

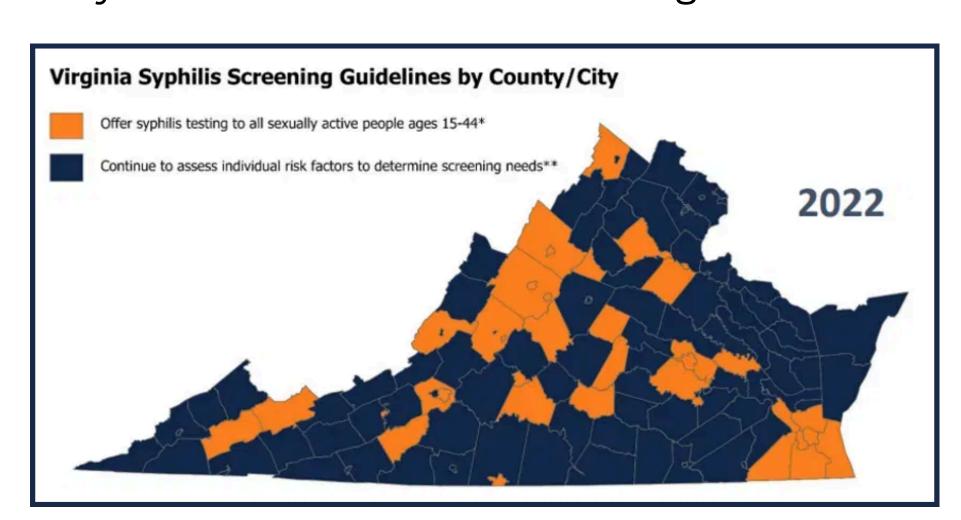
Local STI Epidemiology and Prevention: Battling the Rise of HIV and Syphilis In Richmond and Henrico

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Health Issue/ Background

- While HIV trends are growing steadily upward both nationally and in Virginia, syphilis cases have spiked alarmingly in recent years.
- Limited screening during the pandemic, a false sense of protection while using PrEP, increasing drug use, and many other factors are contributing to this rise.
- in 2023, Richmond incidence rates (new cases) of total early syphilis were around 100 cases per 100,000 residents—around 66% higher than Virginia as a whole.
- Most concerning, congenital syphilis cases (babies born to mothers with syphilis) are increasing. This can cause serious health issues or death for the child.
- In December 2023, new guidelines from VDH recommended that ALL sexually active adults 15-44 in RHHD get tested annually.

