

**Sexually  
Transmitted  
Disease  
Surveillance  
2020:  
Enhanced Gonococcal Isolate  
Surveillance Project Profile**

**Division of STD Prevention  
August 2022**

**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

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This report was prepared by:

Sammie Haskin, Alesia Harvey, Sancta St. Cyr, Kristen Kreisel, and Hillard Weinstock, 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 Cau Pham, Brian Raphael, 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.

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## Web Site

The online version of this report is available at <https://www.cdc.gov/std/qisp/default.htm>.

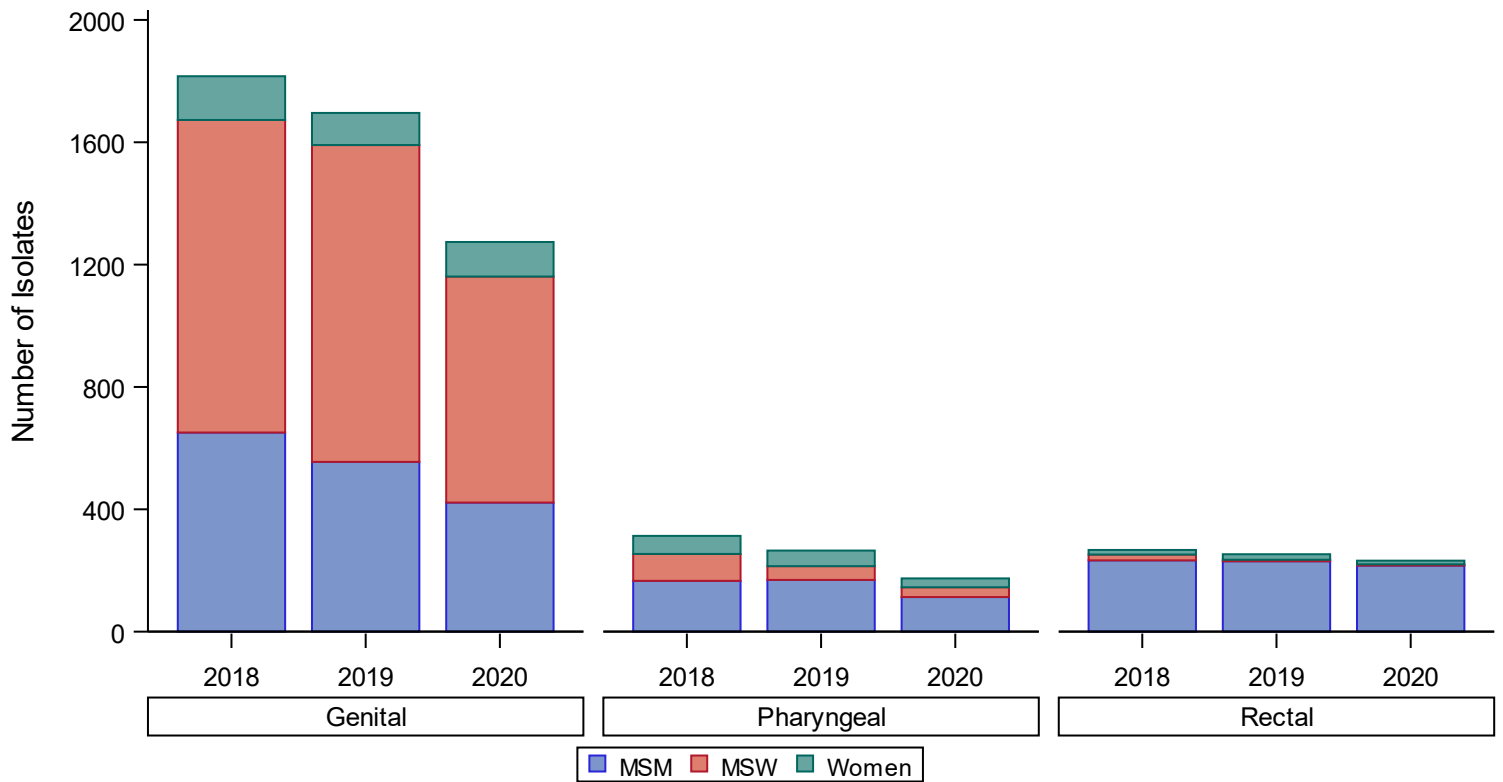
### 2020 Enhanced Gonococcal Isolate Surveillance Project Clinical Sites and Years Participated

Chicago, Illinois (2018–2020)	Minneapolis, Minnesota (2018–2019)	Phoenix, Arizona (2020)
Columbus, Ohio (2018–2020)	New Orleans, Louisiana (2018–2020)	Pontiac, Michigan (2018–2019)
Kalamazoo, Michigan (2018)	Orange County, California (2018–2020)	Portland, Oregon (2018)
Las Vegas, Nevada (2018–2020)	Philadelphia, Pennsylvania (2018–2020)	San Diego, California (2018–2020)
Miami, Florida (2018)		

### 2020 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>
Texas Department of State Health Services <i>Austin, Texas</i>
Washington State Department of Health <i>Seattle, Washington</i>

