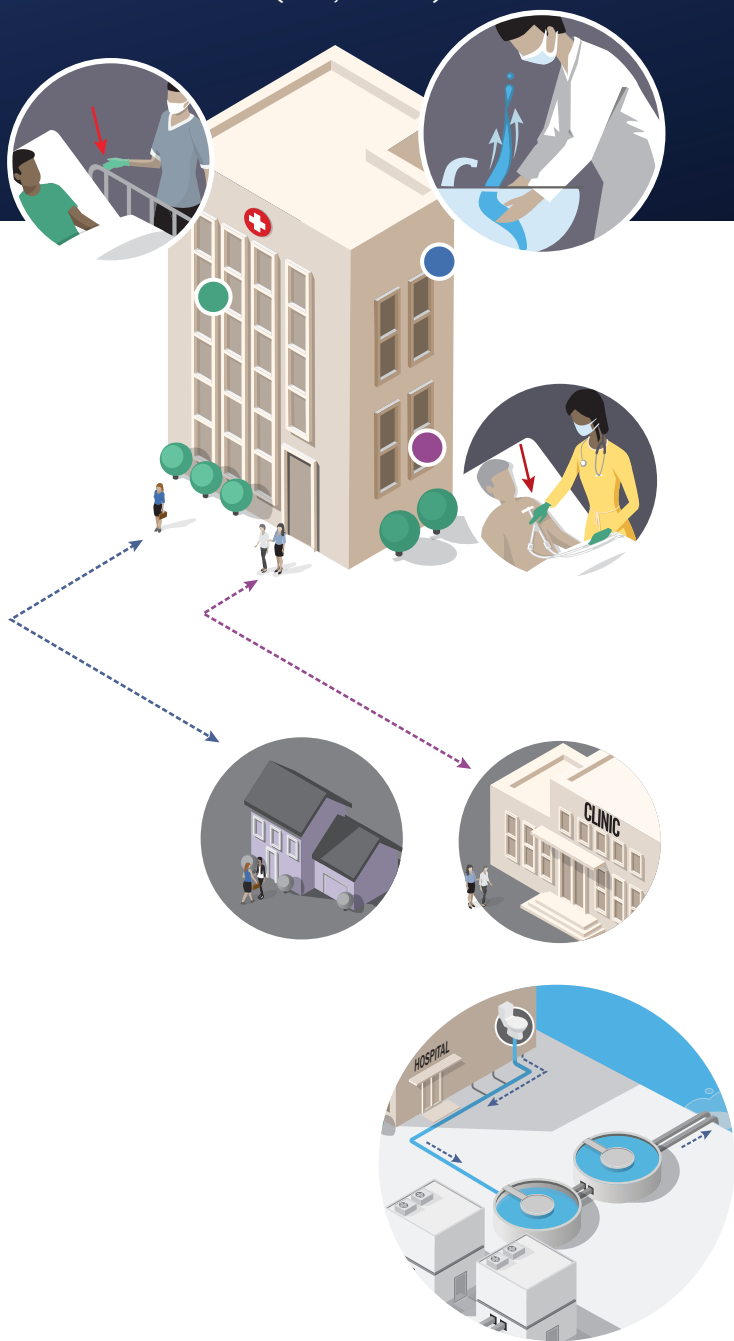


A Complex Web: Everything is Connected Healthcare Facilities

Antibiotic-resistant germs, including new and emerging resistance, can spread within and between healthcare facilities. These germs can cause infections in patients, called healthcare-associated infections (HAIs), and can spread to the community or environment (soil, water).



- ◀ Antibiotics save lives. However, any time antibiotics are used, the drugs can cause side effects and contribute to the development of antibiotic resistance.
- ◀ Germs can survive in plumbing (e.g., sink drains, toilets). The germs can splash back onto people, or move to wastewater treatment plants.
- ◀ Without appropriate infection control actions, germs can spread to people from other people on surfaces like bedrails or the hands of healthcare workers.
- ◀ Procedures and medical devices (e.g., catheters) help treat patients, but can be pathways for germs to enter the body and cause infections.
- ◀ Germs can move with patients when they are transferred from one healthcare facility to another, or go home.
- ◀ Germs can cause infections in the community when healthcare settings do not stop their spread.
- ◀ Human waste (poop) can carry traces of previously consumed antibiotics and antibiotic-resistant germs. Waste goes to treatment plants and is released as treated waste water. This can contribute to antibiotic resistance in the environment, including contaminating lakes and streams.



Learn more about CDC's
AR Solutions Initiative:
www.cdc.gov/DrugResistance

Scan with your smartphone camera to watch a video on how CDC & partners are fighting AR globally



U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

CDC Fights Antibiotic Resistance (AR) in Healthcare

The United States is positioned for a better and faster response to AR because of the strategic leadership and investment of CDC's AR Solutions Initiative, which invests in national infrastructure to detect, respond, contain, and prevent resistant infections across healthcare, food, and community settings.

CDC ACTIVITIES

Tracking and Data

- Using CDC's **AR Lab Network** to detect known and emerging AR in every state
- Tracking and reporting AR threats and antibiotic use through **CDC's National Healthcare Safety Network**
- Leveraging **new technologies** (e.g., whole genome sequencing) to better understand resistance

Infection Prevention and Containment

- Coordinating with local and state public health departments to inform **outbreak response**
- **Providing resources and expertise** in outbreak response, infection prevention and control, and lab detection
- Providing **Infection Control Assessment & Response (ICAR)** in healthcare facilities to identify gaps and give recommendations and stop the spread of resistant germs
- Working directly with hospitals and clinicians, academic institutions, patients, private industry and clinical and public health partners to advance research

Improving Antibiotic Use

- Improving antibiotic use **across healthcare settings**, including telehealth, dental settings, outpatient settings, and STD clinics
- Providing evidence and tools for facilities to implement **antibiotic stewardship** practices and programs
- Identifying **new strategies and techniques** for improving antibiotic use



**TO MOVE
FORWARD**

In the next five-year National Action Plan to Combat AR (CARB), CDC aims to:

- **Expand the AR Lab Network internationally** to identify and respond to emerging threats and other AR threats to improve international collaboration and capacities for AR prevention, surveillance, control
- **Develop a Center of Excellence for Whole Genome Sequencing** related to healthcare-associated pathogens to strengthen national One Health surveillance efforts to combat AR
- **Double AR investments in state and local health departments** to slow the emergence of resistant bacteria and prevent the spread of resistant germs

CDC IN ACTION

- Hospital prevention programs reduced the number of antibiotic-resistant infections by 27% from 2012-2017 and **the number of deaths from antibiotic-resistant infections by nearly 30%**.
- Outpatient **antibiotic prescribing has decreased 5%** from 2011-2016. Of that 5%, outpatient antibiotic prescribing to children has decreased 16% from 2011 to 2017.
- For the first time, nearly **13,000 swabs tested** to detect resistant germs in healthcare—many launched a containment response.
- More than 80% of hospitals report having an antibiotic stewardship program meeting **CDC's Core Elements**.
- Substantial online engagement with Be Antibiotics Aware content, **188M+ impressions** from PSAs



**Learn more about CDC's
AR Solutions Initiative:
www.cdc.gov/DrugResistance**

Scan with your smartphone camera to watch a video on how CDC & partners are fighting AR globally

CS 320128-D



**U.S. Department of
Health and Human Services**
Centers for Disease
Control and Prevention