# Antibiotic-Resistant Gonorrhea

KEY FACTS FOR PUBLIC HEALTH LEADERSHIP

**Gonorrhea** is the second most commonly reported notifiable disease in the United States, with an estimated 820,000 new cases per year.<sup>1, 2</sup> For decades, antibiotics have been able to treat it successfully. However, researchers and public health leaders are alarmed because the bacteria that causes gonorrhea, *Neisseria (N.) gonorrhoeae*, has developed resistance to nearly all of the antibiotics used for treatment.<sup>3, 4</sup> In fact, in 2019, more than half of all infections in the United States — or over 300,000 cases — were estimated to be **resistant to at least one antibiotic.**<sup>5</sup>

Why is this concerning? Because today, there is only one recommended treatment left for gonorrhea, and resistance to this regimen is emerging.<sup>6</sup> If the number of gonorrhea cases continues to rise and no new treatments become available, it has the potential to become a serious epidemic.



# The Potential Health and Economic Impacts of Antibiotic-Resistant Gonorrhea

If antibiotic-resistant gonorrhea were to reach epidemic proportions, both the health and economic consequences would be significant.

#### If untreated, gonorrhea can cause health problems including:



Increased risk of getting or transmitting HIV due to behavioral and biological factors <sup>7,8</sup>



Risk of spreading from mother to baby during childbirth, causing blindness in the baby<sup>9</sup>



Infertility<sup>10, 11</sup>



Pelvic inflammatory disease<sup>12</sup>



Disseminated gonococcal infection (DGI), a potentially lifethreatening condition where gonorrhea spreads to the blood or joints<sup>13, 14</sup>



Containing and eliminating an epidemic is far more expensive than preventing one. Currently, gonorrhea costs the United States \$162 million per year, which could be greater without prevention and control efforts. Emerging antibiotic-resistant gonorrhea could lead to over 1 million additional gonorrhea infections and 600 additional gonorrhea-attributable HIV infections with direct medical costs of \$466 million over the next 10 years. STD resources are critical in monitoring and responding to antibiotic-resistant gonorrhea outbreaks.

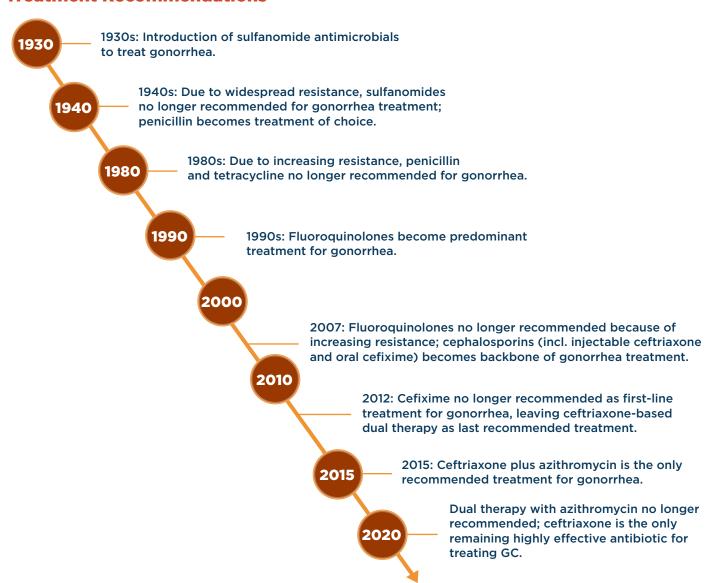




# **Antibiotic-Resistant Gonorrhea**in the United States

Only one recommended treatment option remains for treating gonorrhea — the antibiotic ceftriaxone.<sup>17</sup> However, our nation's history with drugresistant gonorrhea indicates that it's only a matter of time before these drugs are no longer effective. If antibiotic resistance continues to spread, more than an estimated 800,000 Americans who are infected each year would be at risk for untreatable disease.<sup>18</sup>

# Historical Trends in Drug Resistance and Centers for Disease Control (CDC) Treatment Recommendations<sup>19</sup>







## The Role of Public Health Leaders in Preventing Antibiotic-Resistant Gonorrhea

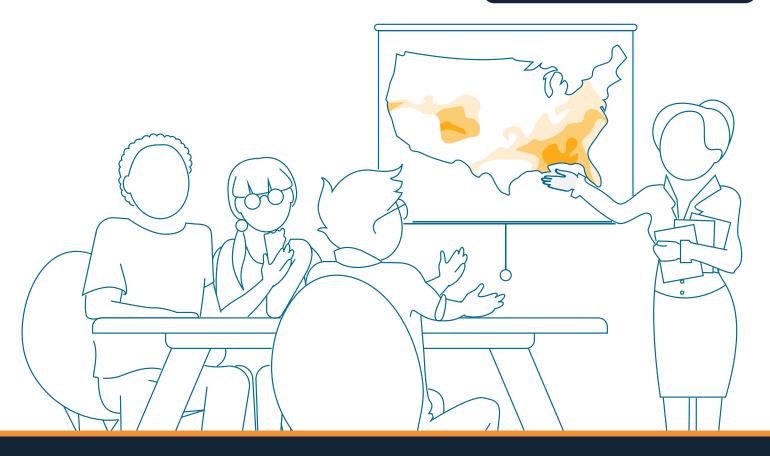
By focusing on key prevention efforts on the national, state, territorial, and local levels, public health leaders have an opportunity to gain traction before antibiotic-resistant gonorrhea becomes an epidemic.

Public health leaders can work together with STD program directors to promote healthy sexual behaviors, share best practices within their communities, and increase awareness around the potential impact of antibiotic-resistant gonorrhea.

About the National 
"Combating AntibioticResistant Bacteria" 
(CARB) Strategy

The threat of antibiotic resistance is so urgent that the federal government developed the National CARB Strategy, which calls for prevention, detection, and control of antibiotic-resistant bacteria, including gonorrhea.<sup>20</sup>

Through funding for CARB, the CDC is supporting a number of new and continuing activities that aim to slow the development of antibiotic-resistant gonorrhea and prevent its spread.<sup>21</sup> Learn more at www.cdc.gov/std/gonorrhea/arg/CARB\_FACTSHEET-2018.pdf.







### **How Public Health Leaders Can Take Action**



#### Invest

Invest in public health infrastructure to develop and strengthen local and state health department epidemiological, laboratory, and informatics capacity to more rapidly detect and respond to antibiotic resistance.



#### Leverage

Leverage CARB strategies and activities to target antibiotic-resistant gonorrhea prevention and control services in their jurisdictions.



#### Ensure

Ensure efforts to detect and stop the spread of antibiotic-resistant gonorrhea are integrated with related antibiotic resistance initiatives and infectious disease programming.



#### Hire

When possible, hire specialized public health staff who can track illnesses within communities and determine where to focus resources to prevent disease.



#### Elevate

Elevate awareness of antibiotic-resistant gonorrhea among decision-makers, healthcare professionals, and other key partners.



#### Promote

Continue to promote essential STD prevention and control functions, including partner services and safety-net services.





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#### To learn more about antibiotic-resistant gonorrhea, visit:

CDC: Antibiotic-Resistant Gonorrhea www.cdc.gov/std/gonorrhea/arg/default.htm

ASTHO: Sexually Transmitted Diseases www.astho.org/std

For local information, connect with the director of your health department's STD program and visit: www.cdc.gov/nchhstp/stateprofiles/default.htm



