protecting People.  
• CDC 24-7.  
• CDC Director Frieden Twitter Page.  
• ASTHO Twitter Page.  
• CDC Twitter Page.  |
| **YouTube (Video sharing sites)** | • YouTube is the second largest search engine online.  
• Perfect for telling visual and longer stories (aim for 2 minutes or less).  
• More expensive to develop than written messaging. | • Showing public health in action or a “behind the scenes” look.  
• Interviews with experts detailing their professional experiences.  
• Telling the story of an outbreak over time, and the steps needed to mitigate it. | • Behind the Scenes: Emergency Operations.  
• CDC 24/7 Saving Lives, Protecting People.  
• CDC 24-7.  
• CDC Director Frieden Twitter Page.  
• CDC Works For You 24-7 Blog.  
• Public Health Matters Blog.  
• Health Protection Perspectives Blog.  
• Safe Healthcare.  
• New Public Health.  |
| **Blogs** | • Forum for expert and peer voices to share ideas and stories.  
• Have to present a point of view, not just data.  
• Time-intensive with multiple posts each week.  
• Guest posts for pre-existing blogs are a less labor-intensive option. | • Forum for content similar to opinion editorials submitted to newspapers; challenge will be in generating enough content to create and sustain a blog.  
• Input from experts (e.g., “5 Questions”) or personal experiences with disease issues. | • CDC Works For You 24-7 Blog.  
• Public Health Matters Blog.  
• Health Protection Perspectives Blog.  
• Safe Healthcare.  
• New Public Health.  |
## Media Tools

Media outreach involves using a set of tools designed to share your messages with journalists in hopes that they will publish your content. The following provides information on the different media tools.

<table>
<thead>
<tr>
<th>MEDIA RELEASE</th>
<th>Typically one page, no more than two</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• A written statement distributed to the media, intended to gain media interest to write a story.</td>
</tr>
<tr>
<td></td>
<td>• An important note in writing the release: The goal is to get a reporter to pick up the phone and call for more information. Make sure you have included enough information to cover the issue, in case the reporter does not call, but don’t try to answer every question a reporter might have.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MATTE RELEASE</th>
<th>Typically one page, no more than two</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• A release that is written for the media to run with minor modifications. A matte release should be written as a complete article. Matte releases are primarily used to reach out to smaller outlets, with fewer reporters and less time to develop their own in-depth stories.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MEDIA ADVISORY</th>
<th>One page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• An announcement of an upcoming event for media to promote or attend. Advisories are like invitations, announcing the date and location of an event. They are used to reach out to community calendars, alerting the community and the media to an upcoming event.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LETTERS TO THE EDITOR</th>
<th>400 words or less</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Believe it or not, the letters to the editor are the MOST READ part of the newspaper. So, if you see a story you don’t like, one that you do, or you want to “build” on a story you read, respond with a letter. Many people will get your message.</td>
</tr>
<tr>
<td></td>
<td>• Be clear on:</td>
</tr>
<tr>
<td></td>
<td>- Who the author is and list the author’s hometown.</td>
</tr>
<tr>
<td></td>
<td>- What you want people to know about this issue.</td>
</tr>
<tr>
<td></td>
<td>- How they have addressed or need to address the issue locally.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OPINION EDITORIALS (OP-EDS)</th>
<th>500–800 words</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• While the editorial page tells readers what the paper thinks about something, op-eds give you that same opportunity. You don’t have to wait for the paper to run a relevant story to send one; however, it does make sense to tie your op-ed to a recent event, if possible.</td>
</tr>
<tr>
<td></td>
<td>• Send op-eds in to one paper at a time—sending the same piece to more than one media outlet can ruin your chances of securing any placement.</td>
</tr>
</tbody>
</table>
TEMPLATES AND SAMPLES: MEDIA TOOLS
TEMPLATE: MEDIA RELEASE

For Immediate Release

Contact: [Insert name]
[Insert title]
[Insert phone]
[Insert e-mail]

Headline [A phrase that will grab the reader’s attention; it should be action-oriented]

Subhead [A secondary detail about the story that makes the story seem more relevant to the reader]

City, State. (Release Date) – Lead paragraph

The lead paragraph should be short and concise; in a nutshell, what is the crux of the story? Limit it to one to three short sentences and be sure to include the who, what, when, and where elements. A good question to ask yourself: “If a person only reads these few sentences, what do I want them to know?”

Support paragraph #1: Additional information

This paragraph provides the why—the details that add perspective to the story. It should be about three to four sentences in length, and it is where you want to include any action items for the target audience (e.g., write your representative, get a disease screening, etc.).

Support paragraph #2: Leadership quote

It is a good idea to include a quote from a public health official or visible person in a leadership role within the state public health department. The quote should support your position and provide some personal insight or perspective the individual has on the specific infrastructure issue and its importance/relevance.

Support paragraph #3: Other relevant information

This paragraph should be used to include any additional information that may be relevant to the topic. For example, it could cover further information on partnerships, outcomes of policies, local statistics, or other background information that is important to note, but not necessary to highlight in the main paragraphs.

About (organization): Boilerplate information

It is customary to add basic, boilerplate information about the organizations involved in the release content. List your organization first, followed by any others in descending order of relevance. Most organizations have a standard paragraph that is included in all press releases. It should include basic information such as who you are, what you do, your mission, and your website. Each organization’s paragraph should be no longer than three to four sentences.

###
SAMPLE: MEDIA RELEASE

For Immediate Release

Contact: Jane Doe
PR Manager
(404) 995-4500
janedoe@state.a.us

Health Foundation Invests in the Future Health of State A

Health Department Receives $25,000 for Infectious Disease Infrastructure Development

City, State A (July 26, 2012) – Today, the County Z Public Health Department announced that it has received a grant for $25,000 from the Health Foundation to support enhancements to the county’s infectious disease infrastructure. The grant will enable the department to offer additional screenings and educational outreach to communities across the county.

Beginning Oct. 1, the grant provides resources for enhanced outreach in local communities to educate residents on the importance of immunization. This outreach will include developing and distributing educational materials at community health fairs, school health programs, and community clinics.

“We are thrilled to have the opportunity to expand our immunization outreach efforts to County Z,” said Northwest Health District Director John Smith, MD. “The generosity of the Health Foundation will not only allow local health officials to reach more people with critical preventive health services, but it is a significant investment in helping keep our local communities healthy long into the future.”

The grant is part of the Health Foundation’s “Protecting Our Health” program dedicated to enhancing the infectious disease infrastructure in communities across the country. Grants are awarded to communities with increasing prevalence rates of targeted infectious diseases, like whooping cough and measles, which were previously thought to be virtually eliminated. State A’s North Central Health District has seen an increase of at least 10 percent in prevalence rates of these diseases over the past five years. To find out where immunizations are offered in your area, visit www.northcentralhealthdistrict.com and click on “Protecting Our Health.”

About State A’s North Central Health District

The goal of the North Central Health District is optimal health for all residents. We strive to obtain this goal by preventing disease, promoting health, and protecting communities against health threats. As part of the Department of Community Health, we serve 13 counties in central State A. For more information, visit www.northcentralhealthdistrict.com.

