

Sexually Transmitted Disease Surveillance 2023: Enhanced Gonococcal Isolate Surveillance Project Profiles

**Division of STD Prevention
August 2025**

**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION
NATIONAL CENTER FOR HIV, VIRAL HEPATITIS, STD, AND TB PREVENTION
DIVISION OF STD PREVENTION
ATLANTA, GEORGIA 30329-4027**

Acknowledgments

Publication of this report would not have been possible without the contributions of all participating state and local health departments, sexually transmitted disease clinics, public health laboratories, and regional laboratories.

This report was prepared by:

Sammie Haskin, Alesia Harvey, Rebekah Frankson, Kristen Kreisel, Emily Rowlinson, and Luke Shouse, Surveillance and Data Science Branch of the Division of STD Prevention, National Center for HIV, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention.

Additional contributions by Matthew Schmerer, Myriam Bélanger, and Ellen Kersh, STD Laboratory Reference and Research Branch of the Division of STD Prevention, National Center for HIV, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention, and LaShondra Berman and Eboni Galloway, Behavioral Science and Epidemiology Branch of the Division of STD Prevention, National Center for HIV, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention.

Copyright Information

All material contained in this report is in the public domain and may be used and reprinted without special permission; however, citation as to source is appreciated.

Suggested Citation

Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2023: Enhanced Gonococcal Isolate Surveillance Project National Profile*. Atlanta: U.S. Department of Health and Human Services; 2025.

Web Site

The online version of this report is available at <https://www.cdc.gov/sti-statistics/gisp-profiles/>.

Technical Note

Antimicrobial susceptibility data presented in this report are based on criteria established by the Clinical & Laboratory Standards Institute (CLSI) and the FDA-Recognized Antimicrobial Susceptibility Test Interpretive Criteria (FDA-STIC).

2023 Enhanced Gonococcal Isolate Surveillance Project
Clinical Sites and Years Participated

| | |
|---|---|
| Columbus, Ohio (2018–2019, 2023) | Orange County, California (2018–2023) |
| Honolulu, Hawaii (2023) | Philadelphia, Pennsylvania (2018–2023) |
| Las Vegas, Nevada (2018–2023) | Phoenix, Arizona (2020–2023) |
| Minneapolis, Minnesota (2018–2019, 2023) | Pontiac, Michigan (2018–2023) |
| New Orleans, Louisiana (2018–2023) | San Diego, California (2018–2023) |

2023 Enhanced Gonococcal Isolate Surveillance Project Regional Laboratories

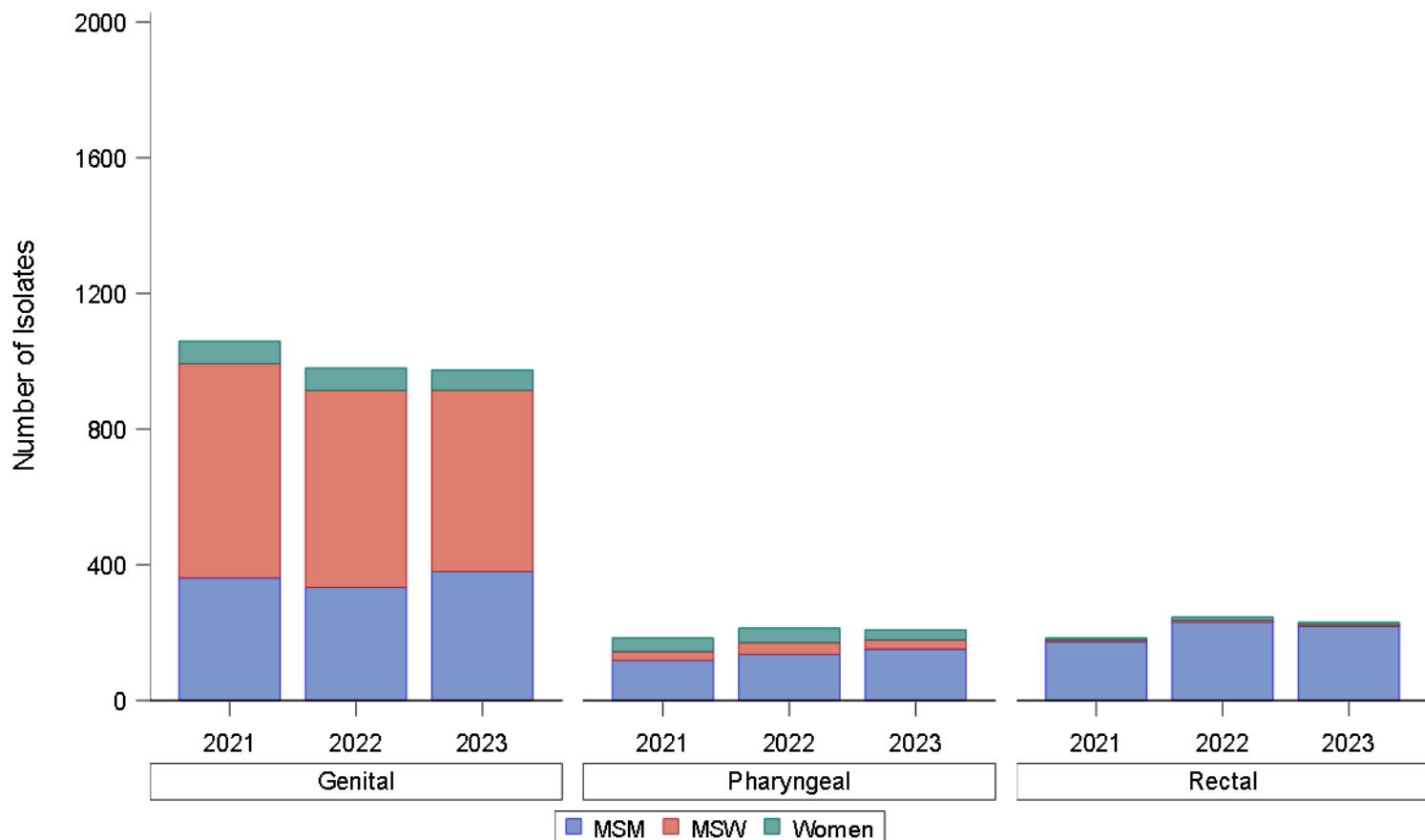
| |
|--|
| Maryland Department of Health and Mental Hygiene <i>Baltimore, Maryland</i> |
| Tennessee Department of Health <i>Nashville, Tennessee</i> |
| Utah Department of Health <i>Salt Lake City, Utah</i> |
| Washington State Department of Health <i>Seattle, Washington</i> |

2023 Enhanced Gonococcal Isolate Surveillance Project Profiles

Table of Contents

| | | |
|------------|--|----|
| Figure 1. | <u>Number of <i>Neisseria gonorrhoeae</i> Isolates by Anatomic Site of Infection and by Sex and Sex of Sex Partners, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021–2023</u> | 5 |
| Figure 2. | <u>Distribution of Cefixime Minimum Inhibitory Concentrations (MICs) Among <i>Neisseria gonorrhoeae</i> Isolate by Anatomic Site of Infection, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021–2023</u> | 6 |
| Figure 3. | <u>Distribution of Ceftriaxone Minimum Inhibitory Concentrations (MICs) Among <i>Neisseria gonorrhoeae</i> Isolates by Anatomic Site of Infection, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021–2023</u> | 7 |
| Figure 4. | <u>Distribution of Azithromycin Minimum Inhibitory Concentrations (MICs) Among <i>Neisseria gonorrhoeae</i> Isolates by Anatomic Site of Infection, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021–2023</u> | 8 |
| Figure 5. | <u>Distribution of Ciprofloxacin Minimum Inhibitory Concentrations (MICs) Among <i>Neisseria gonorrhoeae</i> Isolates by Anatomic Site of Infection, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021–2023</u> | 9 |
| Figure 6. | <u>Distribution of Gentamicin Minimum Inhibitory Concentrations (MICs) Among <i>Neisseria gonorrhoeae</i> Isolates by Anatomic Site of Infection, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021–2023</u> | 10 |
| Figure 7. | <u>Distribution of Penicillin Minimum Inhibitory Concentrations (MICs) Among <i>Neisseria gonorrhoeae</i> Isolates by Anatomic Site of Infection, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021–2023</u> | 11 |
| Figure 8. | <u>Distribution of Tetracycline Minimum Inhibitory Concentrations (MICs) Among <i>Neisseria gonorrhoeae</i> Isolates by Anatomic Site of Infection, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021–2023</u> | 12 |
| Figure 9. | <u>Percentage of <i>Neisseria gonorrhoeae</i> Isolates with an Elevated Minimum Inhibitory Concentration (MIC) to Cefixime by Site of Infection and by Sex and Sex of Sex Partners, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021–2023</u> | 13 |
| Figure 10. | <u>Percentage of <i>Neisseria gonorrhoeae</i> Isolates with an Elevated Minimum Inhibitory Concentration (MIC) to Ceftriaxone by Site of Infection and by Sex and Sex of Sex Partners, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021–2023</u> | 14 |
| Figure 11. | <u>Percentage of <i>Neisseria gonorrhoeae</i> Isolates with Resistance to Azithromycin by Site of Infection and by Sex and Sex of Sex Partners, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021–2023</u> | 15 |
| Figure 12. | <u>Percentage of <i>Neisseria gonorrhoeae</i> Isolates with Resistance to Ciprofloxacin by Site of Infection and by Sex and Sex of Sex Partners, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021–2023</u> | 16 |
| Figure 13. | <u>Percentage of <i>Neisseria gonorrhoeae</i> Isolates with Resistance to Penicillin by Site of Infection and by Sex and Sex of Sex Partners, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021–2023</u> | 17 |
| Figure 14. | <u>Percentage of <i>Neisseria gonorrhoeae</i> Isolates with Resistance to Tetracycline by Site of Infection and by Sex and Sex of Sex Partners, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021–2023</u> | 18 |

