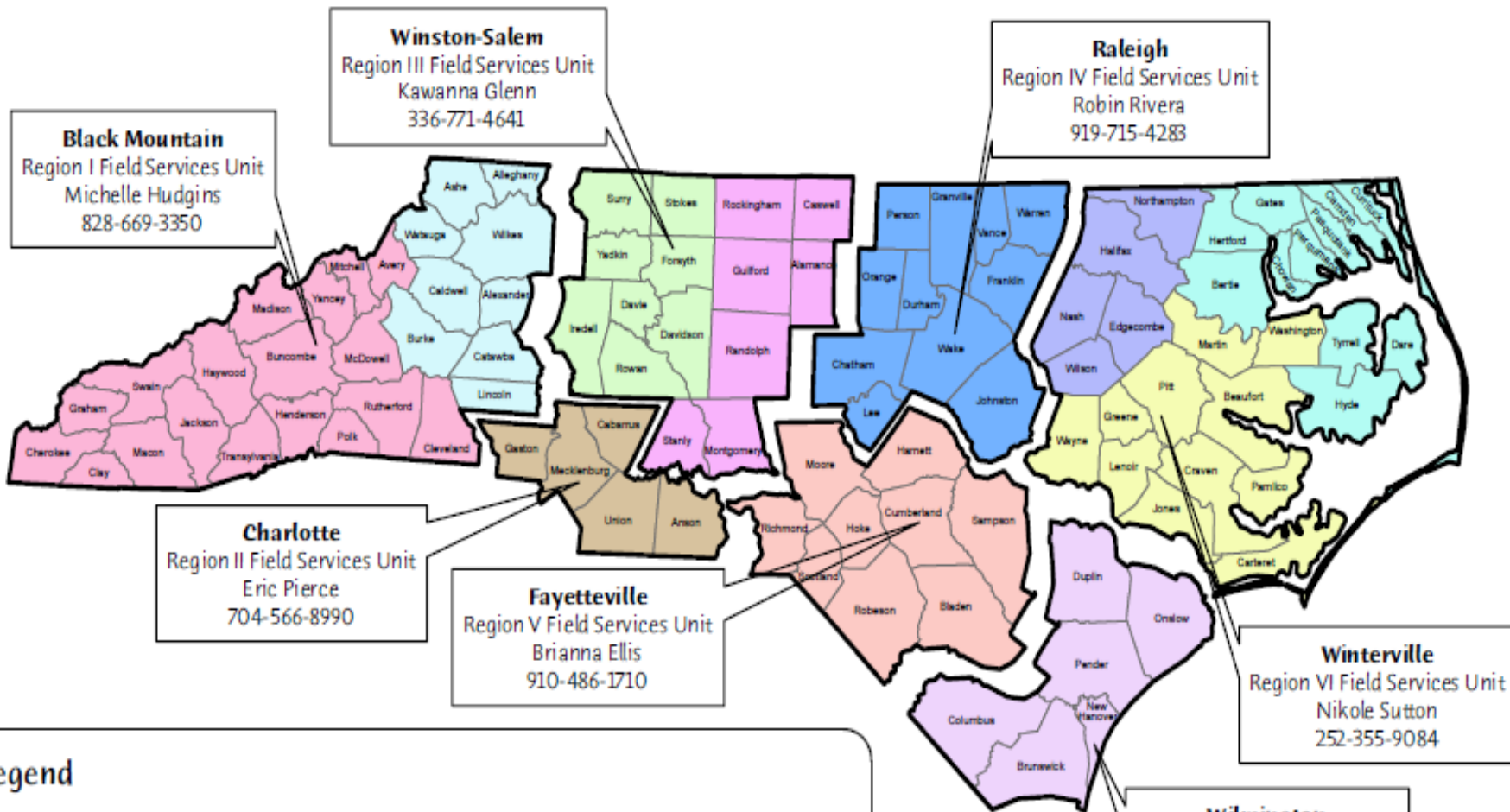


# HIV/STIs-Overlapping Epidemics

*where we were, where we are and where we  
need to go...*

# Overview

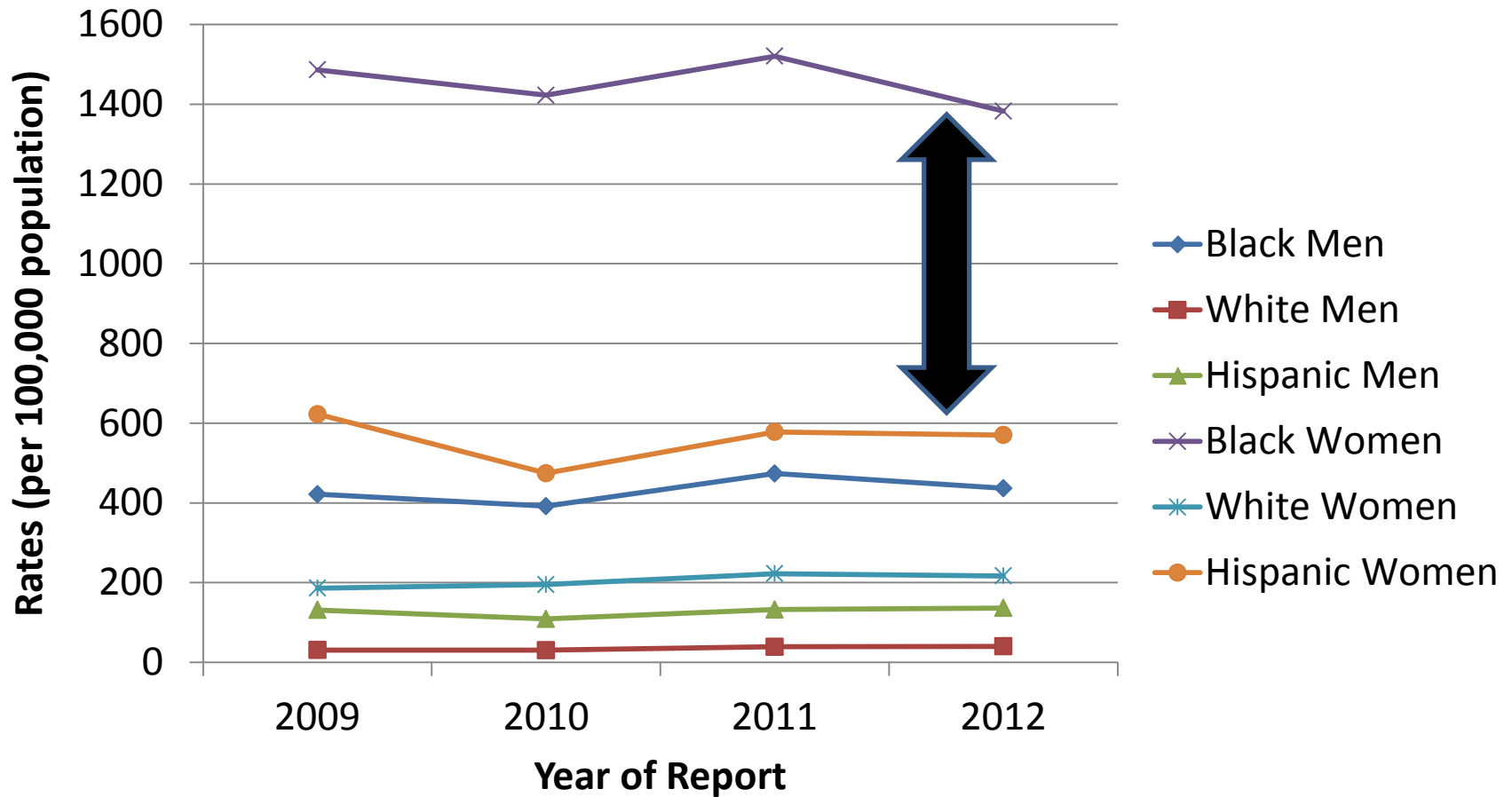
- STI/HIV Trends
  - Rates
  - Demographic
  - Regional morbidity
- Syndemic Disease in North Carolina
- High-risk group(s)
- HIV/STD prevention & control, moving forward