###

This sample is fictitious and not a real media release.
TEMPLATE: MEDIA ADVISORY

**MEDIA ADVISORY**

**WHAT:** Name/short description of the event.

**WHY:** Explanation of the purpose behind the event and key activities.

**WHO:** Notable leaders in attendance.

**WHEN:** Date and time.

**WHERE:** Location address and parking instructions (if applicable).

**CONTACT:** Event press contact name, title, phone number (including cell for day-of needs), and e-mail address.

**INTERVIEW OPPORTUNITIES:**
- List any individuals available onsite for interview opportunities with media.
- It is a good idea to list their qualifications/role as well.

**VISUAL OPPORTUNITIES:**
Be sure to note if there will be any photography or video opportunities for media onsite.
SAMPLE: MEDIA ADVISORY

MEDIA ADVISORY

WHAT: Health Advocates Rally on the Steps of the Capitol Building.

WHY: Public health advocates from across State B will gather on the steps of the State B Capitol building to encourage policymakers to strengthen the state’s infectious disease infrastructure by voting for H.B. 1000, which would create a statewide registry of infectious disease outbreaks and provide increased funding for local public health clinics.

WHO: John Smith, Executive Director, State B for a Healthy Future. Sally Brown, Executive Director, Voices for State B’s Children.

WHEN: July 26, 2012, 3 p.m.

WHERE: State B Capitol Building
200 Capitol Avenue
City, State B 30334

CONTACT: Jane Doe
PR Manager, State B for a Healthy Future
(404) 995-4000, ext. 123
(770) 555-6767 (cell)
janedoe@healthyfuture.org

INTERVIEW OPPORTUNITIES:
In addition to Mr. Smith and Ms. Brown noted above, the below experts/champions are available for interview:

- Joe Black, Immunization Registry Coordinator, State B University.
- Sarah Stone, mother of three children, who lost a son to whooping cough in 2009.

VISUAL OPPORTUNITIES:
Photo and video opportunities will be available onsite and upon request.

This sample is fictitious and not a real media advisory.
TEMPLATE: OPINION EDITORIAL

Headline [A phrase/few words that grab the reader’s attention and draw them in]

By [Insert author]
[Insert author’s title/credentials]

Lead sentence:
This sentence should be the dramatic hook that grabs the reader’s attention and makes them want to read more. It typically ties in with the headline and is a bit sensational (for impact). The lead sentence should set the stage for the author’s viewpoint on an important issue in the community.

Supporting information:
Write about 400-600 words (three to five short paragraphs) building your case/supporting your viewpoint. Sometimes publications will publish more than 800 words, but it is rare, so it is best to keep op-eds short.

Consider things like why the issue is important, counterpoints to any of the issue’s public opponents’ arguments, impact on the local community, policy/taxpayer implications, etc. Op-eds should be an impassioned case for a specific viewpoint on an issue related to the local community.

About the author:
This section should include one to two sentences about the op-ed author and his/her credentials.
SAMPLE: OPINION EDITORIAL

Public Health System: Our Silent Protector Is Grossly Under-Supported

By Sarah Jones, Executive Director of XYZ Foundation
Chair of the Board for State C Public Policy Foundation

Did you drink water that was clean and safe today? When was the last time you ate a meal out and didn’t get sick from food contamination? Have your kids grown up free from previously deadly diseases like polio and measles? Thanks to State C’s public health network, diseases are prevented and communities are protected every day, creating a healthier state for all of us to live, work, and play in.

This protection is being severely threatened by looming budget cuts at the Capitol. Yes, it’s true. State C—like the rest of the nation—is in an economic crunch when it comes to our state budget. There are more bills than income (so to speak) and everyone has a thought about where budget cuts should or shouldn’t come from. But one thing is certain: public health should not be that place.

Everyone in State C, regardless of where they live or how much money they make, should have access to critical disease prevention services provided only by our state’s public health network. Over the past five years, state funding for public health has been cut by nearly $50 million, increasing reliance on federal funding and putting many critical decisions out of our hands. We have to turn the tide.

We need the support of community partners, organizations, business, and citizens to help shore up the future of our public health networks. Partnerships can be developed to not only offer vaccinations for little to no cost, but also to more quickly track infectious diseases outbreaks so we can determine/eliminate the sources and treat people who become ill. We need the resources to be able to take action to protect all residents of State C—even before they need protecting.

We are so fortunate to have a network of dedicated, innovative public health professionals who are committed to advancing the health of all of us in State C. To continue and enhance this network, we need to increase partnerships and support for public health infrastructure across the state. The future of our health depends on it. Won’t you join me in saying, “Our state’s ability to protect our health is worth protecting”?

About the author:
Sarah Jones is the executive director of XYZ Foundation and chair of the board for the State C Public Policy Foundation. She served as public health advisor to Governors John James and Kathy Long following a 20-year career in local public health.

This sample is fictitious and not a real opinion editorial.
EXAMPLE: OPINION EDITORIAL FROM WASHINGTON

[placed in the Everett Herald, June 10, 2012]

Public Health System Protects Us, But It Needs Support

By Mary C. Selecky
Secretary, Washington Department of Health

Washington’s public health network is an investment that pays off every day. State and local public health agencies are always working to make sure water is safe to drink, food is safe to eat, and our communities are protected from infectious diseases. This strong partnership begins locally, where public health experts work with private and public partners to help people stay safe and healthy.

Everyone deserves consistent health protections, regardless of where they live or how much money they make. That’s the premise behind the public health network. Funding for public health relies on partnership—local, state and federal tax-supported funds and local fees for things like septic systems and restaurant permits.

Although local health agencies get funding through local taxes and fees for such work, the full cost of services is paid for in large part through funding from state and federal sources. Unfortunately, tax-supported funding remains extremely tight and public support for government services is declining.

In the past five years, state funding for public health has been cut by more than $50 million a year. This has increased our reliance on federal funding, taking decision-making further from home and leaving us at greater risk of cuts that can jeopardize our public health services. And it’s just as challenging on the local level. Hundreds of local public health jobs have been cut in recent years, forcing local health agencies to drop services and turn some folks away.

For 14 years, I’ve been honored to serve our state’s public health system as the secretary of health. I’m proud of our accomplishments in the face of some very challenging circumstances. Each day brings new opportunities to protect and improve health. Over the years I’ve seen many times when Washington’s public health system came together quickly, assessed an urgent need, agreed on a response, and took decisive action.

In fact, we’re currently going through that. In April I announced that whooping cough had reached epidemic levels across the state. We’ve seen more than 2,000 cases already this year, affecting 31 of Washington’s 39 counties. Combating this outbreak is a top priority across the state. The epidemic began as early as last May, when the Snohomish Health District sounded the alarm about a worrying increase in whooping cough cases being reported.

Snohomish County usually has about 30 total cases a year; already this year they’ve reported more than 300. Outbreaks like this use a lot of resources, and local and state public health agencies are already operating on reduced staff and budgets.