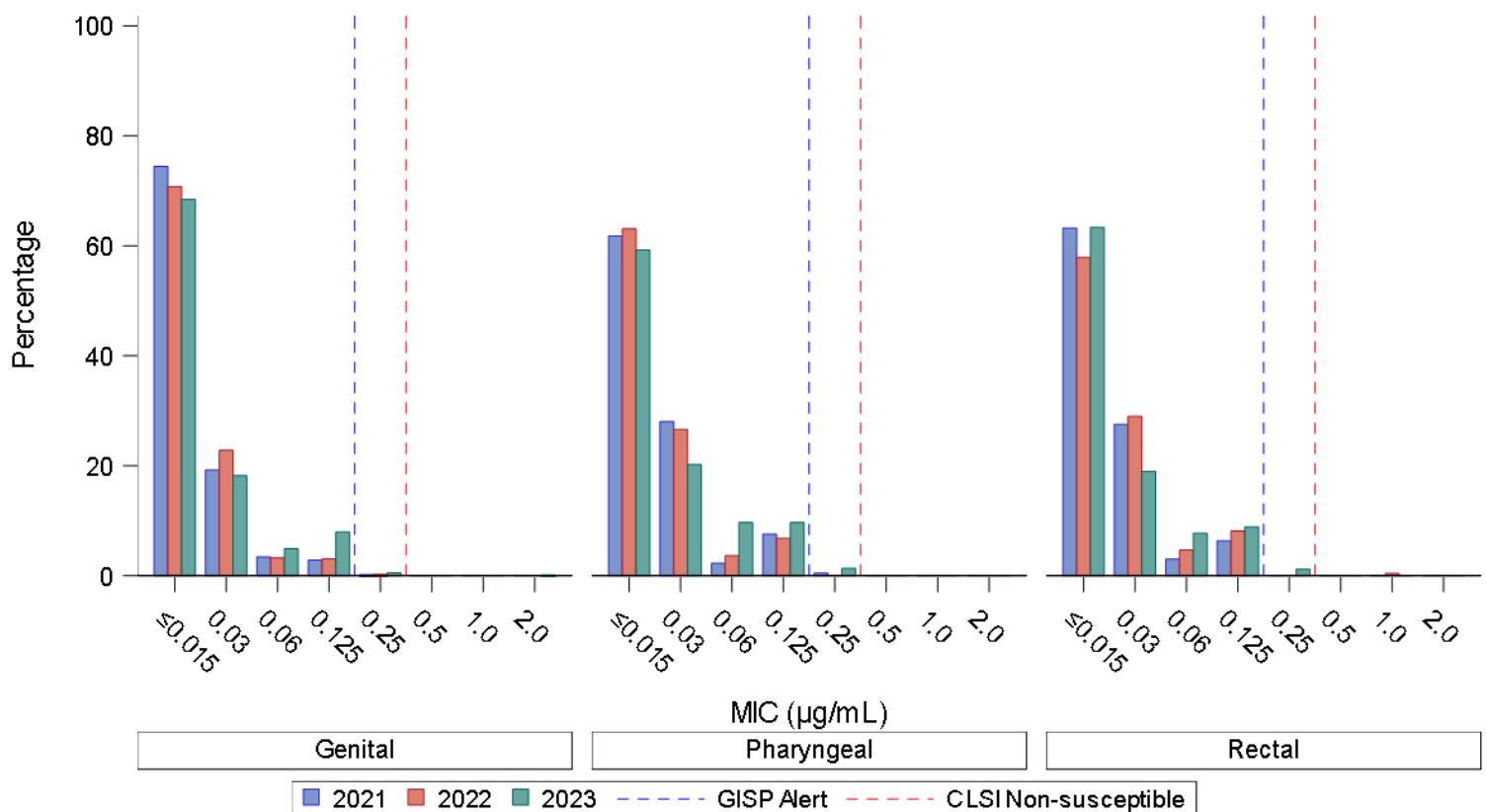
Figure 1. Number of *Neisseria gonorrhoeae* Isolates by Anatomic Site of Infection and by Sex and Sex of Sex Partners, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021-2023



| Site of Infection | Year | MSM | MSW | Women | Total |
|-------------------|------|-----|-----|-------|-------|
| Genital | 2021 | 361 | 632 | 66 | 1059 |
| Genital | 2022 | 333 | 580 | 67 | 980 |
| Genital | 2023 | 380 | 534 | 60 | 974 |
| Pharyngeal | 2021 | 118 | 26 | 40 | 184 |
| Pharyngeal | 2022 | 136 | 34 | 43 | 213 |
| Pharyngeal | 2023 | 151 | 27 | 30 | 208 |
| Rectal | 2021 | 173 | 5 | 6 | 184 |
| Rectal | 2022 | 233 | 3 | 10 | 246 |
| Rectal | 2023 | 222 | 1 | 7 | 230 |

MSM = Men who have sex with men; MSW = Men who have sex with women only.

Figure 2. Distribution of Cefixime Minimum Inhibitory Concentrations (MICs) Among *Neisseria gonorrhoeae* Isolates by Anatomic Site of Infection, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021-2023



| Site of Infection | Year | ≤0.015 n (%) | 0.03 n (%) | 0.06 n (%) | 0.125 n (%) | 0.25 n (%) | 0.5 n (%) | 1.0 n (%) | 2.0 n (%) | Total |
|-------------------|------|-----------------|---------------|---------------|----------------|---------------|--------------|--------------|--------------|-------|
| Genital | 2021 | 855 (74.4) | 221 (19.2) | 39 (3.4) | 32 (2.8) | 2 (0.2) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1149 |
| Genital | 2022 | 702 (70.8) | 226 (22.8) | 32 (3.2) | 30 (3.0) | 2 (0.2) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 992 |
| Genital | 2023 | 690 (68.5) | 183 (18.2) | 49 (4.9) | 80 (7.9) | 5 (0.5) | 0 (0.0) | 0 (0.0) | 1 (0.1) | 1008 |
| Pharyngeal | 2021 | 139 (61.8) | 63 (28.0) | 5 (2.2) | 17 (7.6) | 1 (0.4) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 225 |
| Pharyngeal | 2022 | 140 (63.1) | 59 (26.6) | 8 (3.6) | 15 (6.8) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 222 |
| Pharyngeal | 2023 | 135 (59.2) | 46 (20.2) | 22 (9.6) | 22 (9.6) | 3 (1.3) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 228 |
| Rectal | 2021 | 170 (63.2) | 74 (27.5) | 8 (3.0) | 17 (6.3) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 269 |
| Rectal | 2022 | 150 (57.9) | 75 (29.0) | 12 (4.6) | 21 (8.1) | 0 (0.0) | 0 (0.0) | 1 (0.4) | 0 (0.0) | 259 |
| Rectal | 2023 | 164 (63.3) | 49 (18.9) | 20 (7.7) | 23 (8.9) | 3 (1.2) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 259 |

GISP Alert Value = cefixime MIC ≥ 0.25 µg/mL; CLSI Non-susceptible = cefixime MIC ≥ 0.5 µg/mL.

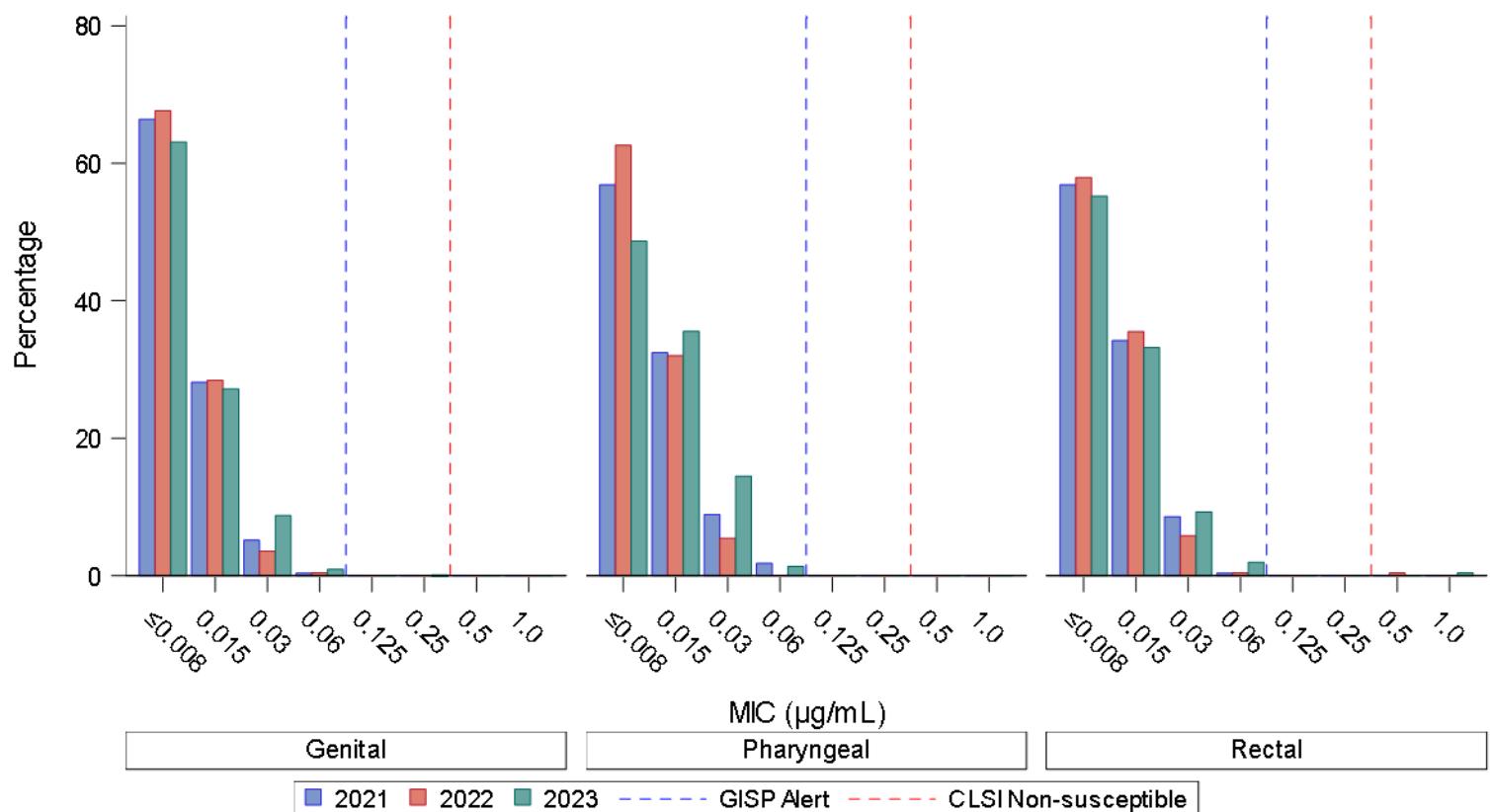
CLSI = Clinical & Laboratory Standards Institute.

Non-susceptible = Category used for isolates when only a susceptible breakpoint has been designated and the MIC is above the susceptible breakpoint.

As of publication, the CLSI has not established a cefixime resistance breakpoint for *N. gonorrhoeae*.

Data for years 2020-2022 may not match previously reported data due to MIC data updates made by reporting labs.