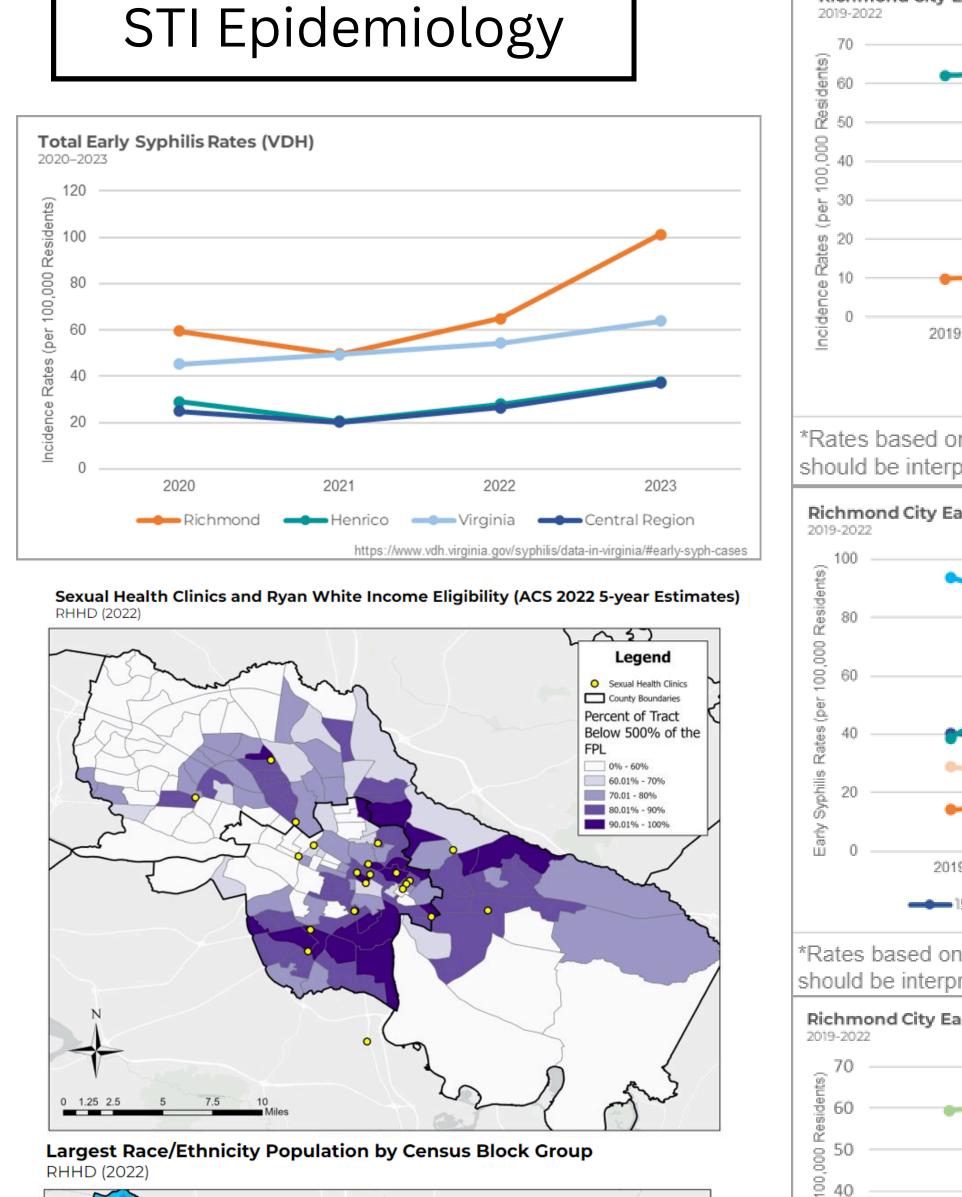


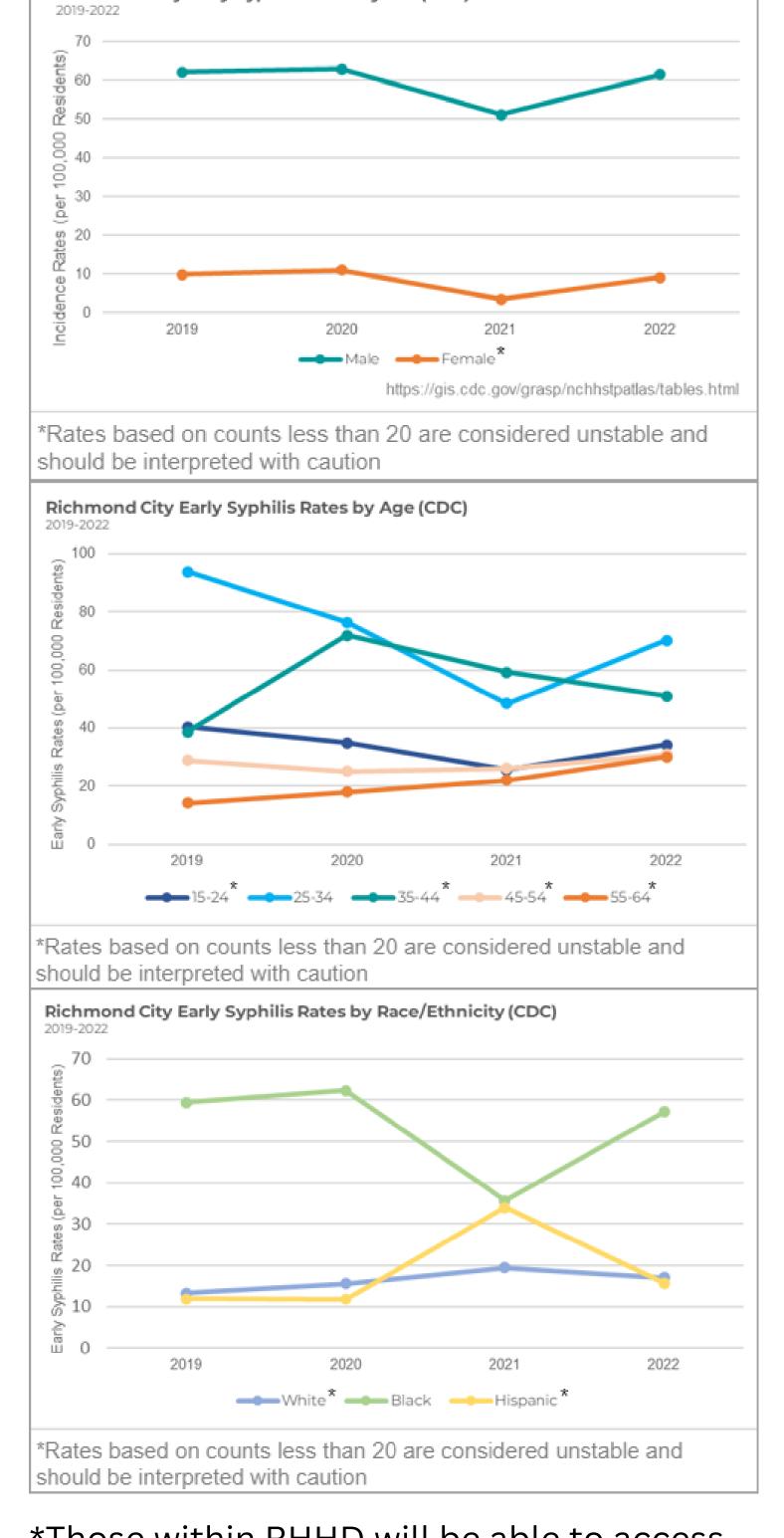
Projects Undertaken

- Collected publicly available data on STI cases in Richmond and Henrico, and summarized findings with visualizations.
- Analyzed STI data from the Virginia Electronic Disease Surveillance System (VEDSS) using R Studio and created visualizations for internal use in informing policies and outreach.
- Created census block group and tract maps of Richmond/Henrico pertaining to STI resources and risk factors.
- Aided in project management of the central region syphilis task force (research and communication).
- Created educational materials for distribution concerning syphilis testing and awareness.



Project Outcomes





*Those within RHHD will be able to access VEDSS data visualizations through the public health data repository.

Central Region Syphilis Task Force



In the past several years the incidence of syphilis increased dramatically in Virginia and nationally. Between 2018 and 2022, the rate of total early syphilis in Virginia increased 14%, while early syphilis cases have increased by 22% in 2023. In particular, rates of congenital syphilis—a preventable and severe diagnosis for children—are alarmingly high. Testing Recommendations All sexually active adults either at higher risk or living in areas of high incidence (counties highlighted in the map) should be tested annually. All pregnant people should be screened at the first prenatal visit, and again at 28 weeks, as well as at delivery (ACOG Guidelines). What makes someone high risk? - Has a partner who tested positive for syphilis - Has HIV or is taking PrEP - MSM sexual contact (testing recommended every 6 months) - New or multiple sexual partners - Incarceration - Drug use Syphilis Stages and Symptoms Primary - Chancer leains in first 1090 days after exposure that usually disappear with 2-8 usua

Task Force Resources

- Four one-page flyers targeted at providers and the public
- Document with available provider STI trainings
- List of urgent care chains in each region for potential collaborations with testing

Research Conclusions

- While absolute numbers remain higher in those assigned male at birth, RHHD is seeing a concerning increase in cases among those assigned female at birth (similar to national trends).
- Black populations bear the highest burden of syphilis and HIV cases, but all races/ethnicities are seeing more infections.
- Richmond City and Piedmont districts saw the most drastic increase in syphilis cases from 2022 to 2023, but case burdens were higher in all districts.
- A higher proportion of syphilis cases in recent years had recorded recent drug use and/or incarceration.
- Thus far, 2024 case numbers are on track to meet and likely exceed that of 2023

Internship Takeaways

- Gained fuller understanding of STI services at local health districts, reporting requirements for STIS, and surveillance activities/data management.
- Learned to collaborate with various employees within RHHD, including DIS and nursing staff.
- Honed epidemiology/statistical skills and communication strategies.
- Learned more about the operation of health districts and their partnerships with CBOs, hospitals, and clinics.



Acknowledgements

Special thanks to Dr.
Melissa Viray, Katherine
Werner, and the rest of the
data team at RHHD for
their help and mentorship
this summer!