At times like this we need the support of our community partners, and people and organizations are indeed coming together to help. Pharmacies and health care providers are offering free or low-cost vaccine supplied through a partnership between the state and vaccine manufacturers; schools and daycares are sending out alerts developed by public health; private contributions paid for a notice to be sent to every residence in Snohomish County; disease investigators are identifying and contacting people who were exposed; and doctors continue testing and treating people who are ill.
And my agency, the state Department of Health, is coordinating a statewide investigation, immunization outreach, and communication. Gov. Chris Gregoire supports these efforts, and has provided money from her emergency fund to help us get the word out about how serious this illness is, and what people can do to fight it. Combined, this work can and does save lives. And although the epidemic continues, we’re making headway; more people are getting vaccinated and cases are being more quickly identified and treated, which means they’ll expose fewer people to the illness.

Another example of effective partnership took place recently in Penn Cove on Whidbey Island. On May 15 our state health shellfish program quickly closed the area to harvest after a big fishing boat burned and sank, spreading a fuel sheen over the water. The closure made sure that our food supply was protected. Federal, state and local health and environmental protection groups established a joint response, working together to minimize the harmful impact on environmental and human health.

Pollution in water can end up in our shellfish; so, we routinely test water quality and the shellfish that are headed for our dinner tables, restaurants, and to other states and countries where our shellfish are shipped. Washington’s shores contain some of the most productive shellfish-growing areas in the world, and our joint effort to protect and restore these sensitive areas contributes to a healthy food supply and economy.

Our state public health work goes well beyond responding to events or outbreaks. We protect health and safety in many ways, including making sure that our state’s licensed health care providers maintain the highest quality care and behavior. We license and provide oversight for thousands of health professionals providing services from brain surgeons to podiatrists, nurses to massage therapists and counselors.

Most of these professionals display skill and dedication to patient care and safety; however, when something goes wrong, we take action. Just this year, we’ve identified people who were duping and endangering the public by masquerading as doctors, nutritionists and massage therapists. We take away the licenses of those who don’t provide high-quality health care and those who breach the trust of their relationship with patients. Protecting patient health and safety is a fundamental responsibility of the public health system.

Health care providers are a vital ally in protecting and improving community health, often serving as our eyes, ears and voice for health. They influence the health of individual people, which influences the health of the community. Health care providers often take a leadership role in community partnerships working to solve difficult health problems like obesity, tobacco and substance abuse, and access to care. Partnering among health professionals brings many benefits, including more efficient service delivery, advances in disease prevention, and a stronger public health network.

We don’t have to look too far to see the results of inadequate public health systems. In many developing countries, tuberculosis, polio, cholera and malaria continue to cause illness, disability and death—one in every three people in the world has now been infected with tuberculosis. Many popular European travel destinations have low immunization rates, and measles outbreaks are common. Travelers often bring these public health problems to our communities. Our public health network identifies incoming threats and takes action; hopefully, before these conditions spread to others in our communities.

Fast-spreading illnesses also originate close to home. We saw that in February when thousands of cheerleaders, coaches and spectators from teams across the state gathered in Everett for the state cheerleading championship. When these folks headed home, many developed severe diarrhea and vomiting. Sick people began calling their schools and local health agencies, who notified state health investigators.
We worked with the Snohomish Health District, event organizers and the facility. We contacted event attendees to tell them how to stop the illness from spreading, and to find things they had in common that could lead us to the source of the outbreak. The health district worked with the arena on sanitization procedures, and assessed the food and water supplies. More than 800 people filled out questionnaires and our state public health lab tested specimens from the ill.

Ultimately, norovirus—an organism commonly linked to intestinal diseases—was identified as the culprit. Within a few days the outbreak sickened at least 262 people from 15 counties in the state. Thanks to a quick, coordinated response the illness did not spread further into communities. Norovirus illness is not often serious, but other illnesses like E. coli and salmonella can be, and we’ve come to expect our public health system to be ready to respond to whatever the threat emerges.

Washington has a strong public health system, with innovative partnerships and approaches to advancing public health in our state. Our future effectiveness depends largely on organizations and professionals working in strong collaborative relationships, both public and private. It also depends on adequate funding for local and state public health agencies. It’s my hope and belief that our system and partnerships will strengthen and flourish in the coming years.

About the author:

Mary C. Selecky has been secretary of the Washington State Department of Health since March 1999, serving under Gov. Chris Gregoire and former Gov. Gary Locke. Prior to working for the state, Selecky served for 20 years as administrator of the Northeast Tri-County Health District in Colville.
EXAMPLES: COMMUNICATING ABOUT INFECTIOUS DISEASE INFRASTRUCTURE
Commentary: It’s a Matter of Life and Death

By Paul E. Jarris, MD, MBA, and Kathy Talkington, MPAff, Association of State and Territorial Health Officials
March 1, 2013
Institute of Medicine of the National Academies

Support for core public health capacity is diminishing; outbreaks of microbial threats are not. In 2012 there were a number of high-profile threats (see the box on the right) that demanded public health intervention to protect the public. It is well understood that the role of a physician in responding to patients during these outbreaks can save lives one at a time. The impact of a well-trained, well-equipped public health system can multiply that benefit exponentially through prevention, early detection, and response to microbial threats. That impact, however, depends on a strong public health foundation.

State health agencies’ ability to quickly detect and respond to infectious diseases depends on having strong capabilities, as outlined in the recent Institute of Medicine (IOM) report entitled For the Public’s Health: Investing in a Healthier Future (2012). These core capacities, sometimes referred to as the “public health infrastructure,” are essential for planning, delivering, and evaluating public health. State health agencies require effective and efficient systems for preventing infectious disease morbidity and mortality, ensuring control of outbreaks and vigilance against existing diseases, and preventing and responding to emerging and reemerging infectious disease threats.

Since 2008, survey results from the Association of State and Territorial Health Officials show continuing erosion of this important core capacity. Eighty-seven percent of state health agencies have reported budget cuts, 91 percent have experienced job losses, and 100 percent have implemented cost-saving measures. At the federal level, public health experienced an 8 percent cut in 2010. These cuts translate to limited ability to respond, as illustrated by the example below:

The response to the [Washington State whooping cough] epidemic has been hampered by the recession, which has left state and local health departments on the front lines of defense weakened by years of sustained budget cuts. (Johnson, 2012)

Washington State reported epidemic levels of pertussis in 2012, with a total case report of 4,870.

The 2012 West Nile virus outbreak saw record numbers of cases since first being detected in the United States in 1999. There were 5,890 reported cases of West Nile virus, including 243 deaths, across 49 states in 2012. Yet, federal funding for West Nile virus and other arboviral diseases has been drastically cut, from nearly $35 million in 2002 to less than $10 million in 2012—in many cases leaving it up to cash-strapped localities to fend for themselves. For example, town officials in Cooper Canyon,
Texas, worry there may be mosquitoes carrying West Nile virus in town, but limited resources are forcing them to request outside help, which has yet to arrive (Harden, 2012).

Although states try their best to prepare for outbreaks of pertussis or West Nile virus, they never could have predicted the meningitis outbreak of 2012, when an investigation sparked by the Tennessee Department of Health revealed cases of meningitis associated with steroid injections. When evidence indicated a link to a product from the New England Compounding Center, the product was recalled. Taking prompt action got the tainted product off shelves, and for patients who had already been injected with the product, health departments and providers worked together to inform and care for them. The impact of this single episode was 707 cases and 47 deaths. The herculean response to the meningitis outbreak was done in addition to dealing with foodborne out-breaks, emergence of new strains of swine flu in the Midwest, and outbreaks of health-care-associated infections. During an outbreak, time is of the essence to save lives and protect health. With adequate capacity, such as that outlined in the 2012 IOM report, state health agencies can stand ready to quickly identify the cause of disease and communicate information about what steps to take. A timely and complete public health response can save lives, avert illness, and help restrain the growth of health care costs.

