



University of Washington  
Public Health Capacity Building Center

Public Health  
Seattle & King County



## Gonorrhea and Syphilis Among Heterosexuals in the United States: Why Are Rates Rising?

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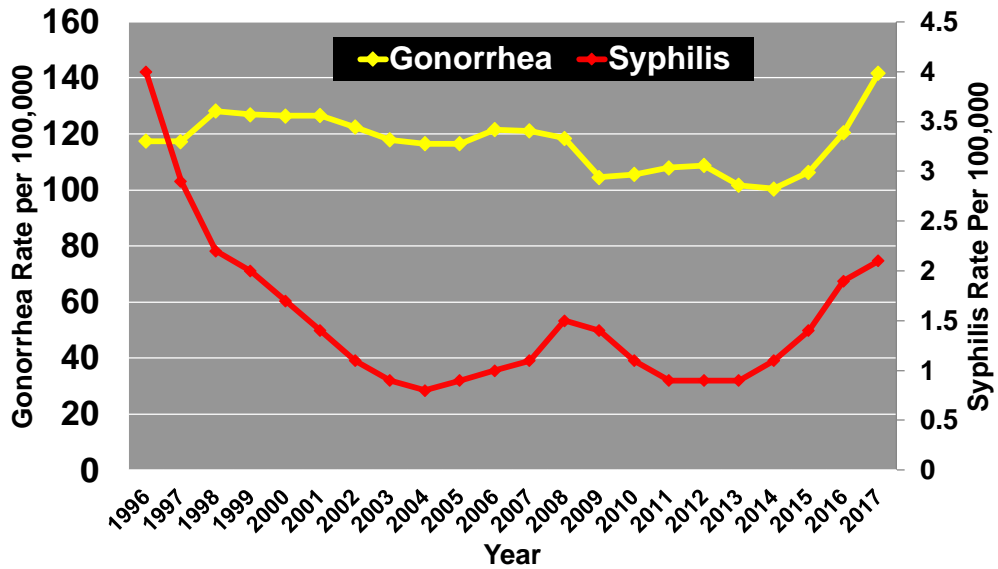
Last Updated: October 25, 2018



## Disclosures

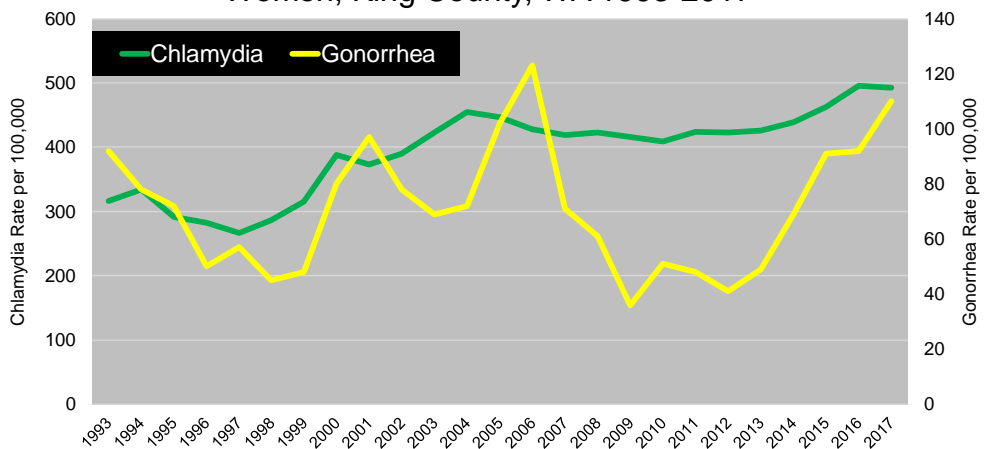
- Dr. Golden has received research support from Hologic and GSK

## Rates of Gonorrhea and Primary & Secondary Syphilis per 100,000 Women in the United States, 1996-2017



## Possible Explanation #1 Gonorrhea Does This: It's the Bug

Rates of Gonorrhea and Chlamydial Infection in Women, King County, WA 1993-2017



## Possible Explanation #1 Gonorrhea Does This: It's the Bug

- Circulating gonococci change over time
- Strains differ
  - Dissemination **Stop Being So Narcissistic!**
  - Other strains could have more subtle differences in clinical expression, duration of infection, infectivity
  - Interaction with strain-specific immunity leading to cycles

If it's the gonococcal strain, why is syphilis also going up?