Figure 3. Distribution of Ceftriaxone Minimum Inhibitory Concentrations (MICs) Among *Neisseria gonorrhoeae* Isolates by Anatomic Site of Infection, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021-2023



| Site of Infection | Year | ≤ 0.008 n (%) | 0.015 n (%) | 0.03 n (%) | 0.06 n (%) | 0.125 n (%) | 0.25 n (%) | 0.5 n (%) | 1.0 n (%) | Total |
|-------------------|------|-----------------------|----------------|---------------|---------------|----------------|---------------|--------------|--------------|-------|
| Genital | 2021 | 763 (66.4) | 323 (28.1) | 59 (5.1) | 4 (0.3) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1149 |
| Genital | 2022 | 671 (67.6) | 282 (28.4) | 35 (3.5) | 4 (0.4) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 992 |
| Genital | 2023 | 636 (63.1) | 274 (27.2) | 88 (8.7) | 9 (0.9) | 0 (0.0) | 1 (0.1) | 0 (0.0) | 0 (0.0) | 1008 |
| Pharyngeal | 2021 | 128 (56.9) | 73 (32.4) | 20 (8.9) | 4 (1.8) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 225 |
| Pharyngeal | 2022 | 139 (62.6) | 71 (32.0) | 12 (5.4) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 222 |
| Pharyngeal | 2023 | 111 (48.7) | 81 (35.5) | 33 (14.5) | 3 (1.3) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 228 |
| Rectal | 2021 | 153 (56.9) | 92 (34.2) | 23 (8.6) | 1 (0.4) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 269 |
| Rectal | 2022 | 150 (57.9) | 92 (35.5) | 15 (5.8) | 1 (0.4) | 0 (0.0) | 0 (0.0) | 1 (0.4) | 0 (0.0) | 259 |
| Rectal | 2023 | 143 (55.2) | 86 (33.2) | 24 (9.3) | 5 (1.9) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (0.4) | 259 |

GISP Alert Value = ceftriaxone MIC $\geq 0.125 \mu\text{g/mL}$; CLSI Non-susceptible = ceftriaxone MIC $\geq 0.5 \mu\text{g/mL}$.

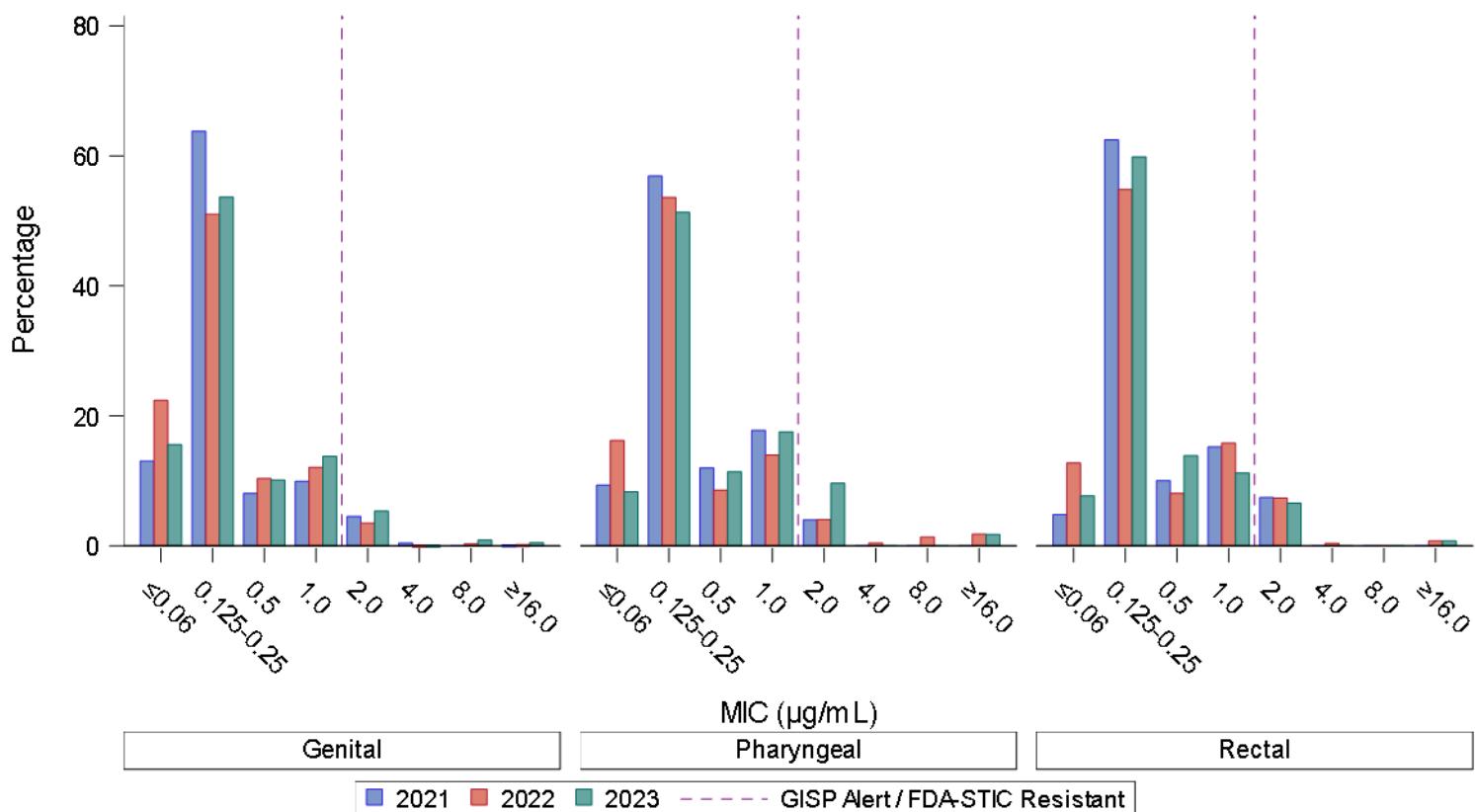
CLSI = Clinical & Laboratory Standards Institute.

Non-susceptible = Category used for isolates when only a susceptible breakpoint has been designated and the MIC is above the susceptible breakpoint.

As of publication, the CLSI has not established a ceftriaxone resistance breakpoint for *N. gonorrhoeae*.

Data for years 2020-2022 may not match previously reported data due to MIC data updates made by reporting labs.

Figure 4. Distribution of Azithromycin Minimum Inhibitory Concentrations (MICs) Among *Neisseria gonorrhoeae* Isolates by Anatomic Site of Infection, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021-2023



| Site of Infection | Year | ≤ 0.06 n (%) | $0.125-0.25$ n (%) | 0.5 n (%) | 1.0 n (%) | 2.0 n (%) | 4.0 n (%) | 8.0 n (%) | ≥ 16.0 n (%) | Total |
|-------------------|------|----------------------|-----------------------|----------------|----------------|----------------|----------------|----------------|----------------------|-------|
| Genital | 2021 | 150 (13.1) | 733 (63.8) | 93 (8.1) | 114 (9.9) | 52 (4.5) | 5 (0.4) | 0 (0.0) | 2 (0.2) | 1149 |
| Genital | 2022 | 222 (22.4) | 506 (51.0) | 103 (10.4) | 120 (12.1) | 35 (3.5) | 1 (0.1) | 3 (0.3) | 2 (0.2) | 992 |
| Genital | 2023 | 157 (15.6) | 541 (53.7) | 102 (10.1) | 139 (13.8) | 54 (5.4) | 1 (0.1) | 9 (0.9) | 5 (0.5) | 1008 |
| Pharyngeal | 2021 | 21 (9.3) | 128 (56.9) | 27 (12.0) | 40 (17.8) | 9 (4.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 225 |
| Pharyngeal | 2022 | 36 (16.2) | 119 (53.6) | 19 (8.6) | 31 (14.0) | 9 (4.1) | 1 (0.5) | 3 (1.4) | 4 (1.8) | 222 |
| Pharyngeal | 2023 | 19 (8.3) | 117 (51.3) | 26 (11.4) | 40 (17.5) | 22 (9.6) | 0 (0.0) | 0 (0.0) | 4 (1.8) | 228 |
| Rectal | 2021 | 13 (4.8) | 168 (62.5) | 27 (10.0) | 41 (15.2) | 20 (7.4) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 269 |
| Rectal | 2022 | 33 (12.7) | 142 (54.8) | 21 (8.1) | 41 (15.8) | 19 (7.3) | 1 (0.4) | 0 (0.0) | 2 (0.8) | 259 |
| Rectal | 2023 | 20 (7.7) | 155 (59.8) | 36 (13.9) | 29 (11.2) | 17 (6.6) | 0 (0.0) | 0 (0.0) | 2 (0.8) | 259 |

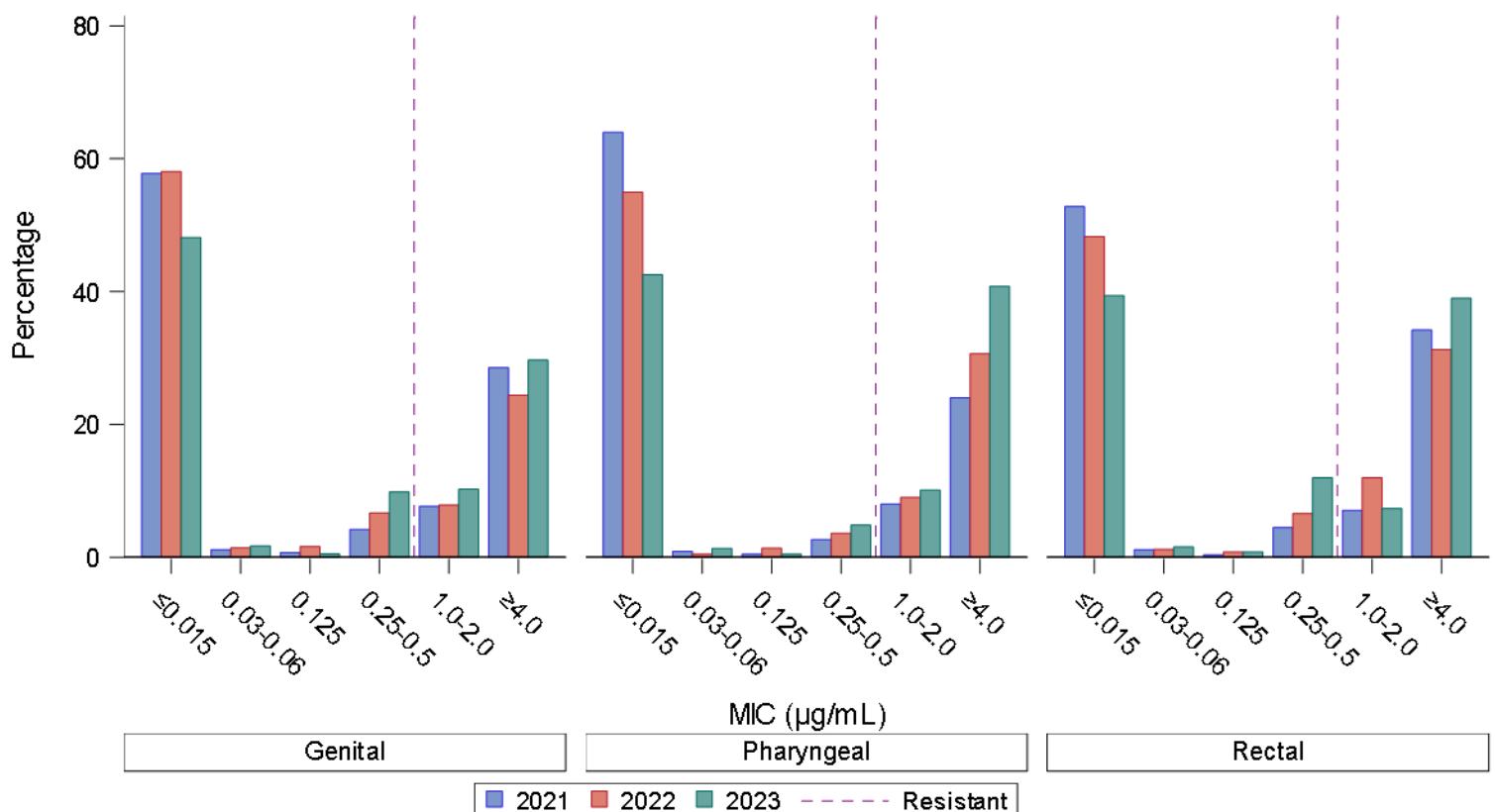
GISP Alert Value: azithromycin MIC $\geq 2.0 \mu\text{g/mL}$; FDA-STIC Resistant = azithromycin MIC $\geq 2.0 \mu\text{g/mL}$.