We cannot maintain a piecemeal public health infrastructure for infectious diseases—it takes a multi-faceted enterprise that has sustained funding and core capabilities to effectively detect and respond to the many microbial threats we anticipate and those we don’t. It’s a matter of life and death.

References*


*Reference list appears as it did in the original publication.
Commentary: Section 317 Immunization Program: Protecting a National Asset

By Paul Jarris, MD, MBA, and Virginia Dolen, MS
Public Health Reports, March-April 2013

The article, “Protecting the Public’s Health: Critical Functions of the Section 317 Immunization Program—A Report of the National Vaccine Advisory Committee,” describes the many critical components of the effective immunization infrastructure that Section 317 funding supports. The federal Section 317 Immunization Program, which disseminates grants to 64 states, cities, and territories, provides core funding for the nation’s immunization programs and services. In addition to the purchase of vaccines, Section 317 funding provides resources for the public health capacity that supports outbreak investigation and control, supports providers through education about vaccines and information on storage and handling, and monitors vaccine effectiveness. The Association of State and Territorial Health Officials (ASTHO) agrees with the report’s recommendation that the Section 317 Immunization Program should be sustained at adequate funding levels. Our national governmental public health enterprise—comprising federal, state, and local health agencies—must work together to maintain and strengthen the health and economic gains that result from a successful immunization program.

We cannot protect everyone from every disease, and although we have been very successful in protecting the U.S. population from vaccine-preventable diseases (VPDs), we need to remain vigilant and activated. A recent resurgence of pertussis demonstrates that these diseases do not go away and cannot be ignored. In fact, there continues to be room for improvement in the immunity of the public we serve. The network in place to sustain this valuable protection is complex and multifaceted. When someone receives a shot, years of work have enabled the transaction to occur. There has been extensive research to develop the vaccine; years of testing to ensure safety; ongoing monitoring of the vaccine once it is made widely available to the public; and provider training to ensure proper storage, handling, and administration of the vaccine. The successful immunization program in the United States is a model for effective public and private-sector collaborations, and this partnership must be maintained going forward to keep the public protected from these debilitating and costly diseases.

As mentioned in the National Vaccine Advisory Committee (NVAC) report in this issue of Public Health Reports, the foundation of this collaboration is a strong public health infrastructure at federal, state, and local levels that includes a highly trained immunization workforce, disease surveillance experts and systems, scientific support for developing immunization policies, systems for monitoring and assuring vaccine safety, and mechanisms to monitor vaccine coverage rates. Public health takes the lead role in ensuring that everyone has access to safe and effective vaccines. Immunization infrastructure is a foundational capacity that must be included in the minimum package of public health services provided to every community. A recent Institute of Medicine report, “For the Public’s Health: Investing in a Healthier Future,” recommends that the nation take steps to ensure that there is adequate funding and capacity for such foundational services that protect and improve the population’s health.

Thanks to our nation’s public health system and resources made available through the Section 317 Program, childhood immunization coverage rates are high in most parts of the U.S. In 2010, coverage levels of at least 90% were met for five out of seven recommended childhood vaccines. This high coverage rate has resulted in a more than 90% decline in once common VPDs, such as diphtheria, polio, and measles. Although levels of adult vaccination are not as high, new recommendations and initiatives are designed to ensure that more adults are protected from preventable illness. However, we need to transition the Section 317 Program carefully to increase the rates of adult vaccinations. We wish to continue to improve upon our childhood vaccination rates as we take steps to improve adult
vaccination. A balanced approach is necessary to make certain the safety net that is the Section 317 Immunization Program remains intact.

In addition to their positive impact on health, vaccines are one of the most cost-effective public health approaches to reducing health-care costs because they prevent disease before it occurs and spreads through our communities. For each birth cohort vaccinated against 13 diseases in accordance with the recommended immunization schedule, society saves $13.6 billion in direct health-care costs, 42,000 lives are saved, and 20 million cases of disease are prevented. However, to realize the savings in lives and costs, we need to continue investments in the nation’s immunization program.

ASTHO has followed the trend of shrinking state budgets since 2008, when we initiated a longitudinal study to investigate the impact of budget cuts on state and territorial public health agencies and the people they serve. Since July 2008, 87% of reporting state health agencies have experienced budget cuts, which impact their ability to respond to public health threats, and 31% have experienced cuts that directly impact their immunization programs. The ASTHO Budget Cuts Surveys’ findings show that state health agencies continue to experience budget cuts and job losses, resulting in the reduction or elimination of critical public health programs and services.

The effect of such budget cuts has been seen in Washington State, which recently experienced an epidemic of pertussis (also known as whooping cough). Washington State and its local health departments have addressed this epidemic through health-care provider education, public awareness efforts, a substantial increase in providing vaccinations (a 140% increase for adults), and increases in laboratory testing and case investigations. Health departments have struggled to find the staff capacity and resources to provide the increased level of services needed to fully address the cases, the highest number in decades, and maintain all the other day-to-day activities necessary to protect the public’s health. The New York Times reported that the “response to the epidemic has been hampered by the recession [and] years of sustained budget cuts.” Due to the need to limit efforts, there are missed opportunities for collecting rich epidemiologic data that may inform better responses in the future or provide evidence for changed vaccine recommendations. As more states across the country experience increased levels of VPDs, budget constraints may prevent public health from providing appropriate responses to control the surge of cases or address other health emergencies that arise concurrently.

In a time of expanding health insurance coverage, it is important to remember that insurance coverage does not ensure access, and access does not assure quality of care. Successful immunization requires much more behind-the-scenes work than providers purchasing and administering vaccines. There are fundamental activities conducted by public health professionals that are critical to the future of the nation’s immunization efforts even if the population is fully insured. Section 317 infrastructure funds are used to ensure that vaccines are accessible, safe, and effective. State and local health agencies conduct activities such as disease surveillance, and offer provider support, quality assurance, communications, outreach, and outbreak response. Furthermore, in some locations, public health agencies are essential community providers, as sufficient private capacity to vaccinate the population does not currently exist. Careful planning and investment must take place either to create a capacity for public health agencies to generate sufficient insurance revenue to support providing immunizations, or to transition direct immunization services to private providers. Measurement and monitoring of vaccination rates must take place during this time to avoid unintended consequences, such as children being turned away from schools or increased VPDs.

The entire public health enterprise—at the federal, state, and local levels—is involved in the response to outbreaks of VPDs, but much of the on-the-ground burden affects the local and state levels. For example, after an outbreak of measles affiliated with the 2012 Super Bowl, state health officials provided near-daily updates on the number of cases and places visited by those infected to stop the disease’s spread. When three cases of meningococcal disease were diagnosed in a small town in Oregon, the
state and county health agencies coordinated community vaccinations, immunizing more than 1,000 people. These jurisdictions can be heavily impacted by even a relatively small decrease in funding, especially as public health activities become increasingly integrated.

