

Gonorrhea and Chlamydia in the United States among Persons 14 to 39 Years of Age

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The full report is titled "Gonorrhea and Chlamydia in the United States among Persons 14 to 39 Years of Age, 1999 to 2002." It is in the 17 July 2007 issue of *Annals of Internal Medicine* (volume 147, pages 89-96). The authors are S.D. Datta, M. Sternberg, R.E. Johnson, S. Berman, J.R. Papp, G. McQuillan, and H. Weinstock.

What is the problem and what is known about it so far?

Sexually transmitted diseases are infections spread from one person to another during sexual relations. *Chlamydia trachomatis* (chlamydia) and *Neisseria gonorrhoeae* (gonorrhea) are bacteria that commonly cause sexually transmitted disease in the United States. Both infections can cause symptoms, such as discharge from the vagina or penis, pain with urination, or abdominal pain. However, many people with chlamydia or gonorrhea have no symptoms. In women, chlamydia and gonorrhea infection can cause difficulties in becoming pregnant (infertility). Infections in pregnant women can lead to prematurity, low birth weight, and serious infections in newborns. Information about the frequency of these infections is needed to guide efforts to look for and treat these diseases. Treatment with antibiotics is important to get rid of symptoms, avoid spreading the infection to other people, and prevent complications of the infections.

Why did the researchers do this particular study?

To estimate the frequency of gonorrhea and chlamydia infection among adolescents and adults in the United States.

Who was studied?

6632 people 14 to 39 years of age who participated in the 1999 to 2002 National Health and Nutrition Examination survey and who supplied urine specimens that could be tested for gonorrhea and chlamydia.

How was the study done?

The researchers looked at the frequency of gonorrhea and chlamydia infection among people who completed the survey and used this information to estimate the frequency of infection in the entire U.S. population between 14 and 39 years of age. They also examined the frequency of infection according to patient factors, such as age, sex, race or ethnic background, and history of previous sexually transmitted infection.

What did the researchers find?

The researchers estimated that 0.24% of persons 14 to 39 years of age have gonorrhea infection (fewer than 1 out of every 400 people) and 2.2% of persons 14 to 39 years of age have chlamydia infection (a little more than 2 out of every 100 people). Adolescents had the highest disease burden for gonorrhea and chlamydia compared with other age groups. Almost half of the people with gonorrhea infection also had chlamydia infection. Characteristics associated with higher infection rates were younger age, previous infection with gonorrhea or chlamydia, and non-Hispanic black race or ethnicity.

What were the limitations of the study?

The study used data from 1999 to 2002, so the survey may not accurately represent current infection frequency. The researchers could not examine potentially important factors, such as education, income, and geographic area, that might explain the differences by race or ethnic group that they found.

What are the implications of the study?

The study shows that, despite current screening recommendations, more than 2 million persons are infected with chlamydia in the United States and, despite effective treatments for both gonorrhea and chlamydia, disease rates differ across different racial or ethnic groups. Current recommendations concerning chlamydia and gonorrhea seem to make sense given the frequency of these infections in the population.

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