

GISP Profiles, 2010

The Gonococcal Isolate Surveillance Project (GISP), a national sentinel surveillance system, was established in 1986 to monitor trends in antimicrobial susceptibilities of *Neisseria gonorrhoeae* strains in the United States among selected sexually transmitted diseases (STD) clinics in approximately 25-30 GISP sentinel sites.

Annual reports were published for the years 1998–2007. Starting in 2008, site-specific GISP profiles have been published online each year.

The following site-specific profiles consist of figures depicting the demographic and clinical data of the men with gonorrhea enrolled in GISP and the antimicrobial susceptibility results of the *Neisseria gonorrhoeae* isolates submitted.

Figure A Data – Age of GISP Participants, 2010

Figure B Data – Race/Ethnicity of GISP Participants, 2010

Figure C Data – Percentage of GISP Participants Identifying as Men Who Have Sex with Men, 2000–2010

Figure D Data – Drugs Used to Treat Gonorrhea among GISP Participants, 2010

Figure E Data – Drugs Used to Treat Chlamydia Trachomatis Infection among GISP Participants, 2010

Figure F Data – Resistance to Penicillin, Tetracycline, and Ciprofloxacin among GISP Isolates, 2010

Figure G Data – Distribution of Minimum Inhibitory Concentrations (MICs) to ceftriaxone among GISP isolates, 2006-2010

Figure H Data – Distribution of Minimum Inhibitory Concentrations (MICs) to cefixime among GISP isolates, 2006 and 2009–2010

Figure I Data – Intermediate Resistance and Resistance to Ciprofloxacin among GISP Isolates, 1990–2010

Figure J Data – Distribution of Minimum Inhibitory Concentrations (MICs) to azithromycin among GISP isolates, 2006–2010

GISP Site-Specific Profiles

The Gonococcal Isolate Surveillance Project (GISP), a national sentinel surveillance system, was established in 1986 to monitor trends in antimicrobial susceptibilities of *Neisseria gonorrhoeae* strains in the United States among selected sexually transmitted diseases (STD) clinics in approximately 25-30 GISP sentinel sites.

Data from GISP provides a rational basis for the selection of gonococcal therapies for the US and has directly contributed to the CDC STD Treatment Guidelines. GISP is a collaborative project between these sentinel site STD clinics and their respective state/local public health authorities, GISP regional laboratories, and the Centers for Disease Control and Prevention (CDC).

The following site-specific profiles consist of figures depicting the demographic and clinical data of the men with gonorrhea enrolled in GISP and the antimicrobial susceptibility results of the *Neisseria gonorrhoeae* isolates submitted. Data for each GISP sentinel site are presented from the year they started in GISP through the current published year unless otherwise noted. Each figure is labeled with the participating site and the number of isolates on which the site's data are based. The maximum number of isolates submitted by each site is 300 when the full sample of 25 isolates per month is obtained. The number of isolates submitted is lower for many sites located in areas with low gonorrhea rates.

Additional information about GISP may be found in the CDC STD Surveillance

Report: <http://www.cdc.gov/std/stats/default.htm>

2010 GISP Sites and Regional Labs

In 2010, 29 sentinel sites participated in GISP; 14 current sites have participated continuously since 1987: Albuquerque, Atlanta, Baltimore, Birmingham, Cincinnati,

Denver, Honolulu, New Orleans, Philadelphia, Phoenix, Portland, San Diego, San Francisco, and Seattle. The other 15 current sites participated during the following years: Chicago (1996–2010), Cleveland (1991–2010), Dallas (2000–2010), Detroit (2003–2010), Greensboro (2002–2010), Kansas City (1991–2001, 2007–2010), Los Angeles (2003–2010), Las Vegas (2002–2010), Miami (1998–2010), Minneapolis (1992–2010), New York City (2006–2010), Oklahoma City (2003–2010), Orange County (1991–2010), Richmond (2007–2010), and Tripler Army Medical Center (2001–2006, 2009–2010). The four GISP regional laboratories in 2010 are located in Atlanta at Emory University, Birmingham at the University of Alabama, Cleveland at the Cleveland Clinic Foundation, and Seattle at the University of Washington.

Susceptibility to Antimicrobial Agents

For 2010, the antimicrobial agents tested in GISP were: cefixime, cefpodoxime, ceftriaxone, azithromycin, spectinomycin, ciprofloxacin, penicillin, and tetracycline.

Below are the susceptibility criteria used in GISP for 2010. The majority of the susceptibility criteria are also recommended by the Clinical and Laboratory Standards Institute (CLSI):

- *Cefixime, MIC \geq 0.5 $\mu\text{g/ml}$ (decreased susceptibility)
- *Cefpodoxime, MIC \geq 1.0 $\mu\text{g/ml}$ (decreased susceptibility)
- *Ceftriaxone, MIC \geq 0.5 $\mu\text{g/ml}$ (decreased susceptibility)
- *Azithromycin, MIC \geq 2.0 $\mu\text{g/ml}$ (decreased susceptibility)
- Spectinomycin, MIC \geq 128.0 $\mu\text{g/ml}$ (resistance)
- Ciprofloxacin, MIC 0.125 - 0.5 $\mu\text{g/ml}$ (intermediate resistance)

- Ciprofloxacin, MIC \geq 1.0 $\mu\text{g/ml}$ (resistance)
- Penicillin, MIC \geq 2.0 $\mu\text{g/ml}$ (resistance)
- Tetracycline, MIC \geq 2.0 $\mu\text{g/ml}$ (resistance)

*Note: CLSI criteria for decreased susceptibility to cefixime, cefpodoxime, ceftriaxone and azithromycin; and for susceptibility to azithromycin have not been established for *N. gonorrhoeae*.

(MIC = Minimum Inhibitory Concentration: the lowest concentration of antibiotic needed to inhibit visible growth of a microorganism in a laboratory)

Definitions of terms and abbreviations used in the site-specific figures

Figure A: Cases with unknown age were excluded.

Figure B: Cases with unknown race were excluded. The “Asian” category includes Native Hawaiians and the “Other” category includes participants who selected more than one race category. The “Other” category is not used in national gonorrhea reporting; Native Am. = Native Americans

Figure D: Other Cephalo.= cefoxitin, cefpodoxime, ceftizoxime, ceftibuten, cefdinir, and cefotaxime; Other=other less frequently used drugs, including azithromycin

Figure E: Doxy/Tet=doxycycline/tetracycline; Azi/Ery=azithromycin/erythromycin

Figure F: PenR= penicillinase-producing *N. gonorrhoeae* and chromosomally mediated penicillin-resistant *N. gonorrhoeae*; TetR=chromosomally and plasmid-mediated tetracycline-resistant *N. gonorrhoeae*; QRNG=ciprofloxacin-resistant *N. gonorrhoeae*