With lives and health at stake, we cannot afford to slip back on the progress we have made. Continued investment in immunization infrastructure will ensure that gains made by the introduction and continued use of vaccines will not be lost. The Centers for Disease Control and Prevention is providing transition funding in select program areas to a limited number of grantees, in part through the Prevention and Public Health Fund, to build capacity and strengthen the public health immunization infrastructure to be more effective in the changing health-care delivery environment. Funded activities will include enhancing immunization information systems, developing and implementing strategic plans for revenue generation in health department clinics, and supporting adult and school-located vaccination. Although this transition funding will help public health, sufficient and sustained funding is necessary to realize the full benefits that vaccines can provide.

The U.S. vaccine program has had a demonstrated impact on improving the population’s health. It is imperative that the infrastructure that supports the nation’s immunization program remains intact. The NVAC report in this issue articulates the significant role of public health infrastructure in the U.S. immunization program and the critical need to support Section 317 funding for these programs.

References

2. 42 U.S.C. § 247b(j)

Copyright Association of Schools of Public Health. Reproduced with permission. Originally published in Public Health Reports.

*Reference list appears as it did in the original publication.*
“It’s a matter of life and death,” so the saying goes. That statement sums up the work the Centers for Disease Control and Prevention staff carry out every day to protect the health of Americans and people around the world. Whether investigating hantavirus in Yosemite National Park, supporting emergency responses to hurricanes and floods, responding to Ebola outbreaks in Uganda or fighting the chronic illnesses that plague Americans, CDC is on the front lines.

As former CDC directors, we know what that job requires, even though we served under different administrations and under different circumstances. The current fungal meningitis outbreak affecting people in at least 19 states provides a case in point.

This is the outbreak tracked to steroids manufactured at a Massachusetts compounding pharmacy. The steroids were injected into the spines of patients who needed pain relief in many health care facilities. So far, about 510 people have developed noncontagious meningitis. Sadly, at least 36 people have died from these contaminated injections. But many more could have died without CDC’s surveillance, rapid response science and communications with health experts responsible for diagnosing and treating patients.

**Specifically, what has CDC done to help?**

First, CDC scientists worked with state and local public health leaders across the public health network CDC helps to support to identify the fungus that is causing most cases of meningitis. This was no easy task since the fungus is rare and was never before found in spinal fluid.

Then, CDC scientists established the best treatment options and shared them with health officials as well as more than 14,000 patients who received the potentially contaminated steroid injections. Amazingly, CDC and state and local health officials were able to contact nearly all of the patients exposed to potentially contaminated medications in less than 20 days from the time the outbreak was detected. In the meantime, CDC laboratory researchers tested samples taken from patients throughout the country to determine whether each patient was infected.

Despite this strong performance, one aspect of CDC’s response worries us.

To meet these urgent demands, CDC had to pull in more than 300 staff as well as countless other state and local personnel. The fungal meningitis outbreak is just one of many outbreaks that required a major CDC response so far this year. Multiple foodborne outbreaks, emergence of new strains of swine flu in the Midwest and cases of plague in Western states require CDC’s full attention. Add to that global health concerns such as a SARS-like virus tracked to the Middle East and ongoing avian influenza in Asia, both just a plane ride away from the United States. Events like these underscore the critical nature—and potential vulnerability—of CDC and the public health network it leads to protect our nation.

As doctors, scientists and former CDC directors, we know that we cannot afford to shortchange our frontline protection against these emerging and ongoing domestic and global health threats. And yet, the projected budget cuts throughout the government threaten to do just that—significantly curtail CDC’s ability to detect and rapidly respond to health crises wherever they occur. As funding priorities are debated and ultimately decided, we implore our elected officials to invest in CDC and strengthen its capacity to build and sustain the science, outbreak detection and response capability—and overall agility to protect our citizens, our businesses and our economy.
The role of government in a number of areas can be debated, but we believe there is consensus on the vital governmental role in preventing disease and working to mitigate the damage in situations such as the meningitis outbreak.

We served under presidents on both sides of the political aisle, so we know that ensuring CDC is well resourced is not a partisan issue. We need to be mindful that it is essential to ensuring the public’s health and our nation’s economic security.

*Former CDC Directors William H. Foege (1977-83); Julie Gerberding (2002-08); Jeffrey P. Koplan (1998-2002); James O. Mason (1983-89); William L. Roper (1990-93); and David Satcher (1993-98).*

Article: Outbreak Investigation: Meningitis

By CDC
 CDC website, October 23, 2012

One Case Sparks National Action

Imagine... A patient goes to the doctor for a routine steroid injection. A couple weeks later, the patient feels sick—headache, fever and suddenly uncomfortable in bright light. Within days, the patient is admitted to the local hospital's intensive care unit. Doctors discover that the patient has a life-threatening disease they've never treated before.

The medical team immediately calls the state health department to alert them of this rare illness. A short time later, public health is spurred into action, sparking a national investigation of tainted medication given to thousands of Americans.

No one ever knows when the next outbreak will hit. The keys to catching outbreaks fast are astute clinical teams, a strong state and federal public health system, and strong collaboration with a range of national and local organizations.

Current Fungal Meningitis Investigation

CDC and the Food and Drug Administration (FDA) are investigating fungal infections among patients who received epidural steroid injections (medication injected into the spine) with contaminated medication. CDC believes that approximately 14,000 patients may have been exposed to this medication. Most patients who have become sick have developed a rare type of meningitis, fungal meningitis, which is not contagious. As of October 22, 2012, a total of 297 cases, including 23 deaths and 3 peripheral joint infections, have been reported in 16 states. Patients who become sick can develop symptoms including fever, new or worsening headache, sensitivity to light, stiff neck, new weakness or numbness, slurred speech, and/or increased pain, redness, and swelling at the injection site.

The medication in question came from the New England Compounding Center (NECC) in Framingham, Massachusetts. NECC has stopped all production and initiated a recall of the manufactured lots of steroid medication in question, preservative-free methylprednisolone acetate (80mg/ml), and other products.

What's Making People Sick?

CDC and FDA recently connected the fungus found in patients with fungus found in unopened steroid vials. The fungus Exserohilum rostratum was present in unopened vials of a steroid medication called methylprednisolone acetate that was manufactured by NECC. This fungus has also been found in all but two of the patients with laboratory-confirmed fungal meningitis.

CDC's Role

Working closely with the FDA and state health departments, CDC is trying to better understand the nature of these fungal infections and how best to stop them. At the same time, experts at CDC are helping physicians understand how to approach and treat patients who may have been exposed (resources for physicians). Our labs are hard at work analyzing samples from states, and we have sent teams of epidemiologists into states affected by the outbreak.
Important Facts

Those people injected in joints only are not believed to be at risk for fungal meningitis, but could be at risk for joint infection.

The epidural steroid medication associated with this outbreak is not the same as the epidural injections given to pregnant women during childbirth.

Patients who believe they might have received a contaminated medication should contact the physician who performed their procedure.

