

10 WAYS

STATE AND TERRITORIAL HEALTH DEPARTMENT LEADERS CAN SUPPORT HEALTHCARE-ASSOCIATED INFECTION AND ANTIMICROBIAL RESISTANCE PREVENTION, DETECTION, AND RESPONSE

Healthcare-associated infections (HAIs) are infections that patients acquire while receiving care and treatment in healthcare facilities. Some HAIs are caused by **antimicrobial-resistant (AMR)** organisms such as bacteria and fungi and are difficult or impossible to treat. Risk factors for HAI and AMR include invasive medical procedures, inadequate infection prevention measures, and inappropriate use of antimicrobials.

CDC estimates that one in 31 hospital patients has at least one HAI infection on any given day¹. HAIs cost the United States an estimated

\$33 billion in excess medical costs, increasing the costs of medical care and the risks of preventable harm to patients².

To protect the public's health, health departments have a key role in preventing, detecting, and responding to HAIs and AMR. Health department leaders and their partners can take the following actions to reduce preventable infections, lower healthcare costs, and improve public health:

1. INFORM practice using evidence-based policies. State, territorial, and local health departments are well positioned as experts in their communities to educate policymakers about the importance of HAI prevention and reducing AMR. Additionally, health departments can provide recommendations to policymakers and other stakeholders to develop and support evidence-based policies to prevent HAIs, reduce AMR, and improve sepsis detection and treatment.

EXAMPLE: In 2013, [New York state](#) became the first in the nation to issue a statewide mandate (effective in 2014) for all hospitals to report sepsis cases and outcomes to the New York Department of Health and to develop evidence-based protocols to improve detection and treatment of sepsis.



2. COLLABORATE across programs to leverage investments in infrastructure and foster innovation. Health department leaders can support HAI and AMR programs to improve public health practice by building on existing evidence by testing innovative and cost-efficient strategies to prevent, detect, and respond to emerging and resistant infections in their jurisdictions.

EXAMPLE: [CDC's Antibiotic Resistance Solutions Initiative](#) invests in national infrastructure and encourages innovative approaches to detect, respond, contain, and prevent antibiotic resistant (AR) infections across healthcare settings, food, and communities. CDC does this through partnerships with state and local public health departments, academia, and healthcare providers.



EXAMPLE: In 2018, the [Tennessee Department of Health](#) instituted a phased in mandated reporting of antibiotic use by acute care hospitals to improve access to hospital data on antibiotic use, allowing the state to better use data for action at both the facility, regional, and state levels to improve antimicrobial usage.



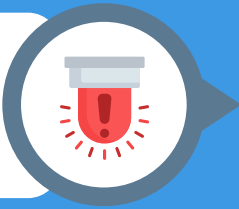
3. USE data for action. Health departments and their partners can use data from public health, healthcare, and laboratories to identify potential HAI or AMR clusters or outbreaks and address gaps in infection prevention and control practices.

4. IMPLEMENT prevention tools. Health department leaders should work with healthcare partners to implement targeted HAI prevention and antimicrobial stewardship strategies to foster a culture of quality improvement for HAI and AMR prevention.

EXAMPLE: In 2017, the [Arkansas Department of Health](#) worked extensively with a local hospital that had a large number of excess central-line associated blood stream infections to implement [CDC's Targeted Assessment for Prevention](#) strategy, a framework for quality improvement that directs prevention efforts to high burden areas, to address infection control issues, resulting in fewer infections.

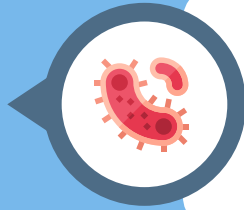


EXAMPLE: In [Texas](#), state HAI epidemiologists coordinated with the [Antibiotic Resistance Laboratory Network](#) and CDC to identify and contain the state's first case of *mcr-1* resistance. This coordinated effort prevented onward transmission.



5. CONTAIN emerging threats. State and territorial health departments, in conjunction with local health departments, healthcare facilities, and laboratories, have an important role to play in identifying and containing current and emerging AMR threats to stop further spread.

6. RESPOND to and PREVENT outbreaks within and between healthcare settings. Health departments and healthcare facilities should work together to respond to and prevent HAI outbreaks that occur in healthcare settings by monitoring HAI surveillance data, tracking patient movement between facilities, and implementing infection control practices.



EXAMPLE: Since 2013, New York has been responding to a large *Candida auris* (drug-resistant fungus) [outbreak](#) in its healthcare facilities. With 2017 funding from CDC, New York has been able to invest in fungal disease surveillance and increase the state's ability to identify fungal diseases, monitor new and emerging resistance, and implement strategies to prevent further spread.

EXAMPLE: The Minnesota Department of Health, numerous state agencies, and clinical, industry, and academic stakeholders created the [Minnesota One Health Antibiotic Stewardship Collaborative](#) to combat AR and promote antibiotic stewardship.



7. PROMOTE appropriate antibiotic use. Inappropriate use of antibiotics has contributed to the growing problem of AR. Health departments can encourage appropriate antibiotic use by providing training and technical assistance about antibiotic stewardship to healthcare facilities and supporting public awareness campaigns such as CDC's [Be Antibiotics Aware](#) campaign to help the public understand when antibiotics do and don't work.

8. ALIGN state and federal investments. Health department leaders should look for opportunities to align resources and funding to enhance HAI and AMR program efforts. Examples might include leveraging investments in expanded laboratory and epidemiological capacity to develop a more effective response to emerging threats throughout the public health and healthcare enterprise.



EXAMPLE: The [U.S. National Action Plan for Combating Antibiotic-Resistant Bacteria](#) was developed through collaboration between federal agencies and a variety of human, environmental, and animal health experts tasked with developing and implementing a national action plan to improve antibiotic use and stewardship, prevent the spread of AR infections, and increase AR surveillance and research activities. The plan provides recommendations for numerous stakeholders, including state, territorial, and local health departments.

EXAMPLE: In 2018, CDC and HHS launched the [Antimicrobial Resistance Challenge](#), a global effort to fight AMR that encourages stakeholders to submit actionable commitments for addressing AMR. Effective communication is central to the success of this initiative.



9. LEVERAGE partnerships with global, national, state, and local experts. Effective communication between global, national, state, and local partners and sharing and disseminating resources and best practices about prevention will help to prevent the spread of HAIs and AMR in the United States and abroad.

10. EDUCATE providers, patients, policymakers, and the public about potential downstream impacts of HAIs and AMR. Health department leaders can educate and engage providers, policymakers, and the public about additional impacts of HAIs and AMR, such as sepsis, through education and awareness campaigns at the local, state, and national levels.



EXAMPLE: In 2018, the Maryland Secretary of Health established a [Sepsis Public Campaign Workgroup](#). The workgroup is charged with developing and implementing a statewide campaign to educate the public on sepsis risk and prevention. Additionally, CDC led the development of a national campaign [Get Ahead of Sepsis](#) to raise awareness of the risks of sepsis.

Visit ASTHO's [Healthcare and Infection Control Gateway](#) for additional resources and to learn more.

References:

1. CDC. "HAI Data." Available at <https://www.cdc.gov/hai/data/index.html>.

2. CDC. "The direct medical costs of healthcare-associated infections in U.S. hospitals and the benefits of prevention." Available at http://www.cdc.gov/hai/pdfs/hai/scott_costpaper.pdf.