



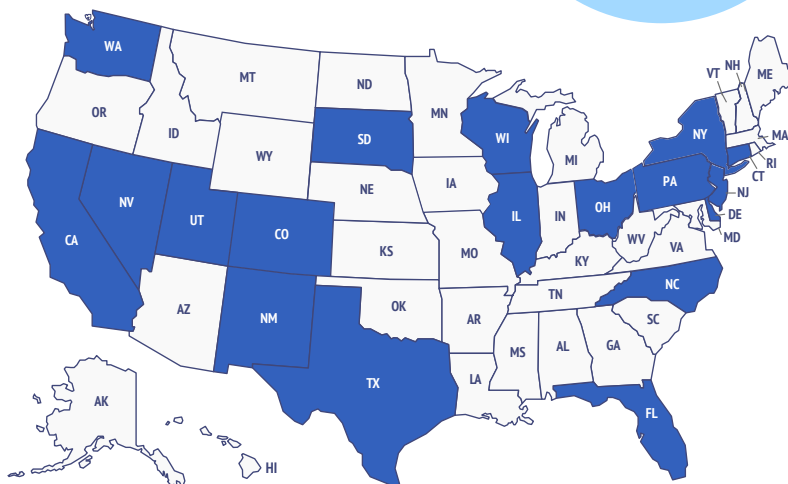
The Power of Public Health Investments

Combating Antimicrobial Resistance and Protecting Patients

CDC, in collaboration with CDC-supported AR Lab Network and HAI/AR programs identified a large multistate outbreak of extensively drug-resistant *P. aeruginosa* linked to artificial tears. This work identified and contained the spread of this never-before-seen aggressive antimicrobial-resistant bacteria in record time, saving many Americans from vision loss, dangerous infections, and possibly death.



 **Vulnerable populations with mysterious, deadly eye infections nationwide**



Dangerous pathogen strain, never before seen in the U.S.

- As of May 15, 2023, 81 patients identified with the outbreak strain, from 18 states with VIM-GES-CRPA, a rare strain of extensively drug-resistant *P. aeruginosa*. (CA, CO, CT, DE, FL, IL, NC, NJ, NM, NV, NY, OH, PA, SD, TX, UT, WA, WI)
- Most patients had at least one serious underlying condition and/or underlying eye disease.
- Outbreak began with a few clusters but quickly increased as many more cases were discovered due to response efforts.

81 patients identified with the outbreak strain



61 years

A median age of 61 years

≥ 1 condition

At least one serious underlying condition and/or eye condition

4 deaths



What happened during the **outbreak?**

CDC & state networks launched into collaborative action:

National, coordinated response efforts between public health laboratories, HAI/AR programs and CDC rapidly identified and investigated 3 facility outbreak clusters in 3 states.

With increased funding for whole genome sequencing, CDC has guided public health laboratories to perform routine sequencing for uncommon MDROs like VIM-*Pseudomonas*.



Whole genome sequencing (WGS) conducted by public health laboratories, determined the 3 outbreaks were caused by the same strain suggesting a multistate outbreak

P. aeruginosa

Collaborative effort between health departments with WGS through the AR Lab Network, HAI/AR prevention epi programs, CDC and collaboration with FDA solved this outbreak.

Product identification and recall:

Once WGS identified the strain and connected the dots leading to a possible product contamination, health department HAI/AR programs reviewed products used by patients and reported this information to CDC. These collective efforts identified a common product.

HAI/AR programs' infection control support and AR Lab Network screening capacity helped mitigate secondary transmission.

CDC and FDA identified the outbreak strain in 7 unopened bottles from 4 different lots of artificial tears products from 2 different states.



CDC and FDA issued advisories for patients and clinicians to immediately stop using the products.

Wide-reaching clinical alerts uncovered additional cases.

Manufacturer recalled the product.



CDC leveraged partners, media, and public health relationships to notify the American public widely.