Patients who received a contaminated medication should seek medical attention if they have any symptoms. Symptoms may include: fever, new or worsening headache, sensitivity to light, stiff neck, new weakness or numbness in any part of the body, slurred speech, or increased pain, redness, and swelling at the injection site. Patients might have just one or two of these symptoms, and they may take several weeks to appear.

More Information

- For patients: http://www.cdc.gov/hai/outbreaks/patients/faq-meningitis-outbreak-patients.html
- For clinicians: http://www.cdc.gov/hai/outbreaks/clinicians/index.html
- For a list of facilities that received the contaminated medicine visit: http://www.cdc.gov/hai/outbreaks/meningitis-facilities-map.html
- General information: http://www.cdc.gov/hai/outbreaks/meningitis.html

Testimony: Pharmacy Compounding—Implications of the 2012 Meningitis Outbreak

Testimony by Dr. Marion Kainer, Director, Healthcare Associated Infections and Antimicrobial Resistance Program, Tennessee Department of Health
November 15, 2012

On behalf of the Tennessee Department of Health, I would like to thank Senator Alexander for the opportunity to comment on the recent fungal meningitis outbreak. I hope to provide some insights from this tragic outbreak to the Health, Education, Labor and Pensions (HELP) Committee which I hope will assist the Committee to gain an understanding of potential opportunities to prevent and respond to such devastating outbreaks in the future.

As of November 13, Tennessee reported 81 cases and 13 deaths. Behind each one of these numbers is a lot of suffering of the patients affected, their loved ones and the communities in which they participated. One example: The death of Diana Reed who, according to her brother, was her husband’s arms, legs and voice, has been devastating. Her husband has Lou Gehrig’s Disease and Diana was instrumental in keeping his accounting business going and in helping her husband get in and out of bed, the shower and his wheelchair. The family is trying to figure out how they will carry on and enable her husband the ability to maintain his dignity and to keep his work without her; they shared their story with the New York Times.

Fungal meningitis is extremely rare. One of our great challenges was knowing just what we were dealing with as more and more patients fell ill. Even though we were looking for a fungus because the initial patient reported to us had been diagnosed with a fungal meningitis, none of the diagnostic tests yielded confirmed results until October 3, 15 days after we initiated our investigation of the first case.

Below is an outline of the timeline of major events of this outbreak and the role of the Tennessee Department of Health in this investigation. I will also discuss lessons learned in the context of this investigation.

Timeline of Major Events:

**DAY 1: TUESDAY, SEPT. 18**

*Case count as known at that time: 1 case of Aspergillus meningitis*

Dr. Marion Kainer, Director of the Tennessee Department of Health (TDH) Healthcare Associated Infections and Antimicrobial Resistance Program, receives an email sent by Dr. April Pettit, Infectious Diseases Physician, Vanderbilt University Medical Center (VUMC) about a patient with meningitis caused by a fungus, Aspergillus fumigatus, who had a recent epidural injection at a pain clinic.

Dr. Kainer and Dr Pettit discuss the case.

Dr. Kainer speaks with Ms. Candace Smith, infection preventionist (IP) at St. Thomas Hospital (STH), which is organizationally affiliated with the St. Thomas Outpatient Neurosurgical Center (STONC) where the patient received the injection. Dr. Kainer requests details of the procedure, states that the infection is a sentinel event of concern, which deserves a careful investigation and requests that Ms. Smith commence an inspection of the pain clinic (e.g., evidence of any construction, water damage) and to inquire about any potential additional cases.
DAY 3: THURSDAY, SEPT. 20

Case count as known at that time: 1 case of Aspergillus meningitis. 2 cases of meningitis, unknown cause, both seeming to be improving. No national reports of Aspergillus meningitis.

IP from STH contacts Dr. Kainer and confirms that index case had an epidural steroid injection (ESI) at STONC; provides details of the procedure. Because the Facility Manager of STONC is on vacation, the IP at STH continues to help in the investigation.

Dr. Kainer contacts Dr. Perz at the Division of Healthcare Quality Promotion (DHQP), Centers for Disease Control and Prevention (CDC) to ask whether any cases of Aspergillus meningitis had been reported to CDC from any other ambulatory surgery centers (ASC) or pain clinics. Fungal meningitis is rare, but is not required to be reported to the CDC. Even without any requirement, clinicians or states often contact CDC about unusual infections; however, no one had recently contacted the Mycotics Branch at CDC to report any cases of Aspergillus meningitis.

STH reports two additional patients with meningitis with high levels of white blood cells but no known cause. Both had undergone ESIs at STONC. Diagnoses were complicated because the patients appeared to be getting better and the cause of their meningitis was unknown. Dr. Kainer worked with clinicians to request exhaustive diagnostic tests. They also had ESI performed by same anesthesiologist at STONC. The preservative-free methylprednisolone acetate used in their ESIs was obtained from New England Compounding Center (NECC).

Arrange for one on Dr. Kainer’s staff to visit STONC the next morning, with the IP and the ID physician from STH.

On this day, STONC closes voluntarily, sequesters supplies and orders new supplies from other distributors.

DAY 4: FRIDAY, SEPT. 21

Case count as known at that time: 1 case of Aspergillus meningitis. 2 cases of meningitis of unknown cause. 1 case of stroke and meningitis, unknown cause. 1 case of stroke, no spinal tap was done.

Visit to STONC by TDH staff for a careful review of all procedures and the physical environment: no evidence observed of environmental conditions that would have led to fungal contamination of procedures.

TDH contacts CDC and describes findings of site visit. TDH asks CDC to help with laboratory testing of patients with meningitis of unknown cause (because fungus is very hard to diagnose) and also for testing of environmental samples from the clinic, if needed.

Another patient with meningitis and stroke with a history of ESI at STONC is identified, while VUMC also reports yet another patient who had a stroke and had an epidural injection, but at the time it was not clear where the ESI was done (it was confirmed as STONC on Day 7).

TDH sent out a Health Alert using our TN Health Alert Network (THAN), asking clinicians to look for and report any cases of meningitis following epidural injection to the TDH.

At this time, the leading suspected causes of meningitis were the contrast media and methylprednisolone acetate (MPA) from NECC because both were used in each patient (and are commonly given together for an ESI). Other less likely possibilities included local anesthetic, local skin preparation and needles used for the injection.
DAY 6: SUNDAY, SEPT. 23

*Case count as known at that time: 1 case Aspergillus meningitis. 4 cases of meningitis unknown cause. 1 case of stroke, but no spinal tap done.*

IP at STH contacts Dr. Kainer about one new patient and one patient readmitted with meningitis; both had ESI at STONC.

DAY 7: MONDAY, SEPT. 24

Facility manager from STONC has returned from vacation and provides additional information on the facility practices. TDH staff arrange to begin collecting data on patients to try to find out what distinguishes the case patients from those who did not get sick. TDH and CDC communicating closely.

Dr. Kainer contacts State epidemiologist at Massachusetts Department of Health, Dr. Al DeMaria, to request a conference call with TDH, CDC, MA staff and NECC to obtain distribution list of clinics that got MPA from NECC in order to look for other cases of meningitis among patients who received ESI with MPA compounded by NECC.