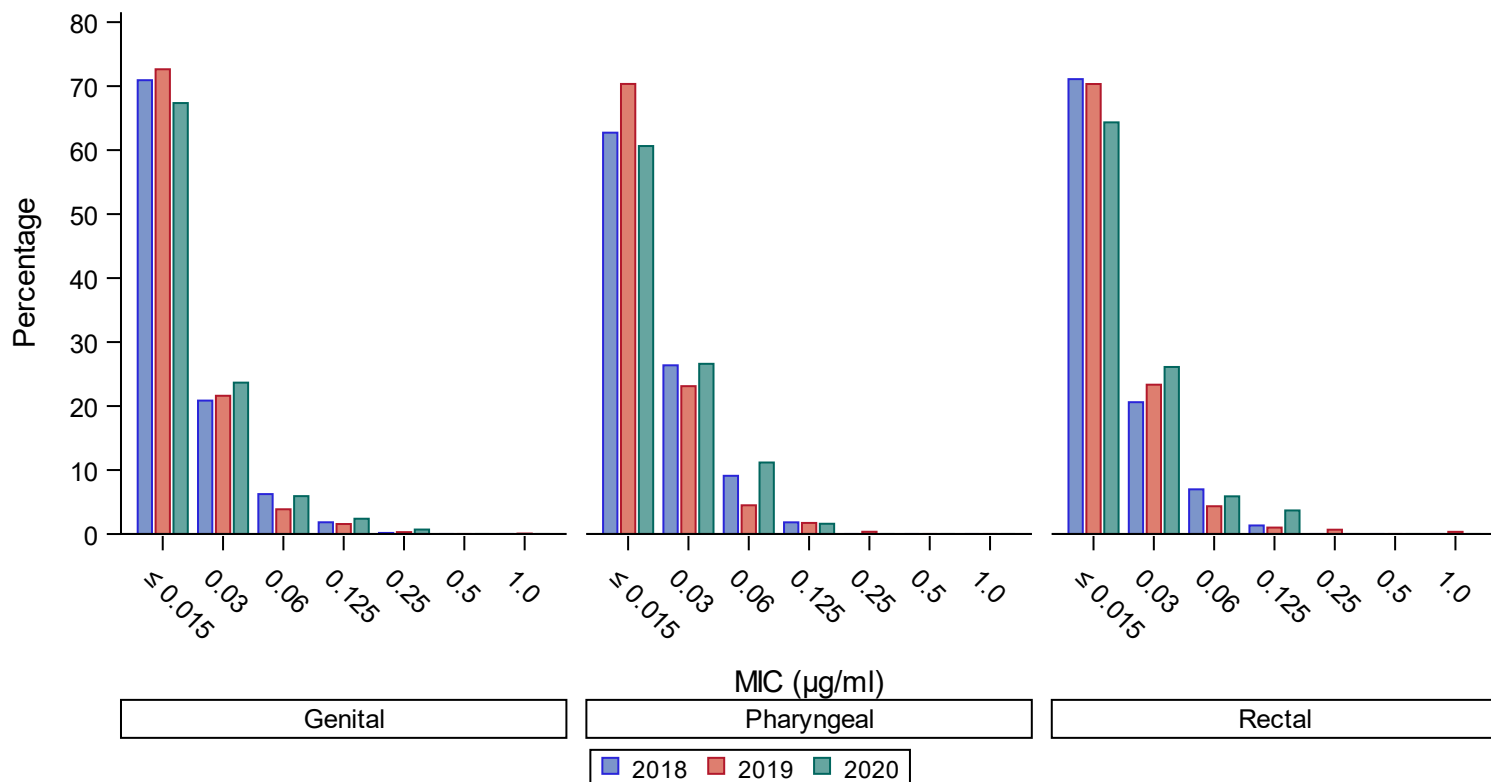
Figure 1. Number of *Neisseria gonorrhoeae* Isolates by Anatomic Site of Infection and by Gender and Gender of Sex Partners, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2018-2020



Site of Infection	Year	MSM	MSW	Women	Total
Genital	2018	651	1022	143	1816
Genital	2019	555	1036	105	1696
Genital	2020	422	739	113	1274
Pharyngeal	2018	166	88	59	313
Pharyngeal	2019	169	45	51	265
Pharyngeal	2020	113	32	29	174
Rectal	2018	233	19	15	267
Rectal	2019	230	5	18	253
Rectal	2020	216	4	12	232