FDA-STIC = FDA-Recognized Antimicrobial Susceptibility Test Interpretive Criteria.

In 2025, azithromycin resistance was established as $\geq 2.0 \mu\text{g/mL}$ (FDA-STIC).

Data for years 2020-2022 may not match previously reported data due to MIC data updates made by reporting labs.

Figure 5. Distribution of Ciprofloxacin Minimum Inhibitory Concentrations (MICs) Among *Neisseria gonorrhoeae* Isolates by Anatomic Site of Infection, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021-2023

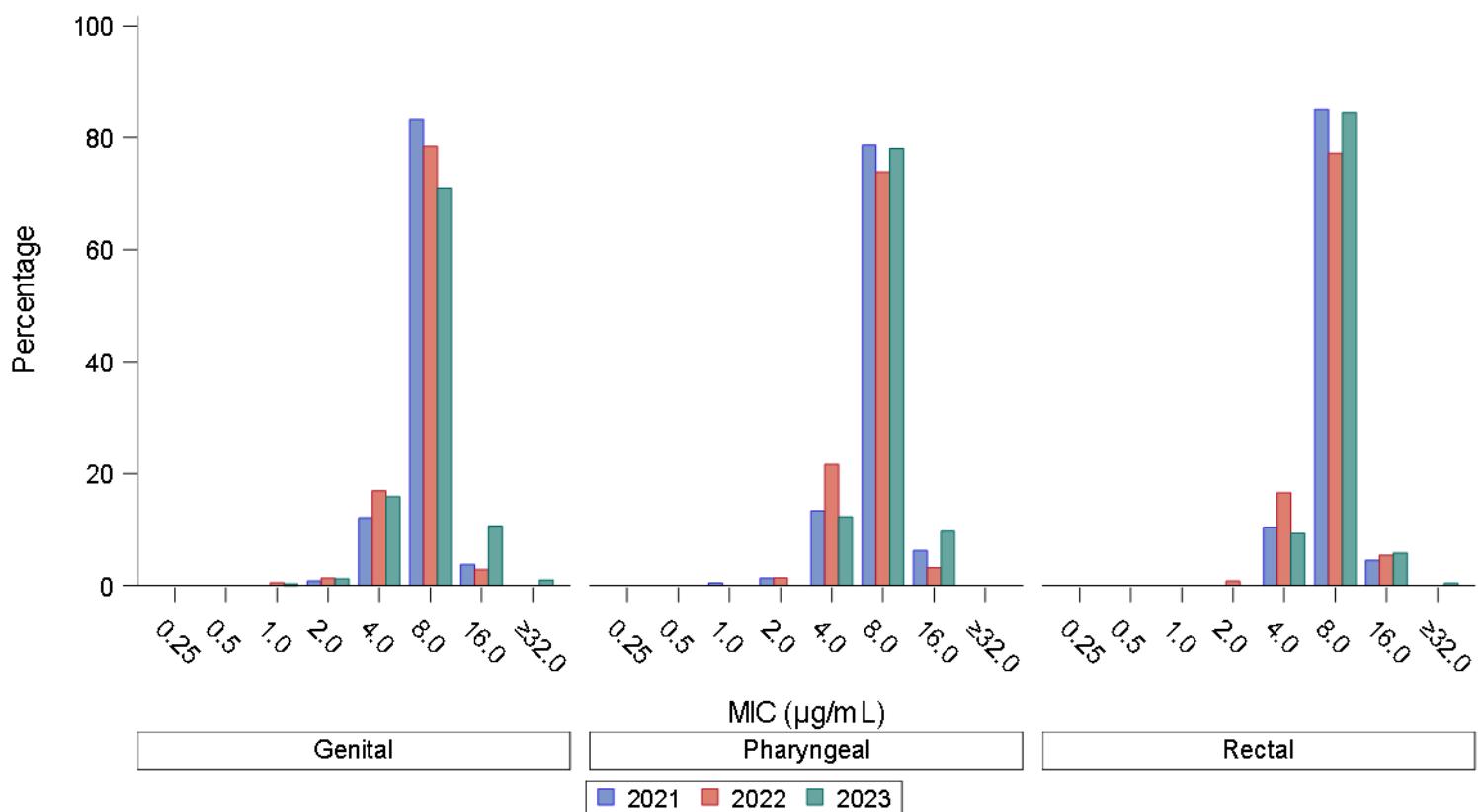


| Site of Infection | Year | ≤0.015 n (%) | 0.03-0.06 n (%) | 0.125 n (%) | 0.25-0.5 n (%) | 1.0-2.0 n (%) | ≥4.0 n (%) | Total |
|-------------------|------|--------------|-----------------|-------------|----------------|---------------|------------|-------|
| Genital | 2021 | 664 (57.8) | 13 (1.1) | 8 (0.7) | 48 (4.2) | 88 (7.7) | 328 (28.5) | 1149 |
| Genital | 2022 | 576 (58.1) | 14 (1.4) | 16 (1.6) | 66 (6.7) | 78 (7.9) | 242 (24.4) | 992 |
| Genital | 2023 | 485 (48.1) | 17 (1.7) | 5 (0.5) | 99 (9.8) | 103 (10.2) | 299 (29.7) | 1008 |
| Pharyngeal | 2021 | 144 (64.0) | 2 (0.9) | 1 (0.4) | 6 (2.7) | 18 (8.0) | 54 (24.0) | 225 |
| Pharyngeal | 2022 | 122 (55.0) | 1 (0.5) | 3 (1.4) | 8 (3.6) | 20 (9.0) | 68 (30.6) | 222 |
| Pharyngeal | 2023 | 97 (42.5) | 3 (1.3) | 1 (0.4) | 11 (4.8) | 23 (10.1) | 93 (40.8) | 228 |
| Rectal | 2021 | 142 (52.8) | 3 (1.1) | 1 (0.4) | 12 (4.5) | 19 (7.1) | 92 (34.2) | 269 |
| Rectal | 2022 | 125 (48.3) | 3 (1.2) | 2 (0.8) | 17 (6.6) | 31 (12.0) | 81 (31.3) | 259 |
| Rectal | 2023 | 102 (39.4) | 4 (1.5) | 2 (0.8) | 31 (12.0) | 19 (7.3) | 101 (39.0) | 259 |

Ciprofloxacin resistance MIC $\geq 1.0 \mu\text{g/mL}$.

Data for years 2020-2022 may not match previously reported data due to MIC data updates made by reporting labs.

Figure 6. Distribution of Gentamicin Minimum Inhibitory Concentrations (MICs) Among *Neisseria gonorrhoeae* Isolates by Anatomic Site of Infection, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021-2023

