



A Comparative Analysis of STI Rates in Georgia Department of Public Health District 2 During Surges in COVID-19



Brooke Hunsicker, Anvi Rao – Foothills AHEC Pathway to Med School
 Zachary Taylor, MD; Marie Brown, MPH; Maria Britez, MPH; Sierra Towery, MPH – GDPH District 2

Background

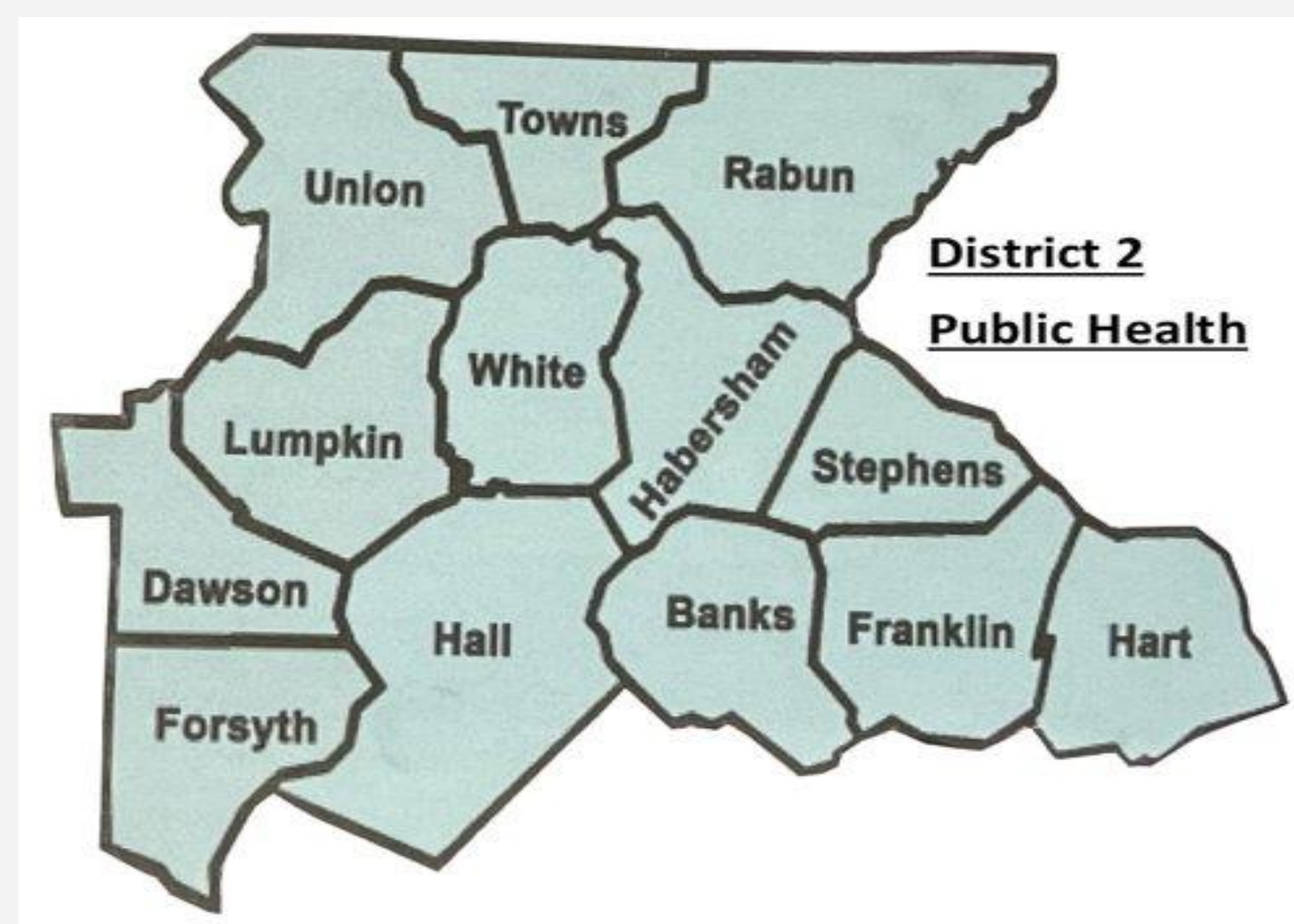
- Chlamydia and gonorrhea are sexually transmitted infections (STIs) that can be transmitted through oral, anal, or vaginal sex and perinatally from mother to baby during childbirth^{1,2}. Many infections are asymptomatic resulting in unknown transmission and delayed diagnosis/treatment.
- Chlamydia rates are higher in women, while gonorrhea rates in both sexes are similar⁴.
- Rates for both chlamydia and gonorrhea are higher among African Americans in Georgia Department of Public Health (GDPH) District 2⁴.
- Chlamydia and gonorrhea are most common amongst young adults aged 15-24 years old^{1,3}.
- Georgia STI rates have been historically higher than overall national rates. Although STI rates are lower in GDPH District 2 than in Georgia overall, there has been an overall increase in chlamydia and gonorrhea cases over the last decade⁵.