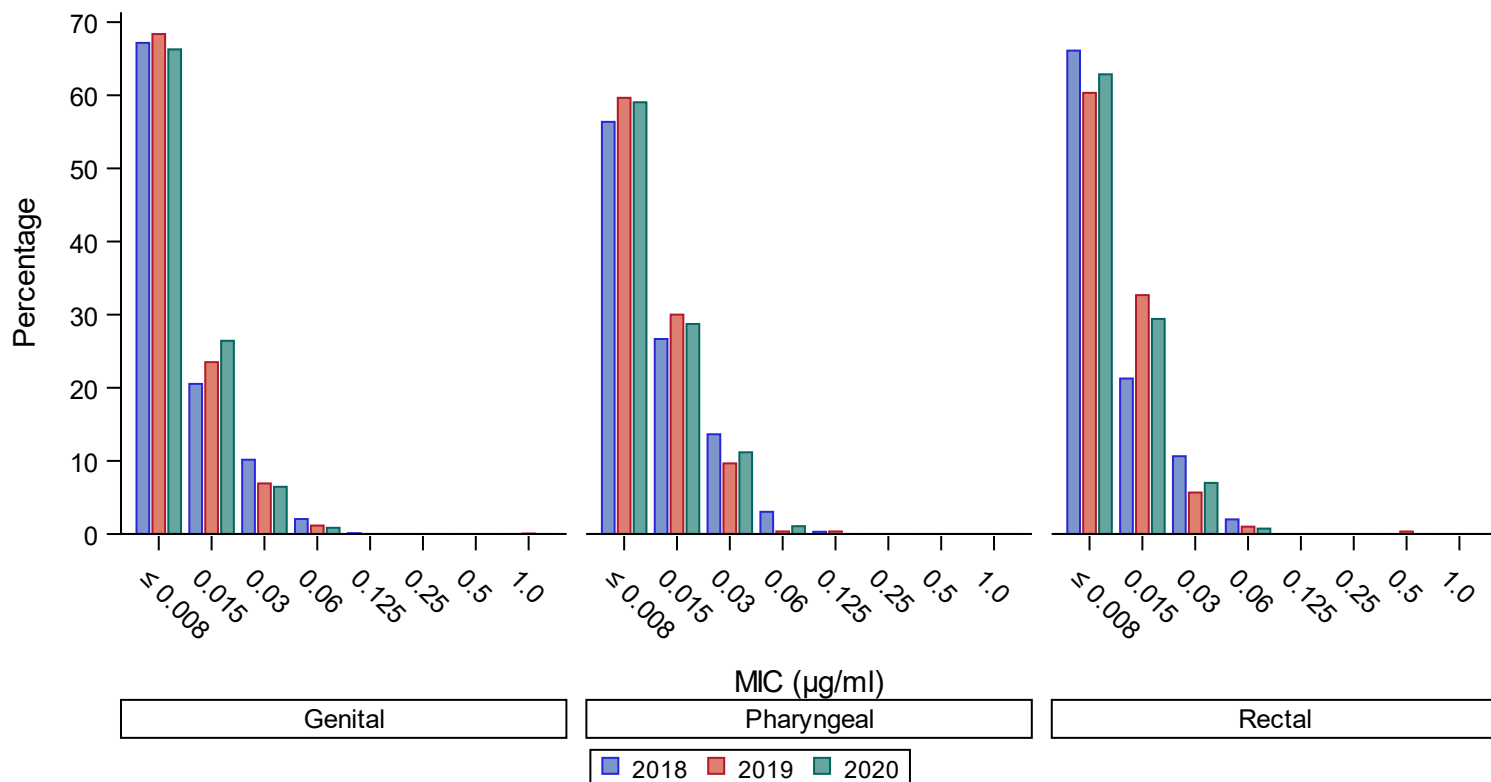
Note: MSM = Gay, bisexual, and other men who have sex with men; MSW = Men who have sex with women only.

Figure 2: Distribution of Cefixime Minimum Inhibitory Concentrations (MICs) Among *Neisseria gonorrhoeae* Isolates by Anatomic Site of Infection, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2018-2020