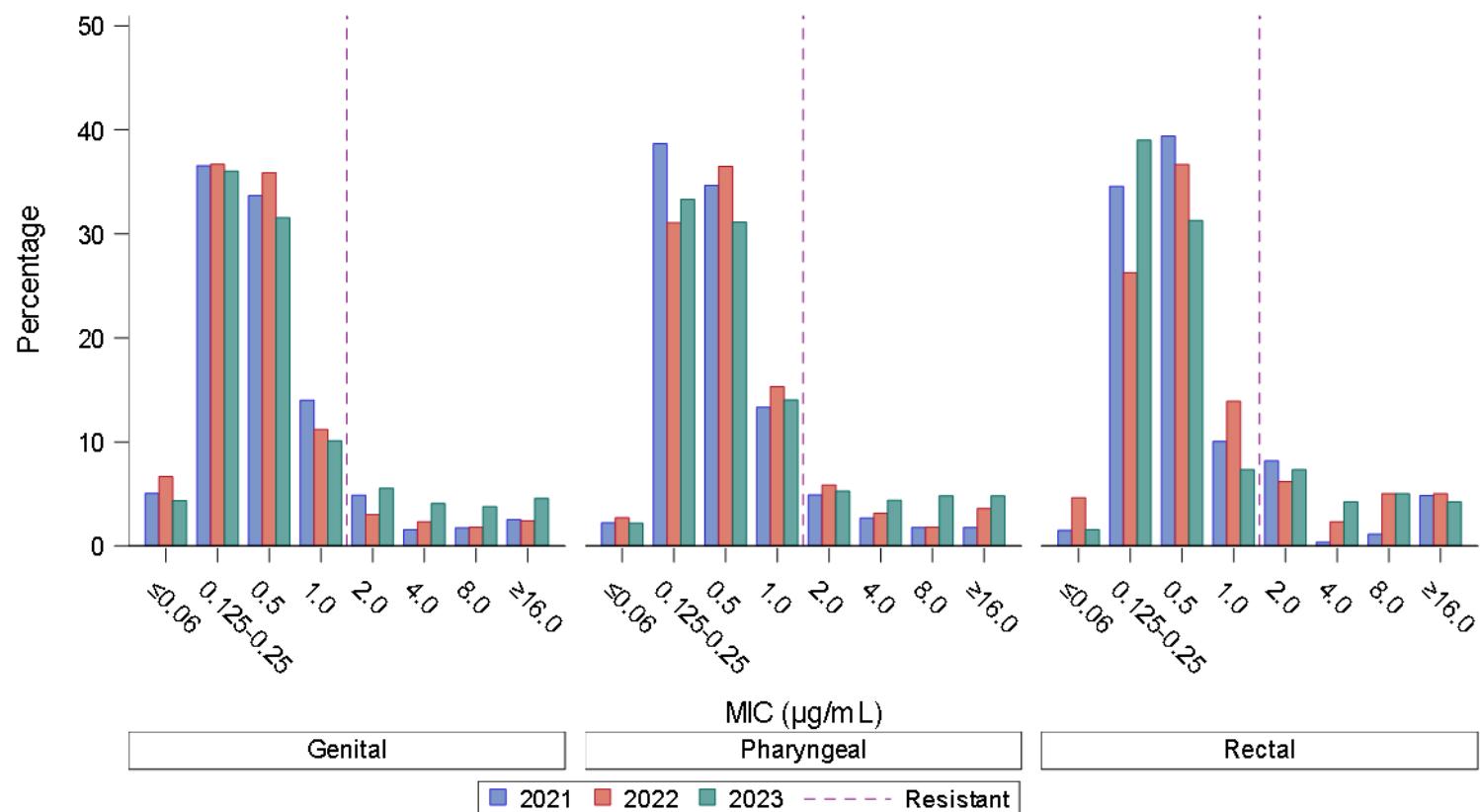


| Site of Infection | Year | 0.25 n (%) | 0.5 n (%) | 1.0 n (%) | 2.0 n (%) | 4.0 n (%) | 8.0 n (%) | 16.0 n (%) | ≥32.0 n (%) | Total |
|-------------------|------|---------------|--------------|--------------|--------------|---------------|---------------|---------------|----------------|-------|
| Genital | 2021 | 0 (0.0) | 0 (0.0) | 0 (0.0) | 9 (0.8) | 139 (12.1) | 958 (83.4) | 43 (3.7) | 0 (0.0) | 1149 |
| Genital | 2022 | 0 (0.0) | 0 (0.0) | 5 (0.5) | 13 (1.3) | 168 (16.9) | 778 (78.4) | 28 (2.8) | 0 (0.0) | 992 |
| Genital | 2023 | 0 (0.0) | 0 (0.0) | 3 (0.3) | 12 (1.2) | 160 (15.9) | 716 (71.0) | 107 (10.6) | 10 (1.0) | 1008 |
| Pharyngeal | 2021 | 0 (0.0) | 0 (0.0) | 1 (0.4) | 3 (1.3) | 30 (13.3) | 177 (78.7) | 14 (6.2) | 0 (0.0) | 225 |
| Pharyngeal | 2022 | 0 (0.0) | 0 (0.0) | 0 (0.0) | 3 (1.4) | 48 (21.6) | 164 (73.9) | 7 (3.2) | 0 (0.0) | 222 |
| Pharyngeal | 2023 | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 28 (12.3) | 178 (78.1) | 22 (9.6) | 0 (0.0) | 228 |
| Rectal | 2021 | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 28 (10.4) | 229 (85.1) | 12 (4.5) | 0 (0.0) | 269 |
| Rectal | 2022 | 0 (0.0) | 0 (0.0) | 0 (0.0) | 2 (0.8) | 43 (16.6) | 200 (77.2) | 14 (5.4) | 0 (0.0) | 259 |
| Rectal | 2023 | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 24 (9.3) | 219 (84.6) | 15 (5.8) | 1 (0.4) | 259 |

As of publication, the Clinical & Laboratory Standards Institute (CLSI) criteria for susceptibility and resistance to gentamicin have not been established for *N. gonorrhoeae*. A GISP alert value for gentamicin has not been determined.

Data for years 2020-2022 may not match previously reported data due to MIC data updates made by reporting labs.

Figure 7. Distribution of Penicillin Minimum Inhibitory Concentrations (MICs) Among *Neisseria gonorrhoeae* Isolates by Anatomic Site of Infection, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021-2023



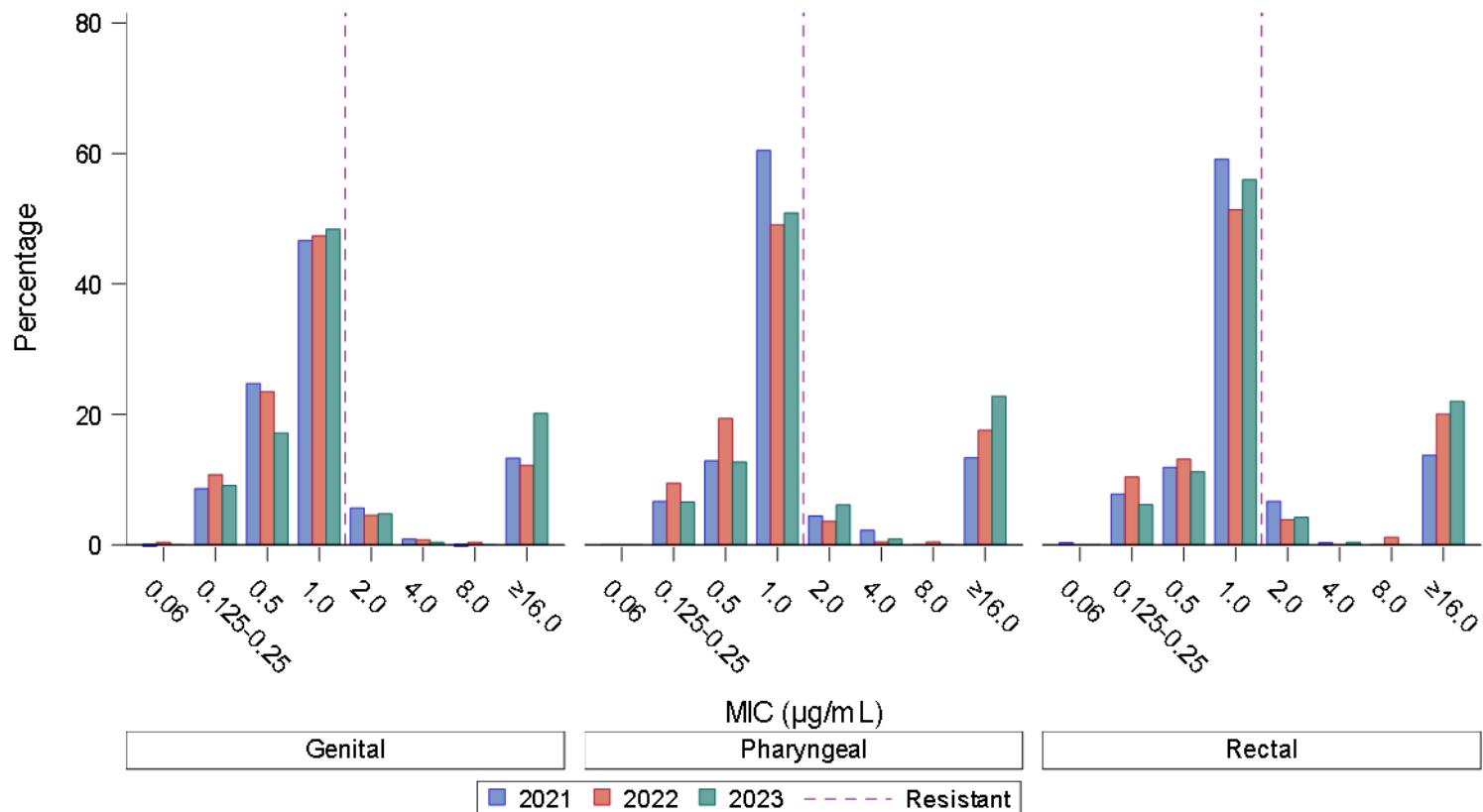
| Site of Infection | Year | ≤ 0.06 n (%) | 0.125-0.25 n (%) | 0.5 n (%) | 1.0 n (%) | 2.0 n (%) | 4.0 n (%) | 8.0 n (%) | ≥ 16.0 n (%) | Total |
|-------------------|------|----------------------|---------------------|---------------|---------------|--------------|--------------|--------------|----------------------|-------|
| Genital | 2021 | 58 (5.0) | 420 (36.6) | 387 (33.7) | 161 (14.0) | 56 (4.9) | 18 (1.6) | 20 (1.7) | 29 (2.5) | 1149 |
| Genital | 2022 | 66 (6.7) | 364 (36.7) | 356 (35.9) | 111 (11.2) | 30 (3.0) | 23 (2.3) | 18 (1.8) | 24 (2.4) | 992 |
| Genital | 2023 | 44 (4.4) | 363 (36.0) | 318 (31.5) | 102 (10.1) | 56 (5.6) | 41 (4.1) | 38 (3.8) | 46 (4.6) | 1008 |
| Pharyngeal | 2021 | 5 (2.2) | 87 (38.7) | 78 (34.7) | 30 (13.3) | 11 (4.9) | 6 (2.7) | 4 (1.8) | 4 (1.8) | 225 |
| Pharyngeal | 2022 | 6 (2.7) | 69 (31.1) | 81 (36.5) | 34 (15.3) | 13 (5.9) | 7 (3.2) | 4 (1.8) | 8 (3.6) | 222 |
| Pharyngeal | 2023 | 5 (2.2) | 76 (33.3) | 71 (31.1) | 32 (14.0) | 12 (5.3) | 10 (4.4) | 11 (4.8) | 11 (4.8) | 228 |
| Rectal | 2021 | 4 (1.5) | 93 (34.6) | 106 (39.4) | 27 (10.0) | 22 (8.2) | 1 (0.4) | 3 (1.1) | 13 (4.8) | 269 |
| Rectal | 2022 | 12 (4.6) | 68 (26.3) | 95 (36.7) | 36 (13.9) | 16 (6.2) | 6 (2.3) | 13 (5.0) | 13 (5.0) | 259 |
| Rectal | 2023 | 4 (1.5) | 101 (39.0) | 81 (31.3) | 19 (7.3) | 19 (7.3) | 11 (4.2) | 13 (5.0) | 11 (4.2) | 259 |

Penicillin resistance based on Clinical & Laboratory Standards Institute (CLSI) MIC criteria only (MIC $\geq 2.0 \mu\text{g/mL}$).

Additional data on β -lactamase positivity are not depicted.

Data for years 2020-2022 may not match previously reported data due to MIC data updates made by reporting labs.