Purpose

- By performing a comparative analysis of STI rates and COVID-19, a better understanding of the relationship between these two epidemics could be provided.
- Knowledge of the effects of decreased access can shape STI interventions, preventative measures, and testing.

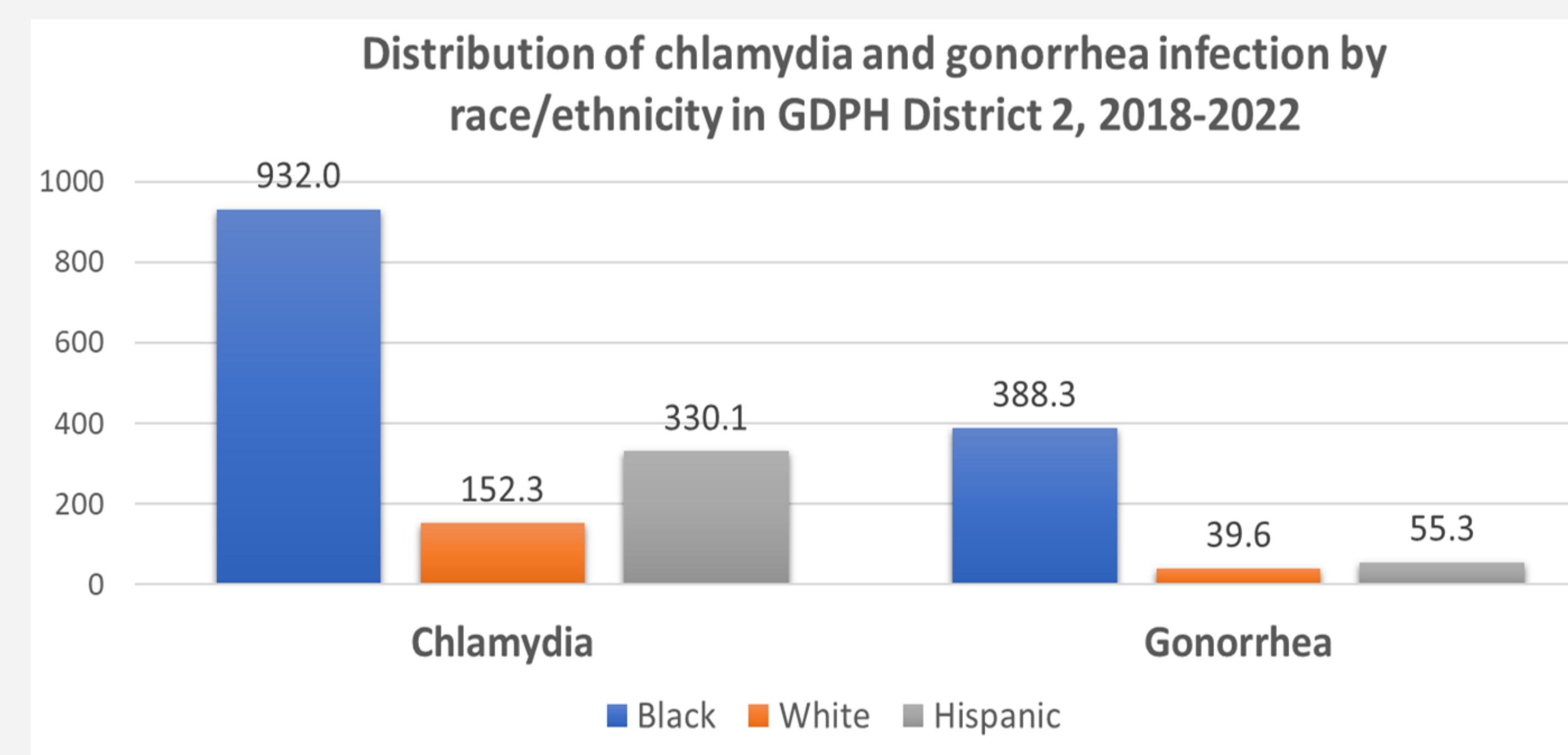
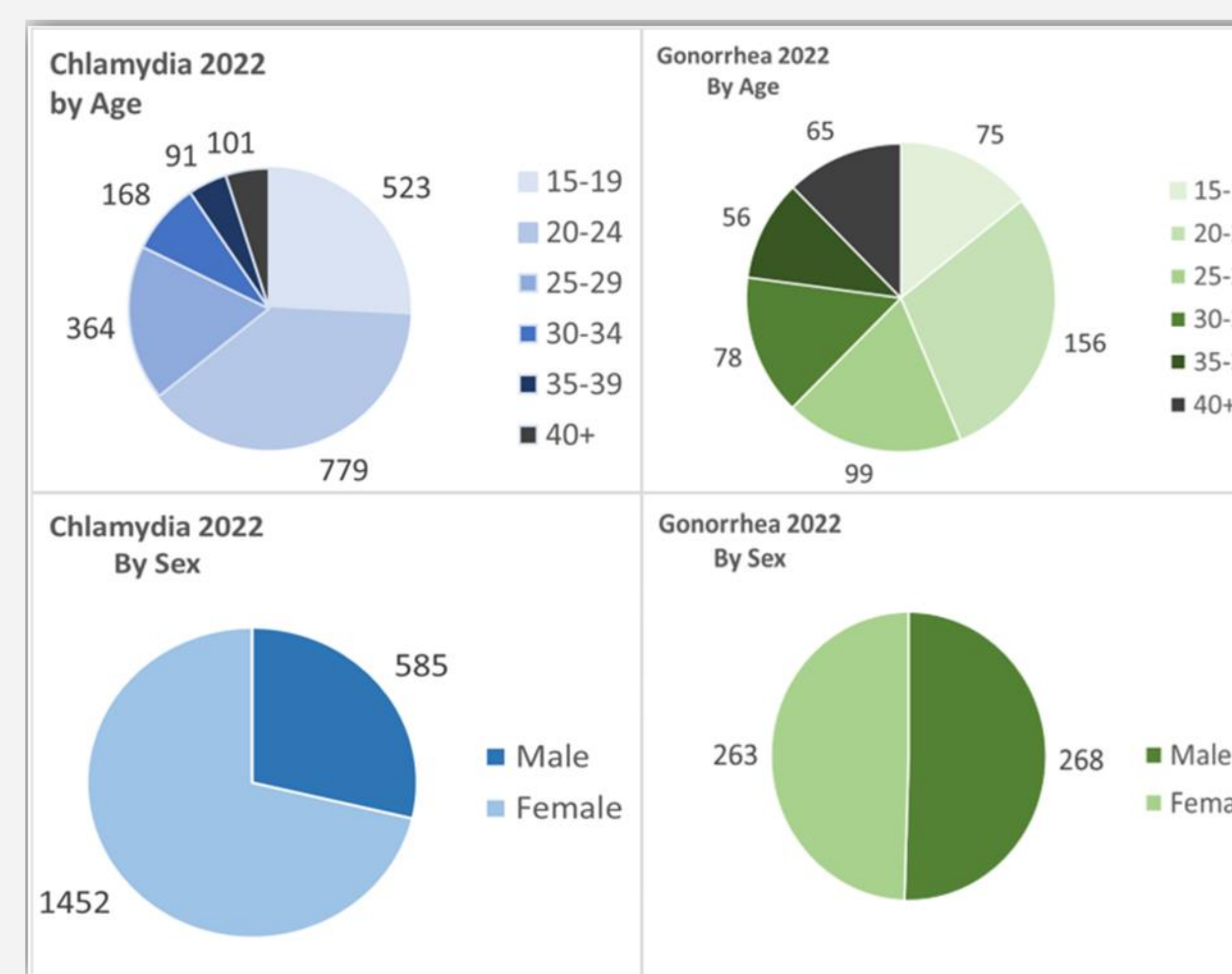
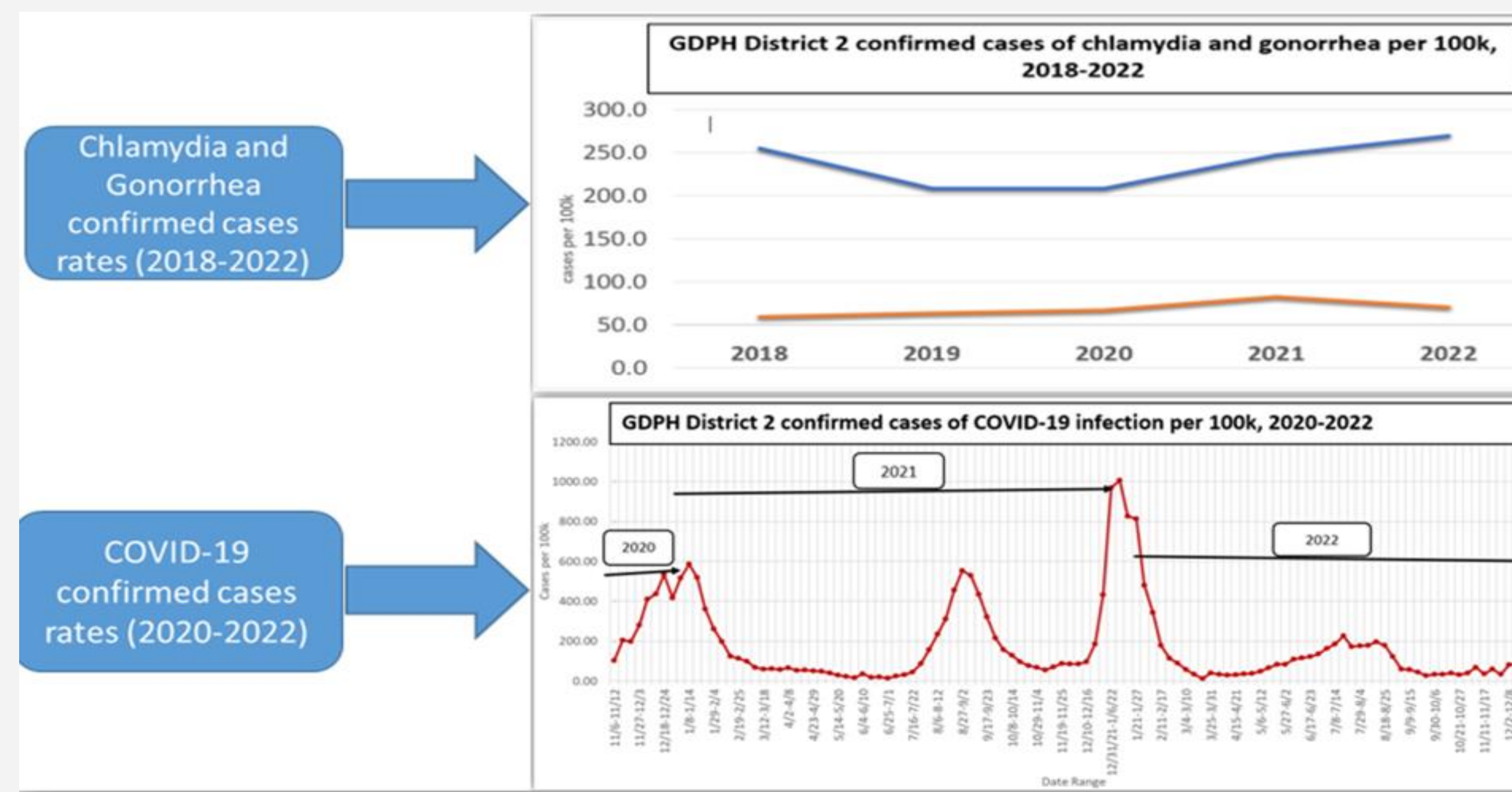
Methodology