DAY 8: TUESDAY, SEPT. 25

*Case count as known at that time: 6 cases of meningitis unknown cause. 1 case of stroke, but no spinal tap done. 1 case of other neurologic problems and abnormal spinal tap (unknown cause). 1 case Aspergillus meningitis*

NECC at STONC; however, one of the patients did not receive the suspected contrast and the procedure was done by a different anesthesiologist.

Conference call with TDH, CDC, Massachusetts Department of Health and Board of Registration in Pharmacy (MABRP) and NECC. NECC stated no adverse events reported, no new suppliers of ingredients or changes in procedures. TDH described severity of cases and that preservative free MPA was leading hypothesis. TDH requested distribution list and verified that voluntary recall procedures were in place.

TDH staff begin collecting all the medical information needed to conduct their epidemiologic studies.

STONC starts contacting potentially exposed patients.

A new patient who had an ESI at STONC was admitted to STH with numbness and bowel/bladder control problems, but no headache or fever. Her spinal tap shows signs of meningitis of unknown cause, but with a much lower white blood cell count than the other cases of meningitis.

DAY 9: WEDNESDAY, SEPT. 26

NECC issues voluntary recall for 3 lots of preservative free MPA and provides distribution list of consignees to MABORP and FDA.

TDH and CDC draft an Epi-X Alert (national emergency alert system for public health professionals) to report cases of meningitis related to epidural injections.

TDH continues to follow up on patients who received ESI at STONC to look for any other unusual illnesses or complications.

CDC helps TDH by making available a medical doctor with expertise in treating fungus to assist TN clinicians in caring for patients.
**DAY 10: THURSDAY, SEPT. 27**

TDH staff complete first round of epidemiologic studies; preliminary findings support that MPA is likely source.

TDH asks STONC to contact all patients who had procedures since July 30.

Analysis of the NECC distribution list shows two other clinics in TN received MPA. These clinics are contacted and all MPA is sequestered. Both clinics cease performing ESIs.

The first clear evidence that the meningitis cause is not related to the STONC clinic: North Carolina (NC) reports a patient with meningitis exposed to MPA from NECC.

**DAY 11: FRIDAY, SEPT. 28**

It is still not absolutely clear that the MPA from NECC is the only possible source of contamination: the NC case patient had also received lidocaine and povidone iodine from the same manufacturers used by STONC. The lidocaine was the same lot number.

CDC notifies all State Health Departments of situation and urges them to contact clinics who do ESIs to ask them to contact and check on the health of recipients of MPA using a script prepared by CDC. They ask that this be done immediately, not waiting until after the weekend.

CDC issues another national Epi-X alert indicating that this now is a multi-state outbreak and requesting reports of meningitis, other neurological infections, and stroke. TDH sends its own alert through THAN to clinicians and hospitals in TN to look for and report meningitis, stroke and focal infections in patients who have had epidural injections.

Still, all diagnostic tests on these cases remain negative. The only patient with a confirmed diagnosis remains the first case patient reported. This highlights the difficulty of diagnosing a fungal infection, even when one is looking very hard to find it.

TDH continues to work on epidemiologic studies to learn more about these patients, despite not yet having a confirmed diagnosis. TDH requests assistance from CDC to abstract clinical data from patient records (help arrives on Day 14).

**DAY 13: SUNDAY, SEPT. 30**

TDH and STONC staff continue to abstract data on patients who had procedures since July 1.

**DAY 14: MONDAY, OCT. 1**

*Case count as known at that time: 11 cases, 2 deaths*

TDH holds its first press conference and initiates a daily scheduled press briefing.

TDH partners with the state Poison Control Center to assist in responding to questions from the general public.

Other TN clinics continue to contact patients exposed to MPA from NECC. CDC and TDH staff work on gathering patient data to continue studies.

TDH participates on call with expert fungal clinical panel convened by CDC, discuss need for CDC to provide interim suggestions/advice to clinicians on diagnosis and treatment.
DAY 15: WEDNESDAY, OCT. 3

Case count as known at that time: 18 cases, 2 deaths

- CDC issues interim guidance on diagnostics and clinical management using input from an expert fungal clinical panel convened by CDC.
- For the first time since the initial report, a tissue biopsy from a case patient shows a fungus. However, the fungus looks different than Aspergillus. More tests must be done to identify it.
- TDH issues another alert through THAN to clinicians to help them identify, diagnose and treat ill persons exposed to MPA from NECC.
- TDH analysis of STONC patients suggests that one particular lot of the 3 NECC MPA lots present at STONC is the most likely to make patients sick: Lot 06292012.

DAY 16: THURSDAY, OCT. 4

Case count as known at that time: 25 cases, 3 deaths

- A final identification of the fungus causing illness is still not made, but a specimen from another patient who died shows a fungus that is not Aspergillus.
- FDA announces fungus was seen on microscopic examination of an unopened vial of MPA from Lot 08102012. This now is very strong evidence that MPA is the cause of the outbreak.
- TDH alerts TN healthcare facilities using THAN to cease use of all medications and products from NECC.

DAY 17: FRIDAY, OCT. 5

Case count as known at that time: 29 cases, 3 deaths

- TDH opens state health operations center to assist in case tracking, active surveillance (contacting, reaching out to all persons who received MPA from NECC at any of the 3 Tennessee clinics—a total of 1009 persons). Mobilize regional health operations centers and use public health nurses to contact hard to reach patients, going door to door when necessary. Public health nurses maintained regular phone and in person contact with affected patients for weeks, changing messaging as required to adjust to a fluid and constantly changing scientific understanding and related patient needs.
- The CDC has another meeting of its expert fungal panel.

DAY 18: SATURDAY, OCT. 6

Case count as known at that time: 29 cases, 3 deaths

- NECC announces voluntary recall of all NECC products
- FDA issues Medwatch alert asking providers to stop using any NECC products.

DAY 24: FRIDAY, OCT. 12

Case count as known at that time: 50 cases, 6 deaths

- MMWR (CDC publication) is published on clinical presentation of cases.
DAY 26: SUNDAY, OCT 14

Case count as known at that time: 53 cases, 6 deaths

FDA call with States and CDC on concerns about sterility of any product from NECC.

DAY 27: MONDAY, OCT. 15

Case count as known at that time: 53 cases, 6 deaths

FDA issues Medwatch alert.

TDH works with the Tennessee Hospital Association (THA), the TN medical association (TMA), the ambulatory surgery center association and the TN pharmacist association to assist in alerting hospitals, providers and clinics to identify and notify patients who received NECC products.

DAY 29: WEDNESDAY, OCT. 17

Case count as known at that time: 61 cases, 8 deaths

TDH identifies that patients who received older vials are much more likely to get sick. Questions begin about whether or not to test these patients even if they are not sick, if testing might prevent serious illness such as stroke.

DAY 30: THURSDAY, OCT. 18

Case count as known at that time: 63 cases, 8 deaths

TDH works with CDC experts to develop a mathematical model used for decision analysis by CDC about what to do for high risk patients.

For the first time, CDC and FDA confirm presence of Exserohilum rostratum in unopened vials from Lot 0810210@51.

This is now definitive evidence that contaminated MPA is the cause of the outbreak.