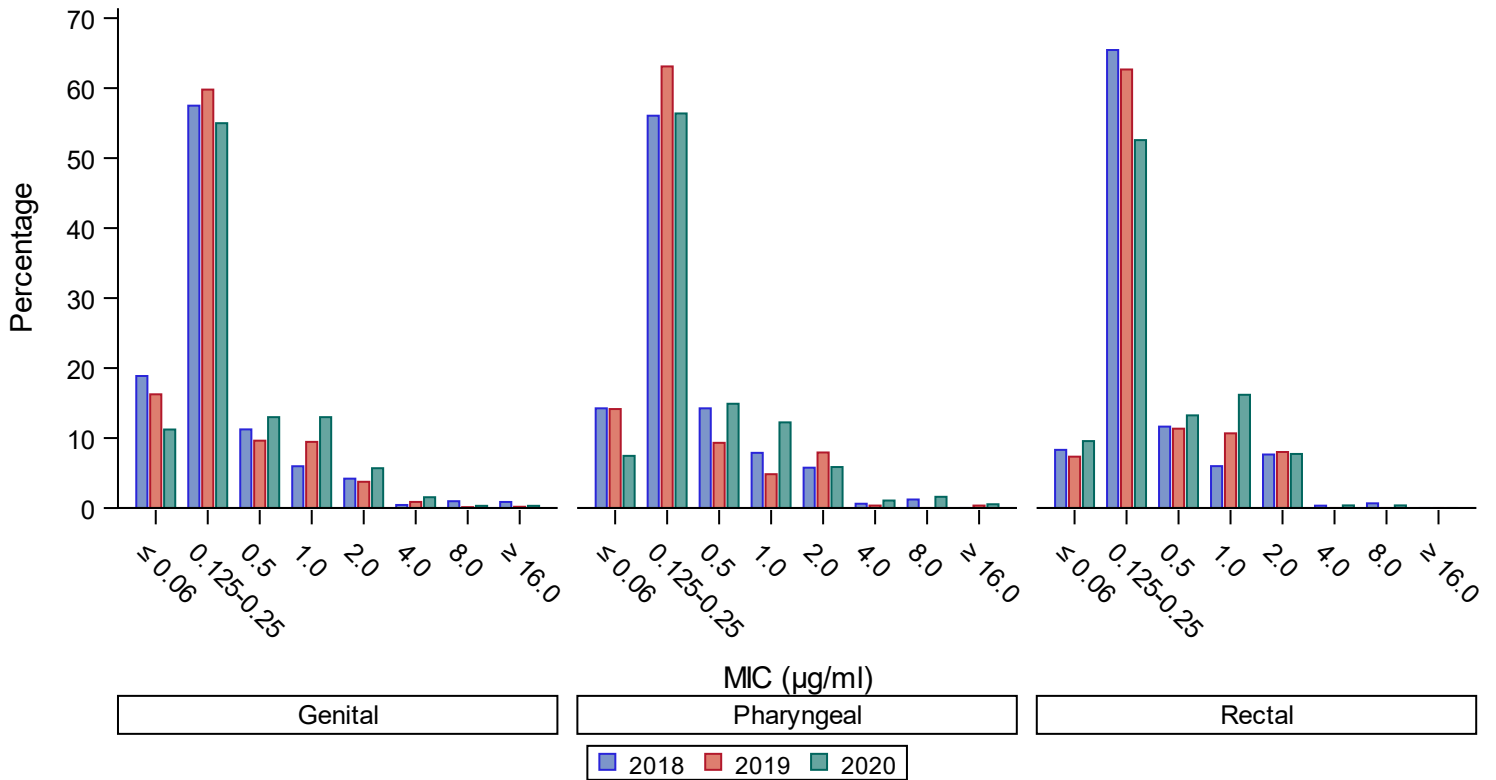
Site of Infection	Year	≤ 0.015 n (%)	0.03 n (%)	0.06 n (%)	0.125 n (%)	0.25 n (%)	0.5 n (%)	1.0 n (%)	Total
Genital	2018	1320 (70.9)	388 (20.8)	116 (6.2)	34 (1.8)	3 (0.2)	0 (0.0)	0 (0.0)	1861
Genital	2019	1261 (72.6)	375 (21.6)	67 (3.9)	27 (1.6)	5 (0.3)	0 (0.0)	1 (0.1)	1736
Genital	2020	877 (67.4)	308 (23.7)	77 (5.9)	31 (2.4)	9 (0.7)	0 (0.0)	0 (0.0)	1302
Pharyngeal	2018	207 (62.7)	87 (26.4)	30 (9.1)	6 (1.8)	0 (0.0)	0 (0.0)	0 (0.0)	330
Pharyngeal	2019	204 (70.3)	67 (23.1)	13 (4.5)	5 (1.7)	1 (0.3)	0 (0.0)	0 (0.0)	290
Pharyngeal	2020	114 (60.6)	50 (26.6)	21 (11.2)	3 (1.6)	0 (0.0)	0 (0.0)	0 (0.0)	188
Rectal	2018	214 (71.1)	62 (20.6)	21 (7.0)	4 (1.3)	0 (0.0)	0 (0.0)	0 (0.0)	301
Rectal	2019	211 (70.3)	70 (23.3)	13 (4.3)	3 (1.0)	2 (0.7)	0 (0.0)	1 (0.3)	300
Rectal	2020	175 (64.3)	71 (26.1)	16 (5.9)	10 (3.7)	0 (0.0)	0 (0.0)	0 (0.0)	272

Figure 3: Distribution of Ceftriaxone Minimum Inhibitory Concentrations (MICs) Among *Neisseria gonorrhoeae* Isolates by Anatomic Site of Infection, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2018-2020