- Incidences of chlamydia and gonorrhea confirmed with positive laboratory results were reported from providers/health departments within the 13 counties of GDPH District 2.
- Data was collected from the GDPH State Electronic Notifiable Disease Surveillance System (SendSS) and Online Analytical Statistical Information System (OASIS).
- Data from January 1st, 2018 to December 31, 2022 was analyzed.
- Descriptive analysis was performed with Microsoft Excel package.
- Variables of interest for the project included age, race, and gender.



Results

Infection type	2018	2019	2020	2021	2022	2018-2022 % increase
Chlamydia	1,833	1,804	1,553	1,871	2,039	11.2%
Gonorrhea	423	468	499	625	532	25.8%
Total	2,256	2,272	2,052	2,496	2,571	13.96%



Discussion

- Confirmed cases for both chlamydia and gonorrhea infections were higher in 2022 than in 2018 with an 11.2% increase for chlamydia and a 25.8% increase for gonorrhea.
- 2021 was the most active year for COVID-19 infections with 3 significant spikes in confirmed cases.
- Despite reduced access to health care during the COVID-19 pandemic, STI testing and confirmed cases increased.
- For both chlamydia and gonorrhea infections, younger age groups, specifically individuals aged 20-24, remained the most affected population.
- Chlamydia cases disproportionately affected females, which is similar to the statewide and national distribution of disease.
- Most gonorrhea cases were confirmed in males, aligning with statewide and national distribution of disease. However, the gender distribution of gonorrhea cases shifted to become more equal over time.
- Similar to statewide and national distribution of disease, African Americans in District 2 were 3 times more likely to contract chlamydia and 10 times more likely to contract gonorrhea in comparison to Whites.

Conclusions and Limitations

- As COVID-19 confirmed cases increased, an increase in chlamydia and gonorrhea confirmed cases was observed. However, further studies are required to understand the relationship between STIs and COVID-19.
- Chlamydia and gonorrhea remained a public health concern amidst the COVID-19 pandemic.
- The increase in STI cases emphasizes the importance of preventative care and interventions in response to the STI epidemic.
- The demographics affected by STI by age, race, and gender remained relatively similar despite the pandemic.
- Possible factors contributing to the increase in chlamydia and gonorrhea confirmed cases during the COVID-19 pandemic^{11,12}:
 - Decreased access to services resulting in unknown transmission and delayed diagnosis/treatment
 - Delay in timely case reporting
 - Changes in sexual behaviors or frequency of new sexual partners
- A limitation of this study is the 2022 data is provisional and subject to change.

References

Scan the QR code to view the references utilized in this research.

Acknowledgements: Kirsten Oliver, GDPH STI Epidemiologist