Figure 8. Distribution of Tetracycline Minimum Inhibitory Concentrations (MICs) Among *Neisseria gonorrhoeae* Isolates by Anatomic Site of Infection, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021-2023

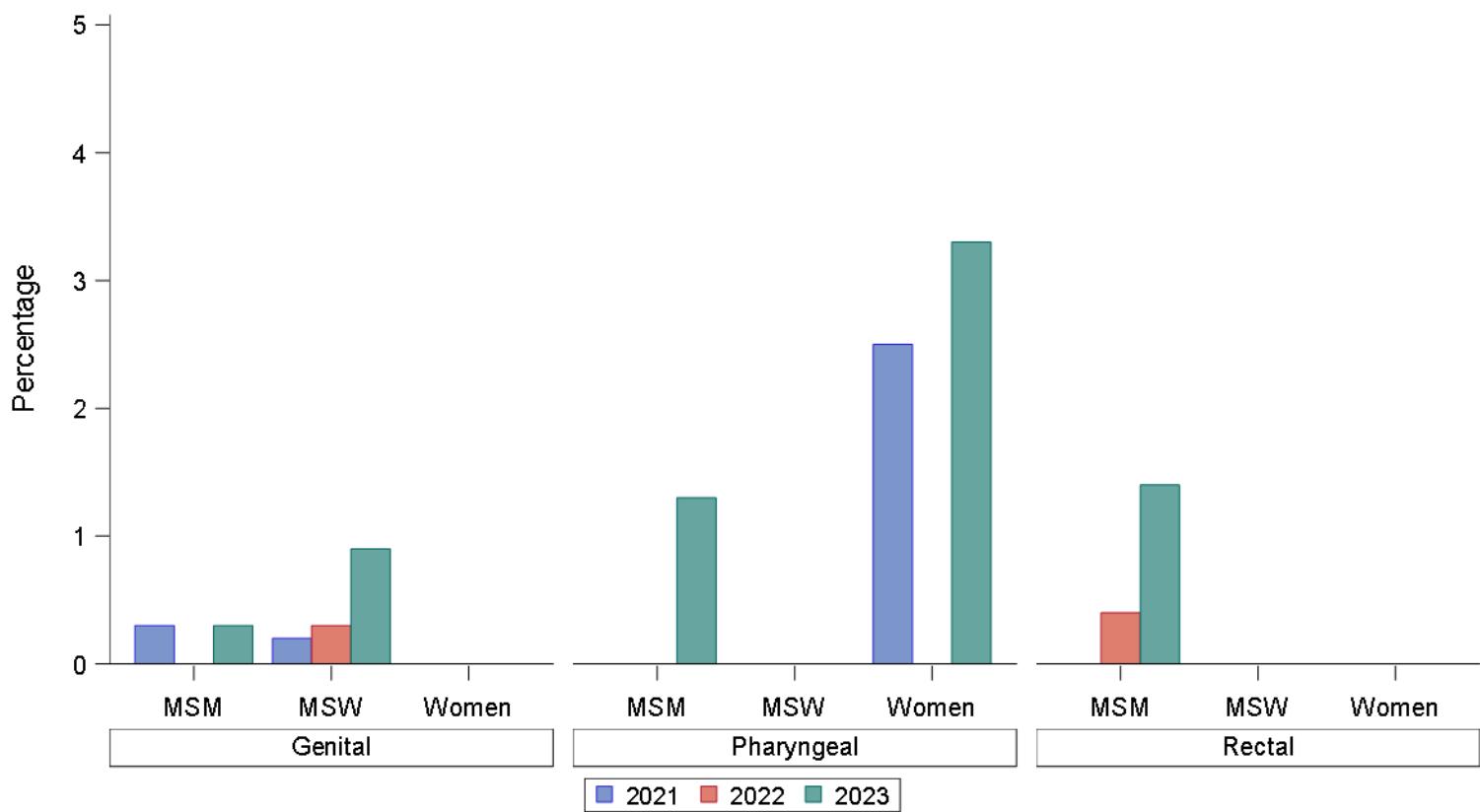


| Site of Infection | Year | 0.06 n (%) | 0.125-0.25 n (%) | 0.5 n (%) | 1.0 n (%) | 2.0 n (%) | 4.0 n (%) | 8.0 n (%) | ≥ 16.0 n (%) | Total |
|-------------------|------|------------|------------------|------------|------------|-----------|-----------|-----------|-------------------|-------|
| Genital | 2021 | 1 (0.1) | 99 (8.6) | 284 (24.7) | 536 (46.6) | 65 (5.7) | 10 (0.9) | 1 (0.1) | 153 (13.3) | 1149 |
| Genital | 2022 | 4 (0.4) | 107 (10.8) | 233 (23.5) | 470 (47.4) | 45 (4.5) | 8 (0.8) | 4 (0.4) | 121 (12.2) | 992 |
| Genital | 2023 | 0 (0.0) | 92 (9.1) | 173 (17.2) | 488 (48.4) | 48 (4.8) | 4 (0.4) | 0 (0.0) | 203 (20.1) | 1008 |
| Pharyngeal | 2021 | 0 (0.0) | 15 (6.7) | 29 (12.9) | 136 (60.4) | 10 (4.4) | 5 (2.2) | 0 (0.0) | 30 (13.3) | 225 |
| Pharyngeal | 2022 | 0 (0.0) | 21 (9.5) | 43 (19.4) | 109 (49.1) | 8 (3.6) | 1 (0.5) | 1 (0.5) | 39 (17.6) | 222 |
| Pharyngeal | 2023 | 0 (0.0) | 15 (6.6) | 29 (12.7) | 116 (50.9) | 14 (6.1) | 2 (0.9) | 0 (0.0) | 52 (22.8) | 228 |
| Rectal | 2021 | 1 (0.4) | 21 (7.8) | 32 (11.9) | 159 (59.1) | 18 (6.7) | 1 (0.4) | 0 (0.0) | 37 (13.8) | 269 |
| Rectal | 2022 | 0 (0.0) | 27 (10.4) | 34 (13.1) | 133 (51.4) | 10 (3.9) | 0 (0.0) | 3 (1.2) | 52 (20.1) | 259 |
| Rectal | 2023 | 0 (0.0) | 16 (6.2) | 29 (11.2) | 145 (56.0) | 11 (4.2) | 1 (0.4) | 0 (0.0) | 57 (22.0) | 259 |

Tetracycline resistance MIC $\geq 2.0 \mu\text{g/mL}$.

Data for years 2020-2022 may not match previously reported data due to MIC data updates made by reporting labs.

Figure 9. Percentage of *Neisseria gonorrhoeae* Isolates with an Elevated Minimum Inhibitory Concentration (MIC) to Cefixime by Site of Infection and by Sex and Sex of Sex Partners, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021-2023



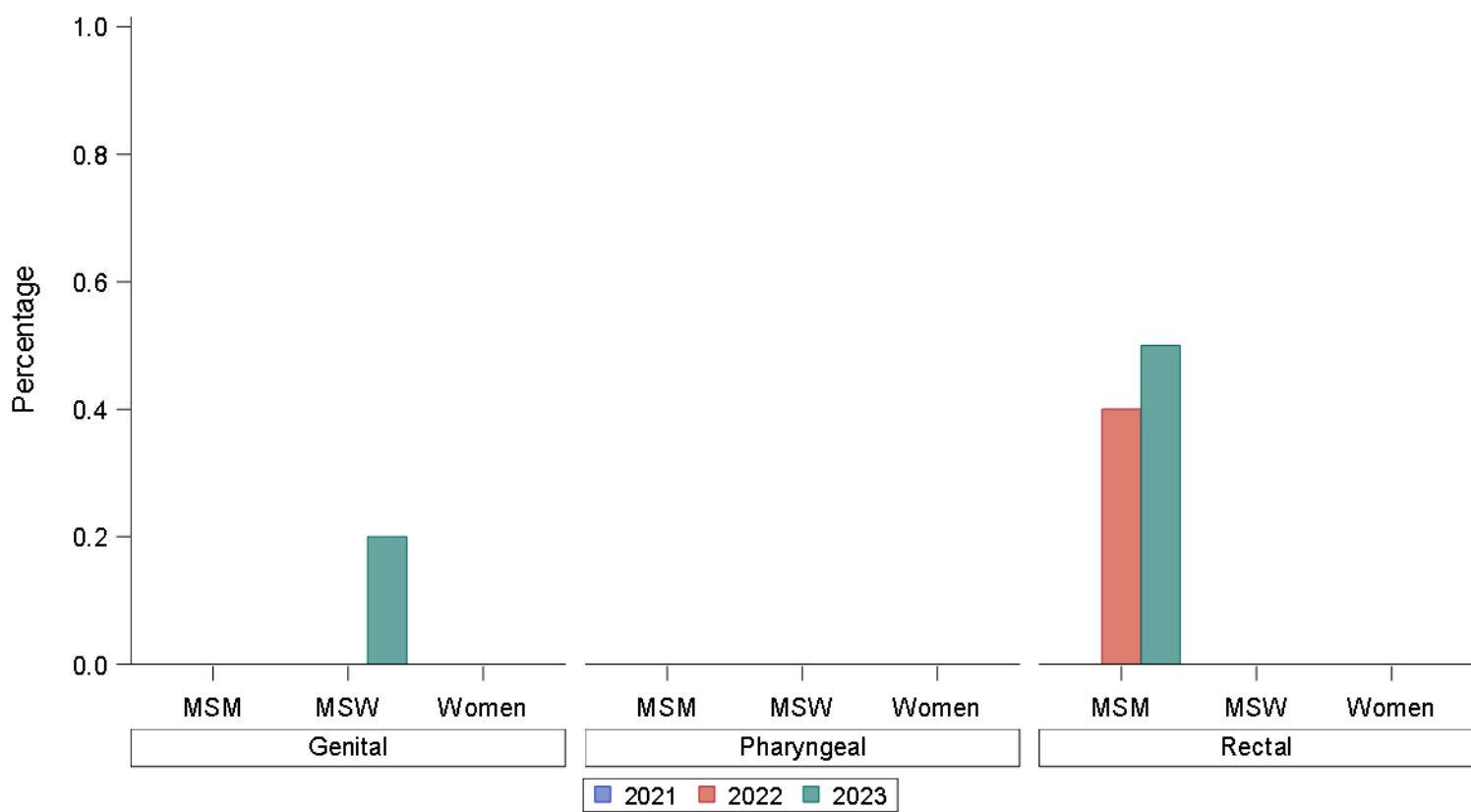
| Site of Infection | Year | MSM n (%) | MSW n (%) | Women n (%) | Total |
|-------------------|------|-----------|-----------|-------------|-------|
| Genital | 2021 | 1 (0.3) | 1 (0.2) | 0 (0.0) | 2 |
| Genital | 2022 | 0 (0.0) | 2 (0.3) | 0 (0.0) | 2 |
| Genital | 2023 | 1 (0.3) | 5 (0.9) | 0 (0.0) | 6 |
| Pharyngeal | 2021 | 0 (0.0) | 0 (0.0) | 1 (2.5) | 1 |
| Pharyngeal | 2022 | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 |
| Pharyngeal | 2023 | 2 (1.3) | 0 (0.0) | 1 (3.3) | 3 |
| Rectal | 2021 | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 |
| Rectal | 2022 | 1 (0.4) | 0 (0.0) | 0 (0.0) | 1 |
| Rectal | 2023 | 3 (1.4) | 0 (0.0) | 0 (0.0) | 3 |

MSM = Men who have sex with men; MSW = Men who have sex with women only.

Cefixime elevated MIC ≥ 0.25 $\mu\text{g/mL}$.

Data for years 2020-2022 may not match previously reported data due to MIC data updates made by reporting labs.