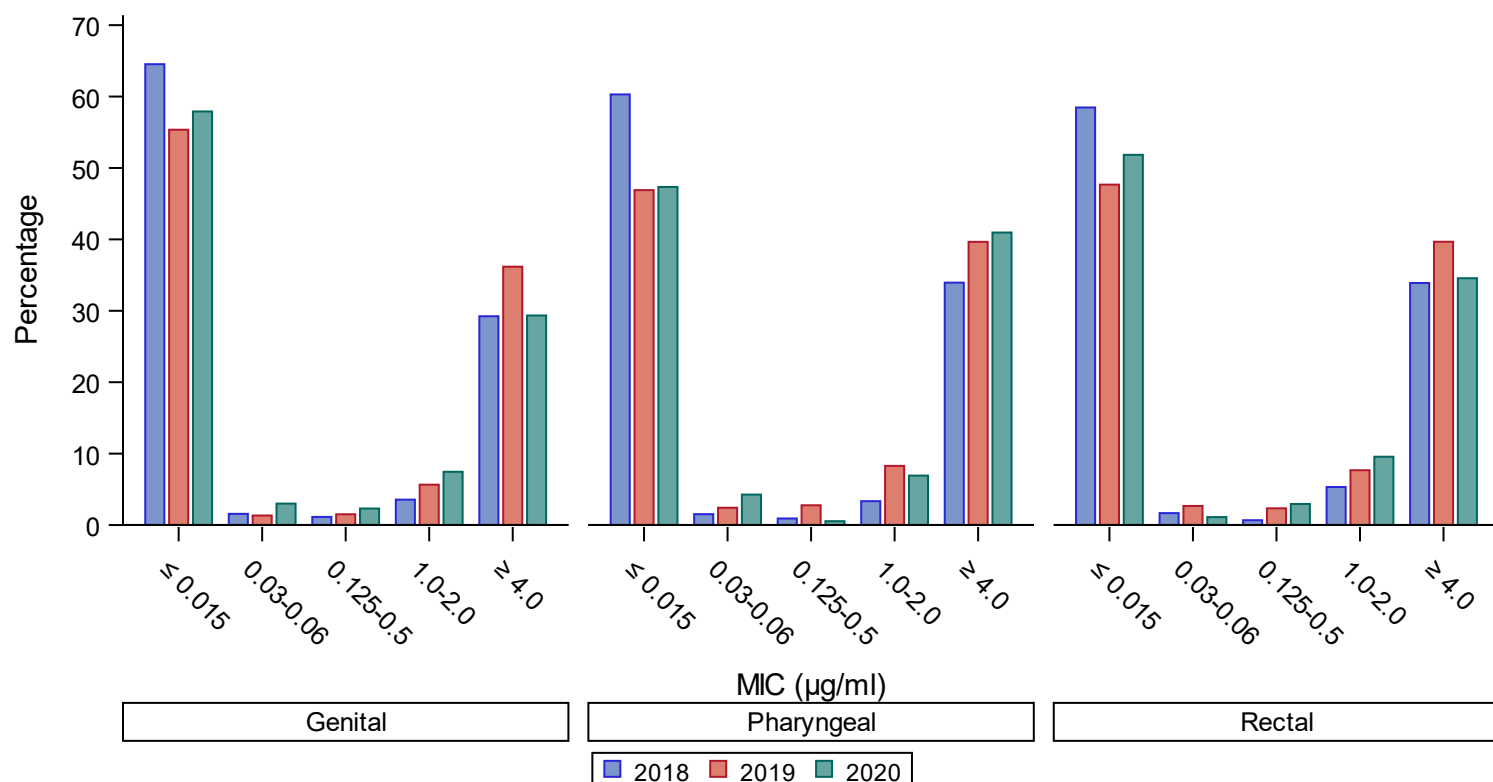
Site of Infection	Year	≤ 0.008 n (%)	0.015 n (%)	0.03 n (%)	0.06 n (%)	0.125 n (%)	0.25 n (%)	0.5 n (%)	1.0 n (%)	Total
Genital	2018	1250 (67.2)	382 (20.5)	189 (10.2)	38 (2.0)	2 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)	1861
Genital	2019	1187 (68.4)	408 (23.5)	120 (6.9)	20 (1.2)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.1)	1736
Genital	2020	863 (66.3)	344 (26.4)	84 (6.5)	11 (0.8)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1302
Pharyngeal	2018	186 (56.4)	88 (26.7)	45 (13.6)	10 (3.0)	1 (0.3)	0 (0.0)	0 (0.0)	0 (0.0)	330
Pharyngeal	2019	173 (59.7)	87 (30.0)	28 (9.7)	1 (0.3)	1 (0.3)	0 (0.0)	0 (0.0)	0 (0.0)	290
Pharyngeal	2020	111 (59.0)	54 (28.7)	21 (11.2)	2 (1.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	188
Rectal	2018	199 (66.1)	64 (21.3)	32 (10.6)	6 (2.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	301
Rectal	2019	181 (60.3)	98 (32.7)	17 (5.7)	3 (1.0)	0 (0.0)	0 (0.0)	1 (0.3)	0 (0.0)	300
Rectal	2020	171 (62.9)	80 (29.4)	19 (7.0)	2 (0.7)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	272

Figure 4: Distribution of Azithromycin Minimum Inhibitory Concentrations (MICs) Among *Neisseria gonorrhoeae* Isolates by Anatomic Site of Infection, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2018-2020



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	2018	351 (18.9)	1070 (57.5)	209 (11.2)	111 (6.0)	78 (4.2)	8 (0.4)	18 (1.0)	16 (0.9)	1861
Genital	2019	282 (16.2)	1038 (59.8)	167 (9.6)	164 (9.4)	65 (3.7)	15 (0.9)	2 (0.1)	3 (0.2)	1736
Genital	2020	146 (11.2)	716 (55.0)	169 (13.0)	169 (13.0)	74 (5.7)	20 (1.5)	4 (0.3)	4 (0.3)	1302
Pharyngeal	2018	47 (14.2)	185 (56.1)	47 (14.2)	26 (7.9)	19 (5.8)	2 (0.6)	4 (1.2)	0 (0.0)	330
Pharyngeal	2019	41 (14.1)	183 (63.1)	27 (9.3)	14 (4.8)	23 (7.9)	1 (0.3)	0 (0.0)	1 (0.3)	290
Pharyngeal	2020	14 (7.4)	106 (56.4)	28 (14.9)	23 (12.2)	11 (5.9)	2 (1.1)	3 (1.6)	1 (0.5)	188
Rectal	2018	25 (8.3)	197 (65.4)	35 (11.6)	18 (6.0)	23 (7.6)	1 (0.3)	2 (0.7)	0 (0.0)	301
Rectal	2019	22 (7.3)	188 (62.7)	34 (11.3)	32 (10.7)	24 (8.0)	0 (0.0)	0 (0.0)	0 (0.0)	300
Rectal	2020	26 (9.6)	143 (52.6)	36 (13.2)	44 (16.2)	21 (7.7)	1 (0.4)	1 (0.4)	0 (0.0)	272

