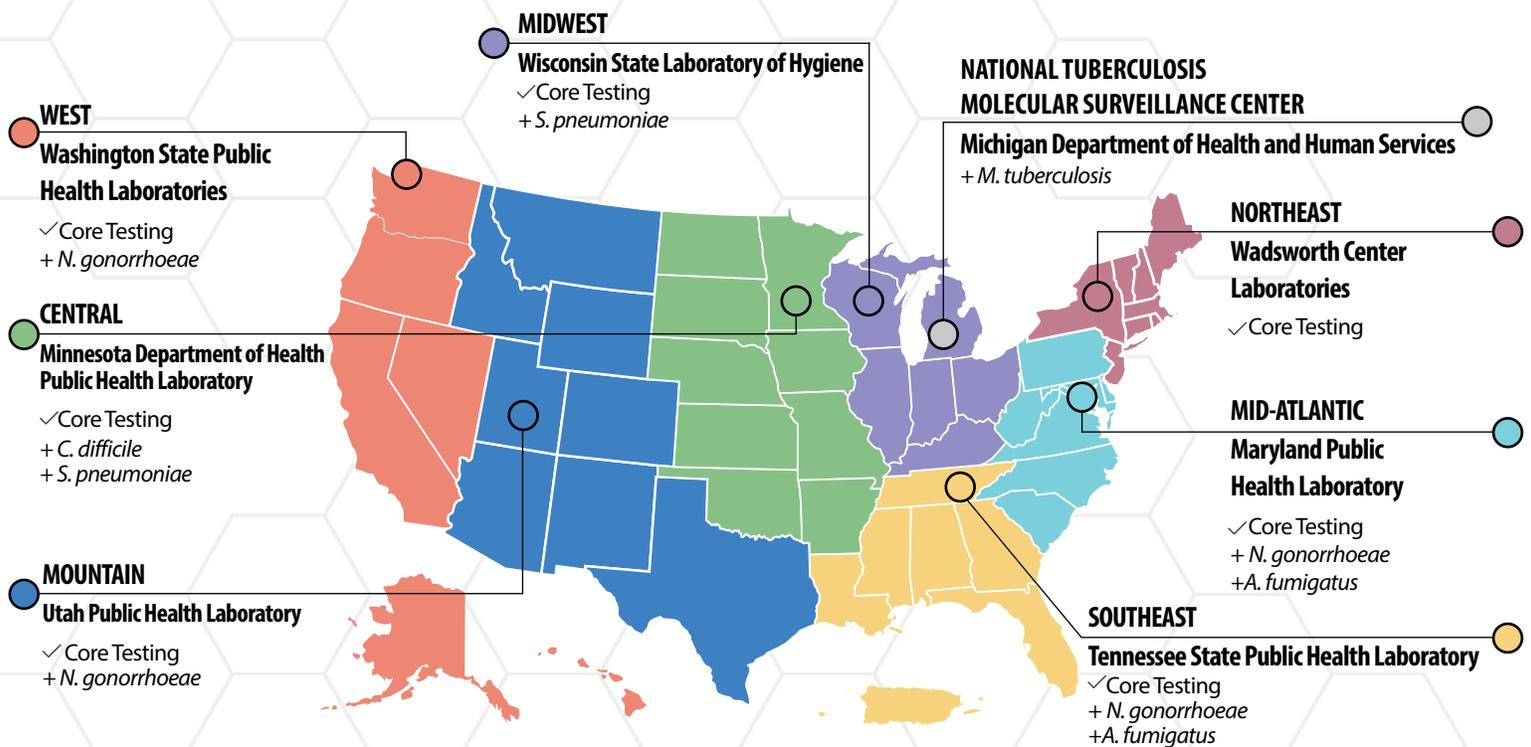


About CDC's AR Lab Network

The AR Lab Network provides nationwide lab capacity to rapidly detect antibiotic resistance in humans related to health care, food, community, and the environment, and inform local responses to prevent spread and protect people. The AR Lab Network includes seven regional labs, the National Tuberculosis Molecular Surveillance Center (National TB Center), and labs in 50 states, five cities, and Puerto Rico. As a whole, the network tracks changes in resistance and helps disease detectives identify and respond to outbreaks faster.

AR Lab Network Regional Labs & National Tuberculosis Molecular Surveillance Center (2020–2021)

Every regional lab does core testing. Some regional labs provide additional testing to support nationwide needs. The National TB Center is equipped to perform whole genome sequencing (WGS) for isolates of *Mycobacterium tuberculosis* in the United States.



Core Testing by all regional labs:

- ✓ Molecular testing to detect colonization of carbapenem-resistant Enterobacteriales (CRE).
- ✓ Detection of new and emerging threats, like novel carbapenemase genes, and ability to detect changes in known threats, like methicillin-resistant *Staphylococcus aureus*.
- ✓ Fungal susceptibility of *Candida* species to identify emerging resistance.
- ✓ Identification and colonization screening to detect and help prevent spread of *Candida auris* (*C. auris*).
- ✓ Perform expanded susceptibility testing to determine if new drugs or drug combinations will be effective to treat patients infected with especially rare resistant pathogens.
- ✓ Isolates may be used for the CDC and FDA AR Isolate Bank and WGS projects.

Additional Testing by some regional labs and the National TB Center:

- + *Clostridioides difficile* (*C. difficile*) special projects.
- + Enhanced detection of drug-resistant *Neisseria gonorrhoeae* using reference testing method and WGS.
- + Antimicrobial susceptibility and serotyping of multidrug-resistant *Streptococcus pneumoniae* (*S. pneumoniae*).
- + WGS for all isolates of *Mycobacterium tuberculosis* (*M. tuberculosis*) and *C. auris*.

Testing by every state through the AR Lab Network:

Every health department tests CRE and carbapenem-resistant *Pseudomonas aeruginosa* (CRPA) isolates for resistance mechanisms, including carbapenemases, and antimicrobial susceptibility. All states perform PCR, carbapenemase production tests, and AST on CRE/CRPA.