Figure 10. Percentage of *Neisseria gonorrhoeae* Isolates with an Elevated Minimum Inhibitory Concentration (MIC) to Ceftriaxone by Site of Infection and by Sex and Sex of Sex Partners, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021-2023



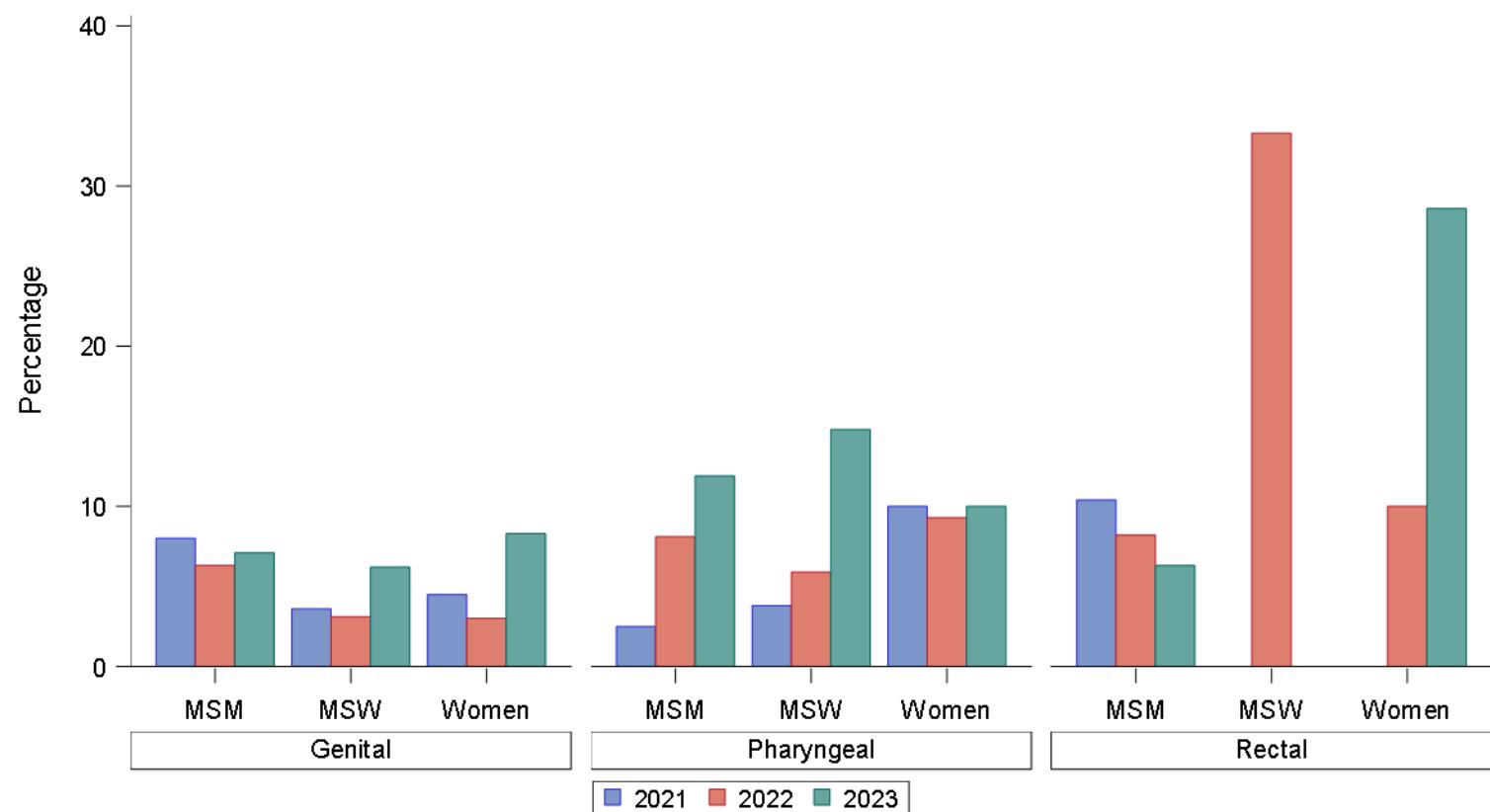
| Site of Infection | Year | MSM n (%) | MSW n (%) | Women n (%) | Total |
|-------------------|------|-----------|-----------|-------------|-------|
| Genital | 2021 | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 |
| Genital | 2022 | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 |
| Genital | 2023 | 0 (0.0) | 1 (0.2) | 0 (0.0) | 1 |
| Pharyngeal | 2021 | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 |
| Pharyngeal | 2022 | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 |
| Pharyngeal | 2023 | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 |
| Rectal | 2021 | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 |
| Rectal | 2022 | 1 (0.4) | 0 (0.0) | 0 (0.0) | 1 |
| Rectal | 2023 | 1 (0.5) | 0 (0.0) | 0 (0.0) | 1 |

MSM = Men who have sex with men; MSW = Men who have sex with women only.

Ceftriaxone elevated MIC ≥ 0.125 µg/mL.

Data for years 2020-2022 may not match previously reported data due to MIC data updates made by reporting labs.

Figure 11. Percentage of *Neisseria gonorrhoeae* Isolates with Resistance to Azithromycin by Site of Infection and by Sex and Sex of Sex Partners, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021-2023



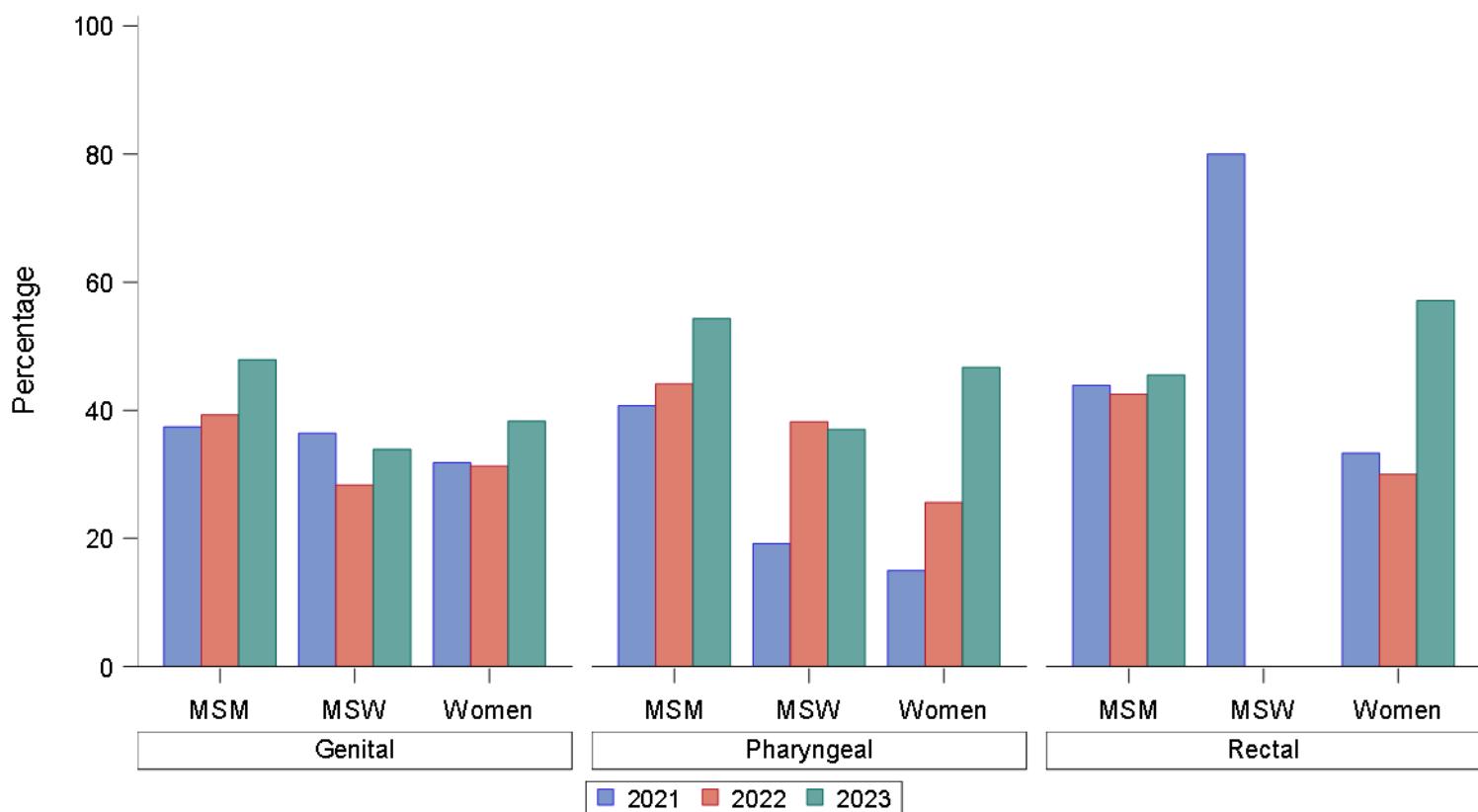
| Site of Infection | Year | MSM n (%) | MSW n (%) | Women n (%) | Total |
|-------------------|------|-----------|-----------|-------------|-------|
| Genital | 2021 | 29 (8.0) | 23 (3.6) | 3 (4.5) | 55 |
| Genital | 2022 | 21 (6.3) | 18 (3.1) | 2 (3.0) | 41 |
| Genital | 2023 | 27 (7.1) | 33 (6.2) | 5 (8.3) | 65 |
| Pharyngeal | 2021 | 3 (2.5) | 1 (3.8) | 4 (10.0) | 8 |
| Pharyngeal | 2022 | 11 (8.1) | 2 (5.9) | 4 (9.3) | 17 |
| Pharyngeal | 2023 | 18 (11.9) | 4 (14.8) | 3 (10.0) | 25 |
| Rectal | 2021 | 18 (10.4) | 0 (0.0) | 0 (0.0) | 18 |
| Rectal | 2022 | 19 (8.2) | 1 (33.3) | 1 (10.0) | 21 |
| Rectal | 2023 | 14 (6.3) | 0 (0.0) | 2 (28.6) | 16 |

MSM = Men who have sex with men; MSW = Men who have sex with women only.

Azithromycin resistance ≥ 2.0 μ g/mL. (In 2025, FDA-Recognized Antimicrobial Susceptibility Test Interpretive Criteria established azithromycin resistance as ≥ 2.0 μ g/mL).

Data for years 2020-2022 may not match previously reported data due to MIC data updates made by reporting labs.