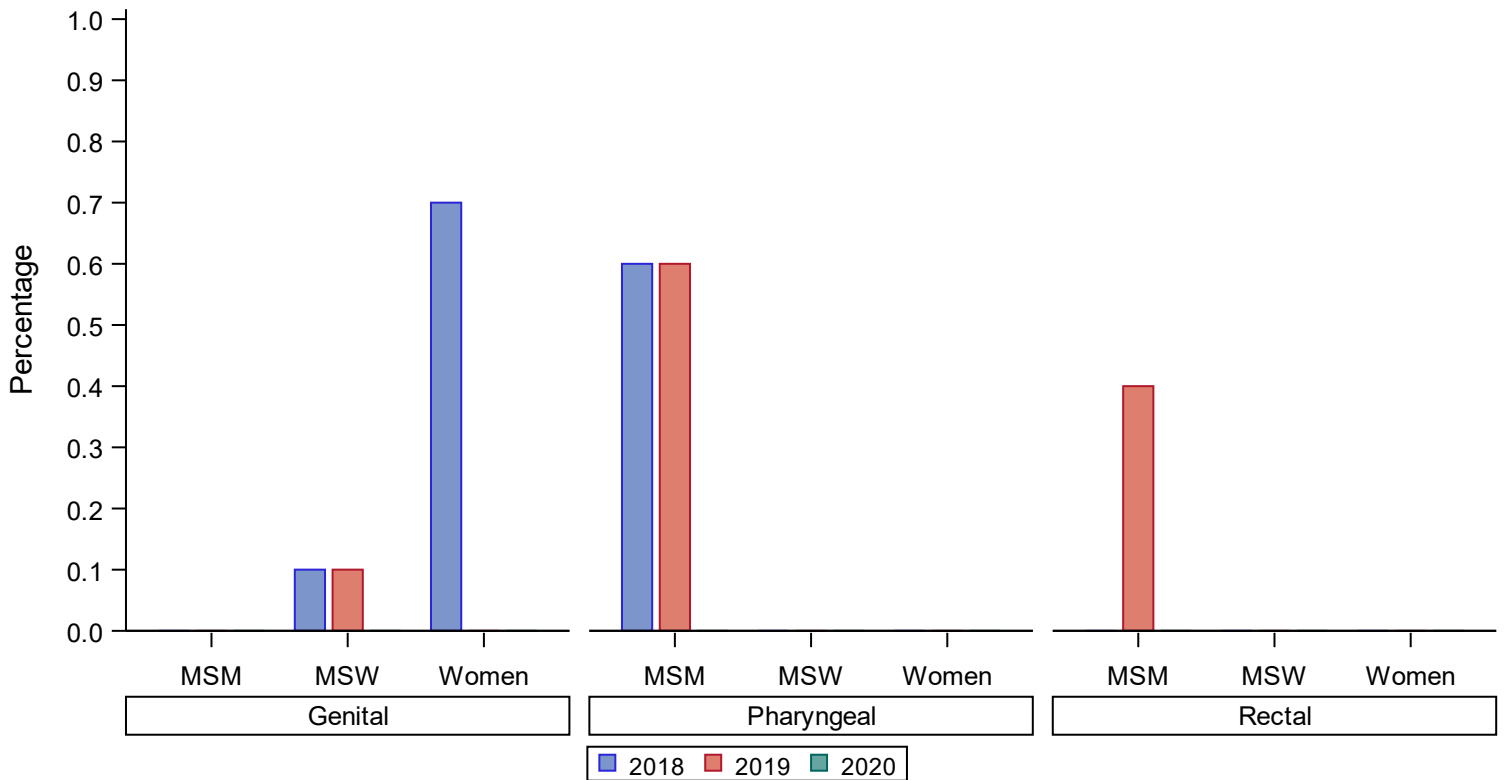
Figure 5: Distribution of Ciprofloxacin Minimum Inhibitory Concentrations (MICs) Among *Neisseria gonorrhoeae* Isolates by Anatomic Site of Infection, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2018-2020



Site of Infection	Year	≤ 0.015 n (%)	0.03-0.06 n (%)	0.125-0.5 n (%)	1.0-2.0 n (%)	≥ 4.0 n (%)	Total
Genital	2018	1201 (64.5)	29 (1.6)	21 (1.1)	66 (3.5)	544 (29.2)	1861
Genital	2019	961 (55.4)	23 (1.3)	26 (1.5)	98 (5.6)	628 (36.2)	1736
Genital	2020	754 (57.9)	39 (3.0)	30 (2.3)	97 (7.5)	382 (29.3)	1302
Pharyngeal	2018	199 (60.3)	5 (1.5)	3 (0.9)	11 (3.3)	112 (33.9)	330
Pharyngeal	2019	136 (46.9)	7 (2.4)	8 (2.8)	24 (8.3)	115 (39.7)	290
Pharyngeal	2020	89 (47.3)	8 (4.3)	1 (0.5)	13 (6.9)	77 (41.0)	188
Rectal	2018	176 (58.5)	5 (1.7)	2 (0.7)	16 (5.3)	102 (33.9)	301
Rectal	2019	143 (47.7)	8 (2.7)	7 (2.3)	23 (7.7)	119 (39.7)	300
Rectal	2020	141 (51.8)	3 (1.1)	8 (2.9)	26 (9.6)	94 (34.6)	272