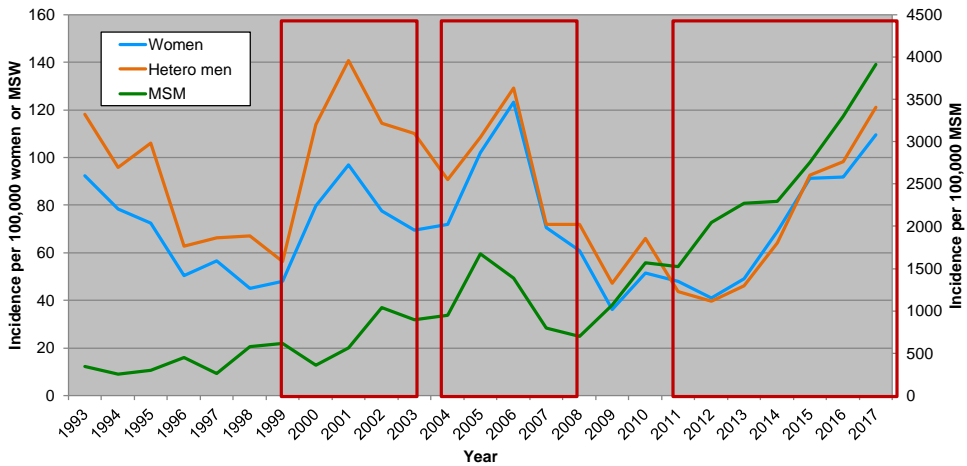
## Possible Explanation #2 Infections Spilling Over from MSM

Population	Percent MSM with Syphilis Who Report Female Sex Partners	Congenital Syphilis per 100,000 Live Births in State
King County, WA 2014-16	5%	3.4
NYC 2015	5%	5.4
North Carolina 2014-16	12%	13.2
Florida 2012-15	12%	26.8
Texas 2015-16	14%	17.8

- Bridges exist
- Extent is highly variable and correlates with congenital syphilis rates

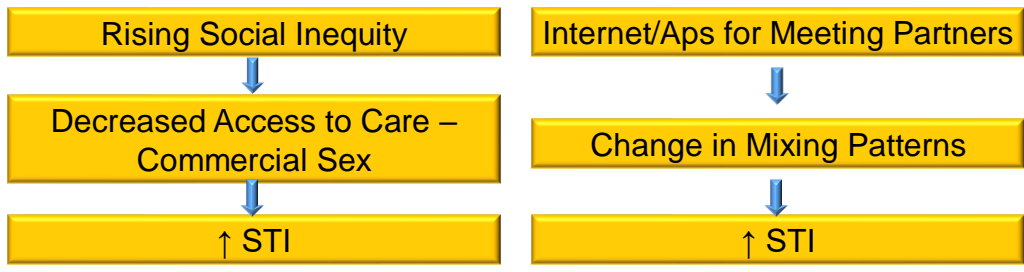
## Possible Explanation #2 Infections Spilling Over from MSM

Rates of Gonorrhea in Women, MSW and MSM, King County, WA 1993-1017



## Possible Explanation #3 Something Else Is Affecting Both Populations

- A social factor is affecting both populations leading to more STI transmission



No Single Factor Might Not Explain What We Are Observing

## Conclusion

- Rate of gonorrhoea and syphilis among heterosexuals in the US are increasing
- Cause is uncertain
- Possibly explanations include
  - Changes in circulating gonococci
  - Spill-over from ever expanding MSM epidemic
  - Other factors that affect MSM and heterosexuals

Thank You