Figure 12. Percentage of *Neisseria gonorrhoeae* Isolates with Resistance to Ciprofloxacin by Site of Infection and by Sex and Sex of Sex Partners, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021-2023



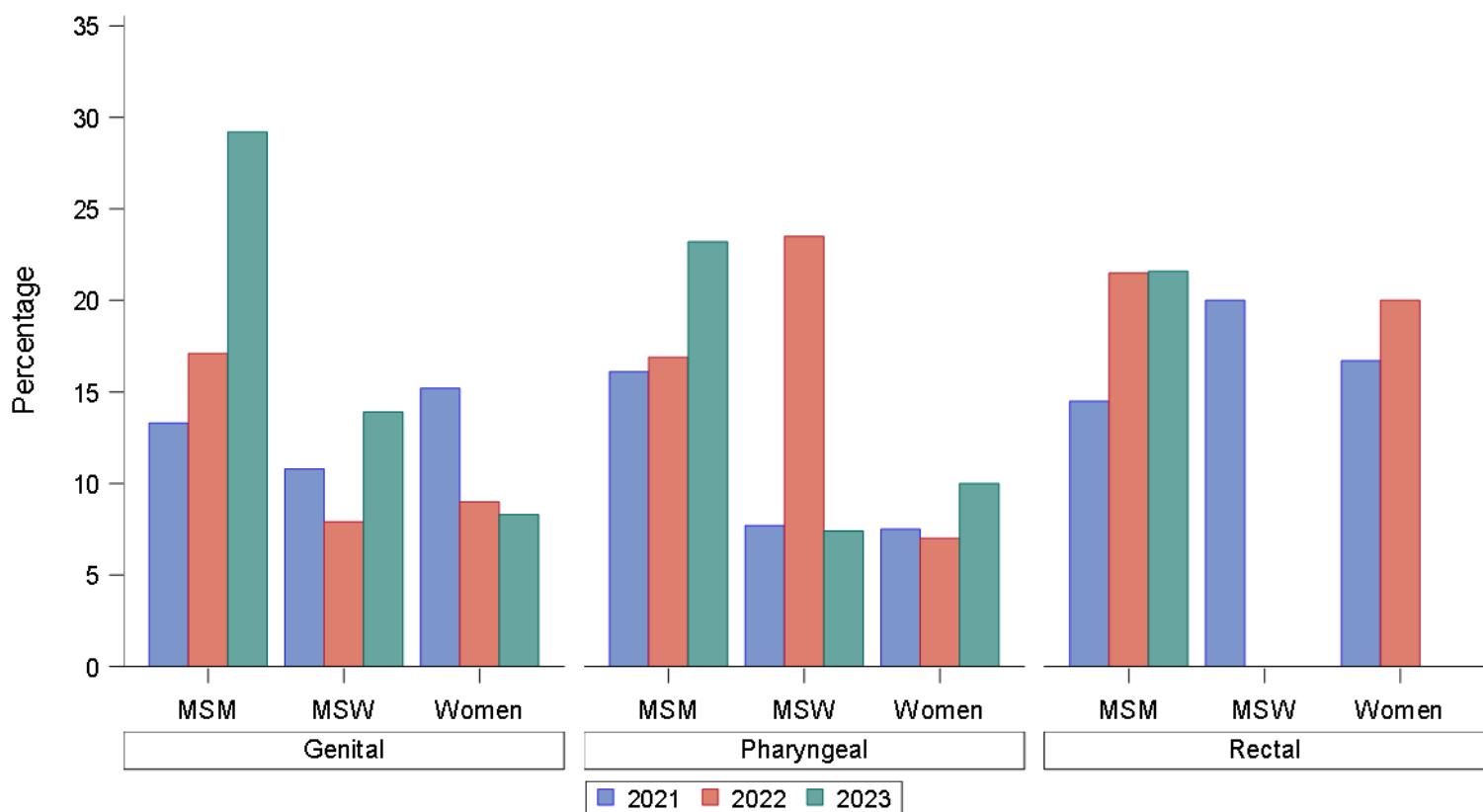
| Site of Infection | Year | MSM n (%) | MSW n (%) | Women n (%) | Total |
|-------------------|------|------------|------------|-------------|-------|
| Genital | 2021 | 135 (37.4) | 230 (36.4) | 21 (31.8) | 386 |
| Genital | 2022 | 131 (39.3) | 164 (28.3) | 21 (31.3) | 316 |
| Genital | 2023 | 182 (47.9) | 181 (33.9) | 23 (38.3) | 386 |
| Pharyngeal | 2021 | 48 (40.7) | 5 (19.2) | 6 (15.0) | 59 |
| Pharyngeal | 2022 | 60 (44.1) | 13 (38.2) | 11 (25.6) | 84 |
| Pharyngeal | 2023 | 82 (54.3) | 10 (37.0) | 14 (46.7) | 106 |
| Rectal | 2021 | 76 (43.9) | 4 (80.0) | 2 (33.3) | 82 |
| Rectal | 2022 | 99 (42.5) | 0 (0.0) | 3 (30.0) | 102 |
| Rectal | 2023 | 101 (45.5) | 0 (0.0) | 4 (57.1) | 105 |

MSM = Men who have sex with men; MSW = Men who have sex with women only.

Ciprofloxacin resistance = MIC $\geq 1.0 \mu\text{g/mL}$.

Data for years 2020-2022 may not match previously reported data due to MIC data updates made by reporting labs.

Figure 13. Percentage of *Neisseria gonorrhoeae* Isolates with Resistance to Penicillin by Site of Infection and by Sex and Sex of Sex Partners, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021-2023



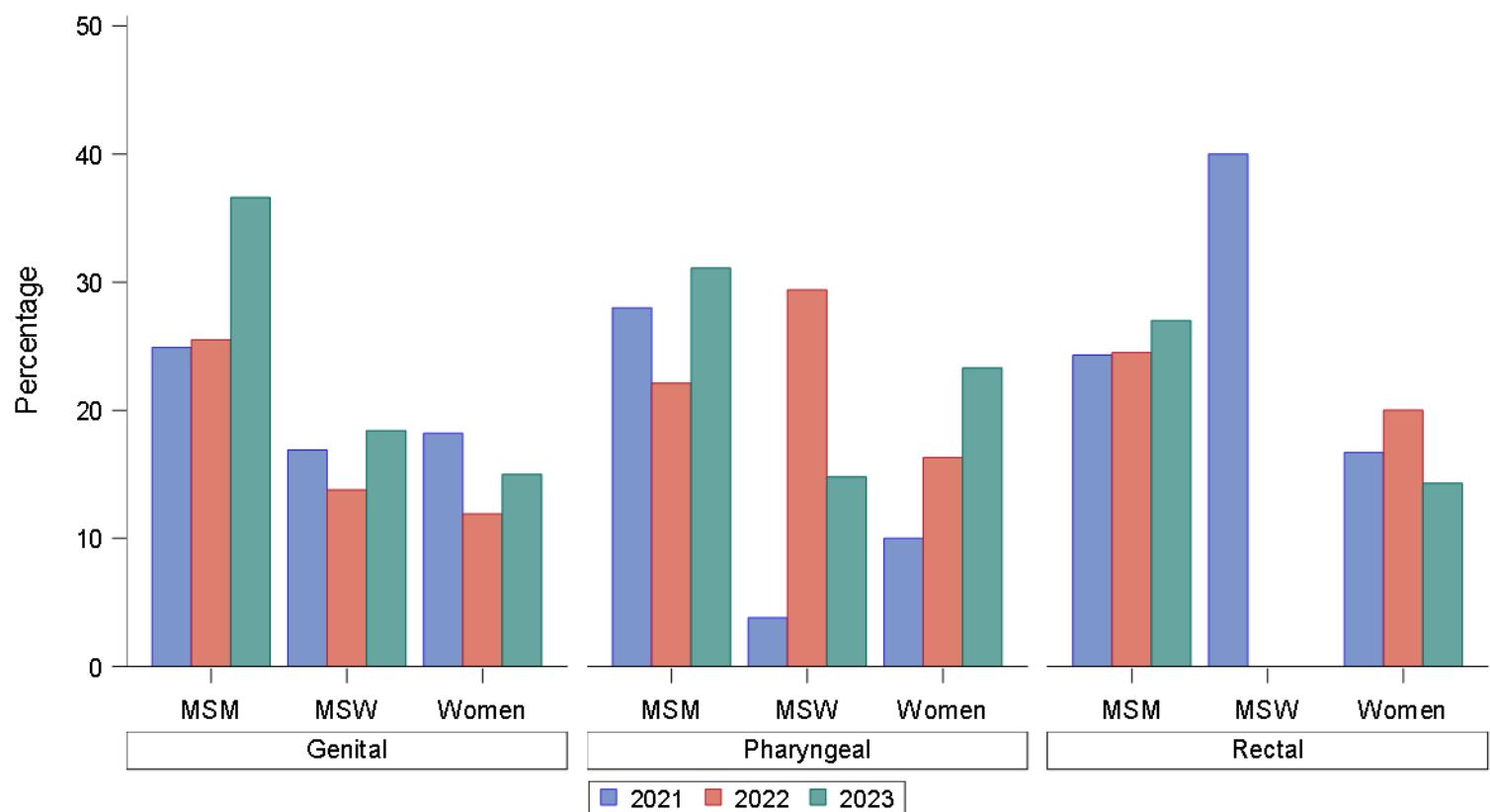
| Site of Infection | Year | MSM n (%) | MSW n (%) | Women n (%) | Total |
|-------------------|------|------------|-----------|-------------|-------|
| Genital | 2021 | 48 (13.3) | 68 (10.8) | 10 (15.2) | 126 |
| Genital | 2022 | 57 (17.1) | 46 (7.9) | 6 (9.0) | 109 |
| Genital | 2023 | 111 (29.2) | 74 (13.9) | 5 (8.3) | 190 |
| Pharyngeal | 2021 | 19 (16.1) | 2 (7.7) | 3 (7.5) | 24 |
| Pharyngeal | 2022 | 23 (16.9) | 8 (23.5) | 3 (7.0) | 34 |
| Pharyngeal | 2023 | 35 (23.2) | 2 (7.4) | 3 (10.0) | 40 |
| Rectal | 2021 | 25 (14.5) | 1 (20.0) | 1 (16.7) | 27 |
| Rectal | 2022 | 50 (21.5) | 0 (0.0) | 2 (20.0) | 52 |
| Rectal | 2023 | 48 (21.6) | 0 (0.0) | 0 (0.0) | 48 |

MSM = Men who have sex with men; MSW = Men who have sex with women only.

Penicillin resistance $\geq 2.0 \mu\text{g/mL}$ or β -lactamase positive.

Data for years 2020-2022 may not match previously reported data due to MIC data updates made by reporting labs.

Figure 14. Percentage of *Neisseria gonorrhoeae* Isolates with Resistance to Tetracycline by Site of Infection and by Sex and Sex of Sex Partners, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2021-2023



| Site of Infection | Year | MSM n (%) | MSW n (%) | Women n (%) | Total |
|-------------------|------|------------|------------|-------------|-------|
| Genital | 2021 | 90 (24.9) | 107 (16.9) | 12 (18.2) | 209 |
| Genital | 2022 | 85 (25.5) | 80 (13.8) | 8 (11.9) | 173 |
| Genital | 2023 | 139 (36.6) | 98 (18.4) | 9 (15.0) | 246 |
| Pharyngeal | 2021 | 33 (28.0) | 1 (3.8) | 4 (10.0) | 38 |
| Pharyngeal | 2022 | 30 (22.1) | 10 (29.4) | 7 (16.3) | 47 |
| Pharyngeal | 2023 | 47 (31.1) | 4 (14.8) | 7 (23.3) | 58 |
| Rectal | 2021 | 42 (24.3) | 2 (40.0) | 1 (16.7) | 45 |
| Rectal | 2022 | 57 (24.5) | 0 (0.0) | 2 (20.0) | 59 |
| Rectal | 2023 | 60 (27.0) | 0 (0.0) | 1 (14.3) | 61 |

MSM = Men who have sex with men; MSW = Men who have sex with women only.

Tetracycline resistance $\geq 2.0 \mu\text{g/mL}$.

Data for years 2020-2022 may not match previously reported data due to MIC data updates made by reporting labs.