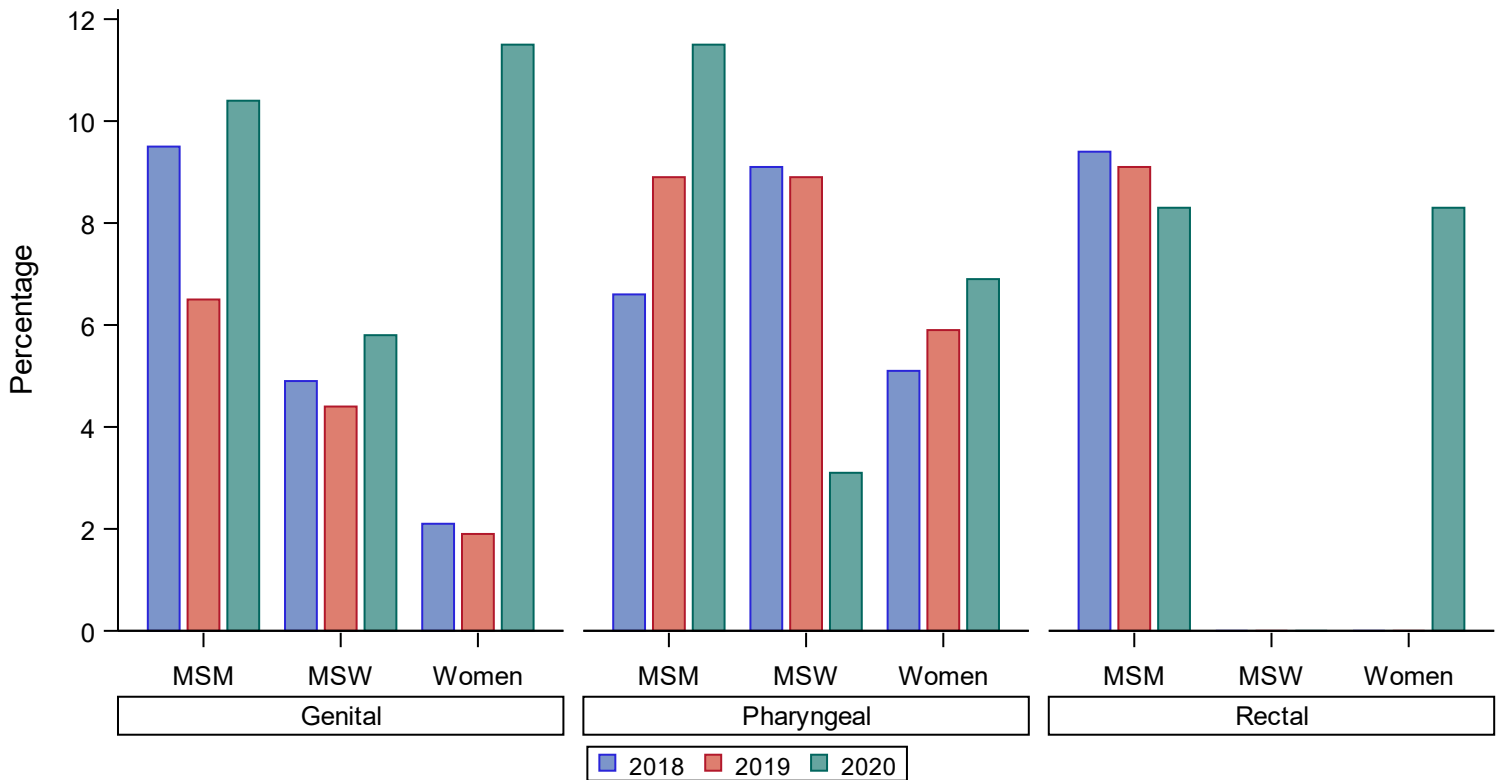
Figure 6: Percentage of *Neisseria gonorrhoeae* Isolates with Elevated Minimum Inhibitory Concentrations (MICs) to Ceftriaxone by Site of Infection and by Gender and Gender of Sex Partners, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2018-2020



Site of Infection	Year	MSM n (%)	MSW n (%)	Women n (%)	Total
Genital	2018	0 (0.0)	1 (0.1)	1 (0.7)	2
Genital	2019	0 (0.0)	1 (0.1)	0 (0.0)	1
Genital	2020	0 (0.0)	0 (0.0)	0 (0.0)	0
Pharyngeal	2018	1 (0.6)	0 (0.0)	0 (0.0)	1
Pharyngeal	2019	1 (0.6)	0 (0.0)	0 (0.0)	1
Pharyngeal	2020	0 (0.0)	0 (0.0)	0 (0.0)	0
Rectal	2018	0 (0.0)	0 (0.0)	0 (0.0)	0
Rectal	2019	1 (0.4)	0 (0.0)	0 (0.0)	1
Rectal	2020	0 (0.0)	0 (0.0)	0 (0.0)	0

Note: MSM = Gay, bisexual, and other men who have sex with men; MSW = Men who have sex with women only. Ceftriaxone elevated MICs  $\geq 0.125$   $\mu\text{g/ml}$ .