**Legend**

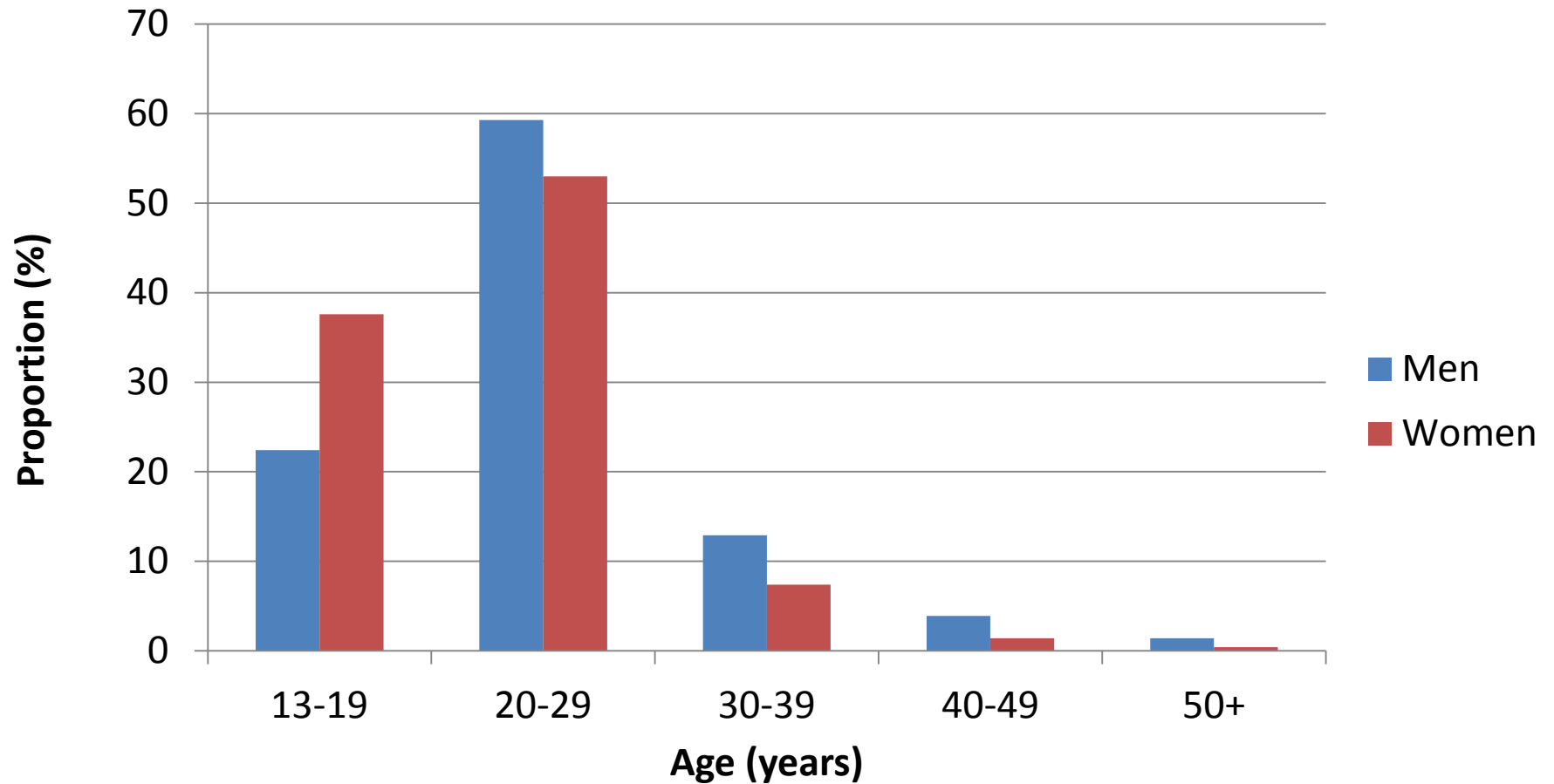
Care Region 1 Asheville	Care Region 7 Wilmington
Care Region 2 Hickory	Care Region 8 Wilson
Care Region 3 Winston-Salem	Care Region 9 Ahoskie
Care Region 4 Greensboro	Care Region 10 Greenville
Care Region 5 Lumberton	Charlotte TGA
Care Region 6 Raleigh	Communicable Disease Regions