DAY 35: TUESDAY, OCT. 23

Case count as known at that time: 70 cases, 9 deaths

MA Board of Registration in Pharmacy issues report of initial preliminary findings.

DAY 38: FRIDAY, OCT. 26

Case count as known at that time: 74 cases, 10 deaths

FDA releases copy of FDA form 483. All 50 vials of MPA tested showed contamination (likely fungal).
DAY 48: TUESDAY, NOV. 6

*Case count as known at that time: 78 cases, 13 deaths*


DAY 51: FRIDAY, NOV. 9

*Case count as known at that time: 81 cases, 13 deaths*

TDH invited to provide testimony to the Senate HELP committee.

TDH requests on site assistance again from CDC to describe later complications of fungal infection, such as epidural abscess, arachnoiditis and risk factors. Two EIS officers will arrive on site on Nov 13.

**Lessons Learned**

1. Compounding and/or repackaging of medications must be performed safely. Patients and healthcare providers should expect safe and effective medications. Compounding pharmacies provide a needed service. If compounded products are unavailable to meet the unique needs of some patients, providers may perform compounding or repackaging themselves at the bedside and may also put patients at risk.

2. Recent investments in public health infrastructure through cooperative agreements from the CDC have supported building public health capacity at the TDH. This capacity was invaluable in identifying and responding to the outbreak, determining the cause resulting in product recall only eight days after initial notification saving lives and limiting the number of patients administered the contaminated injections. Specific examples are provided below:

   a. Six members of the Healthcare Associated Infections (HAI) team are funded through the Prevention and Public Health Fund Epidemiology and Laboratory Capacity Cooperative agreement and the Emerging Infections Program. In addition, the team has a CDC/ Council of State and Territorial Epidemiologists (CSTE) fellow. The only person not funded by CDC is the director of the HAI program, Dr. Kainer.

     i. The team had the expertise to ask the right questions, conduct on-site visits, create relevant standardized investigation forms, create a database, enter and analyze the data swiftly to determine the cause of the outbreak and those at highest risk of getting sick.

     ii. In Tennessee, if the recall had been delayed by 9 days, we estimate that at this time we would have seen an additional 59 cases and at least 5 additional deaths. If treatment guidance from CDC had been delayed, the number of deaths would be even higher.

     iii. To prevent healthcare associated infections, the team has built very close relationships with infection preventionists at hospitals, the Tennessee Hospital Association and is building relationships with the ambulatory surgery center community. These relationships are built on mutual trust and have been invaluable in promoting open communication.

   b. Surge capacity was provided by staff funded under the Epidemiology and Laboratory Capacity (ELC) grant and the Public Health Emergency Preparedness (PHEP) cooperative agreements as well as an additional CDC/CSTE fellow and an Epidemic Intelligence Service (EIS) officer assigned to Tennessee.
i. These staff funded provided assistance in reviewing clinical information on suspect and confirmed cases, and in tracking down 1,009 exposed patients. Contact by phone or in person was made by local public health department staff, funded by the state of Tennessee, sometimes with assistance from law enforcement. Outreach included frequent telephone calls and door to door tracking, including home visits whenever necessary. Some exposed patients were living in or traveling in other states or were overseas when they developed symptoms.

ii. The State Health Operations Center provided the necessary infrastructure to coordinate activities among the 170 public health staff in Tennessee.

iii. The alert network (THAN) connecting TDH with clinicians and staff at hospitals was invaluable in rapidly getting information out.

iv. We were able to use a database designed for tracking persons in shelters to track patients who were exposed.

3. Relationships with Federal partners were critical in the response to this outbreak.
   a. CDC provided invaluable assistance throughout the outbreak including weeknights and weekends. Some examples include:
      i. Laboratory support: CDC developed a diagnostic test to assist in the outbreak investigation and provided laboratory support for confirming the identities of fungal isolates. The infectious diseases pathology branch has been providing valuable insights on how this fungus behaves and the type of damage it does to tissues. This has greatly assisted the clinicians on the fungal expert working group.
      ii. Clinical support: TDH was fortunate to have CDC Epidemic Intelligence Service Officers on site to assist in clinical data abstraction. CDC regularly convenes the expert fungal panel to develop diagnostic and management guidance that has been constantly updated with the latest clinical information. This has been very helpful to clinicians, many of whom have never treated fungal meningitis before, and this guidance without a doubt saved a lot of lives. Of the 33 Tennessee patients who sought medical care before October 3, 9 (27.3%) died. Of the 48 patients who sought medical care on, or after October 3, when the first CDC treatment guidance was issued, four (8.3%) died.
      iii. Communications: CDC has provided relevant, up-to-date information on case counts, diagnostic and treatment guidance, case definitions etc... on their website, through EPI-X alerts and the Health Alert Network. They have hosted regular conference calls with State partners and other Federal partners to ensure accurate dissemination of information.
      iv. Epidemiologic support: CDC has provided technical support (e.g., reviewing logistic regression models, running survival analyses) as well as coordinated the aggregation of data across multiple states to provide a complete national picture. Examples of critical information include distribution of incubation periods. CDC provided expertise in mathematical modeling to review whether guidance needed to be changed for asymptomatic patients at high risk of infection in order to prevent strokes or death.
      v. Coordination: CDC has coordinated the national response with other States and the FDA
   b. FDA provided valuable information on local inspection findings, as well as laboratory testing of products
i. The information provided by FDA was extremely helpful. It also would have been helpful if FDA had shared interim findings with TDH and other State health departments to allow them a better understanding of the extent of the problem at the compounding pharmacy. This type of information is very helpful as state health departments attempt to gauge the level of risk and consider surveillance strategies.

4. Relationships and Infrastructure

a. By focusing on emergency preparedness and on reducing healthcare associated infections, we have made much progress in enabling rapid communication between public health and hospitals; however challenges remain, especially with providers who do not work in hospitals (e.g., ambulatory surgery centers) and with medical specialists who are not traditional emergency response partners.

b. Use of electronic health records allowed tremendous savings in time in allowing us to monitor the clinical progress of patients and saved time and resources at the affected hospitals.

c. This outbreak illustrated the tremendous importance of inter-facility communication when patients may seek medical services in multiple facilities for complications that arise from treatment at another facility. Reporting to public health is critical, as Dr. Pettit’s email illustrated.

d. Communication with exposed patients during periods of great uncertainty was very important. Public health played a vital role in finding exposed patients that were difficult to reach and when clinic staff were overwhelmed with the task at hand.

e. Communication with media: Frequent press-briefings allowed TDH to effectively communicate important public health messages in a dynamic and rapidly evolving outbreak while allowing staff to continue to do critical work.

Conclusion

This has been a devastating outbreak for patients, their families and friends, healthcare providers and clinics. In Tennessee we still have many patients hospitalized and suffering from complications and others who are exposed and frightened that they may become infected. Sustained commitment to funding for emergency preparedness and reduction of healthcare associated infections through cooperative agreements from the CDC has supported our productive relationships with our partners and healthcare providers across the state. These pre-existing relationships allowed us to respond quickly because we trusted each other. We all need to work together to do our best to prevent such a tragedy from occurring again and to ensure that we have the public health capacity to detect and rapidly respond to any future outbreaks.

Thank you for your time and attention.
Sources