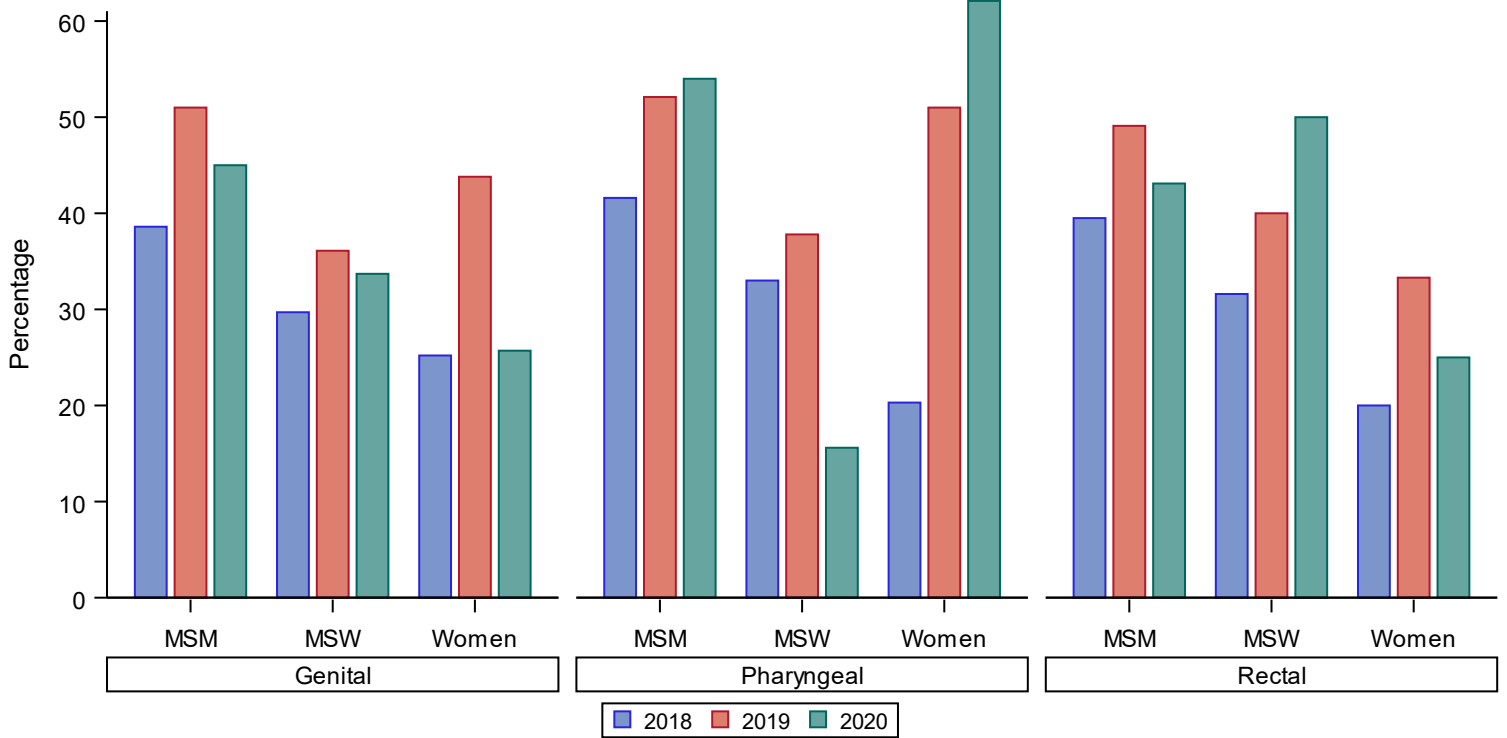
Figure 7: Percentage of *Neisseria gonorrhoeae* Isolates with Elevated Minimum Inhibitory Concentrations (MICs) to Azithromycin by Site of Infection and by Gender and Gender of Sex Partners, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2018-2020



Site of Infection	Year	MSM n (%)	MSW n (%)	Women n (%)	Total
Genital	2018	62 (9.5)	50 (4.9)	3 (2.1)	115
Genital	2019	36 (6.5)	46 (4.4)	2 (1.9)	84
Genital	2020	44 (10.4)	43 (5.8)	13 (11.5)	100
Pharyngeal	2018	11 (6.6)	8 (9.1)	3 (5.1)	22
Pharyngeal	2019	15 (8.9)	4 (8.9)	3 (5.9)	22
Pharyngeal	2020	13 (11.5)	1 (3.1)	2 (6.9)	16
Rectal	2018	22 (9.4)	0 (0.0)	0 (0.0)	22
Rectal	2019	21 (9.1)	0 (0.0)	0 (0.0)	21
Rectal	2020	18 (8.3)	0 (0.0)	1 (8.3)	19

Note: MSM = Gay, bisexual, and other men who have sex with men; MSW = Men who have sex with women only. Azithromycin elevated MICs  $\geq 2.0$   $\mu\text{g/ml}$ .

Figure 8: Percentage of *Neisseria gonorrhoeae* Isolates with Resistance to Ciprofloxacin by Site of Infection and by Gender and Gender of Sex Partners, Enhanced Gonococcal Isolate Surveillance Project (eGISP), 2018-2020



Site of Infection	Year	MSM n (%)	MSW n (%)	Women n (%)	Total
Genital	2018	251 (38.6)	304 (29.7)	36 (25.2)	591
Genital	2019	283 (51.0)	374 (36.1)	46 (43.8)	703
Genital	2020	190 (45.0)	249 (33.7)	29 (25.7)	468
Pharyngeal	2018	69 (41.6)	29 (33.0)	12 (20.3)	110
Pharyngeal	2019	88 (52.1)	17 (37.8)	26 (51.0)	131
Pharyngeal	2020	61 (54.0)	5 (15.6)	18 (62.1)	84
Rectal	2018	92 (39.5)	6 (31.6)	3 (20.0)	101
Rectal	2019	113 (49.1)	2 (40.0)	6 (33.3)	121
Rectal	2020	93 (43.1)	2 (50.0)	3 (25.0)	98

Note: MSM = Gay, bisexual, and other men who have sex with men; MSW = Men who have sex with women only. Ciprofloxacin resistance = MICs  $\geq$  1.0  $\mu$ g/ml.