# Chlamydia Rates, 2009-2012



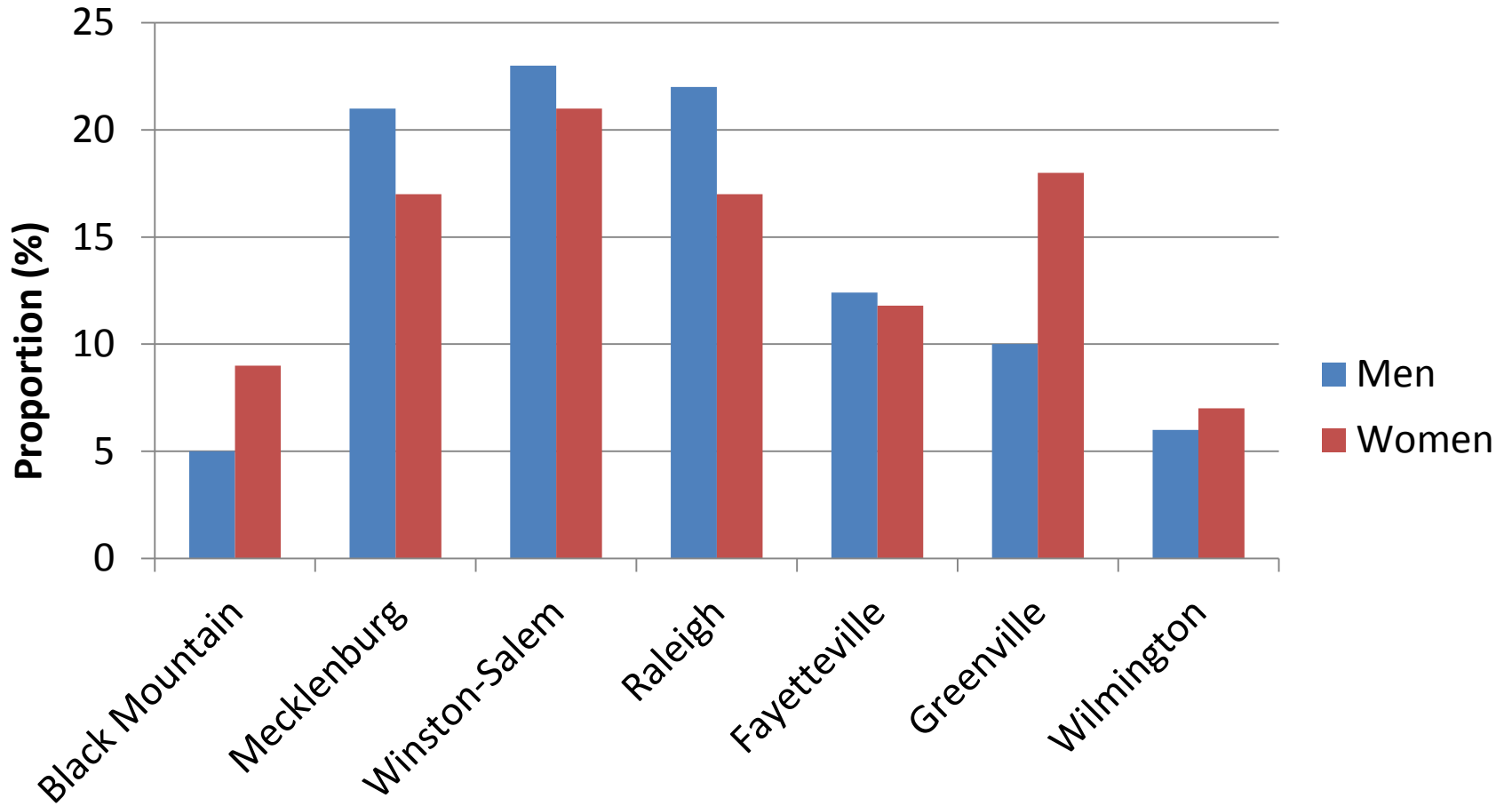


# Age Distribution of Chlamydia Cases

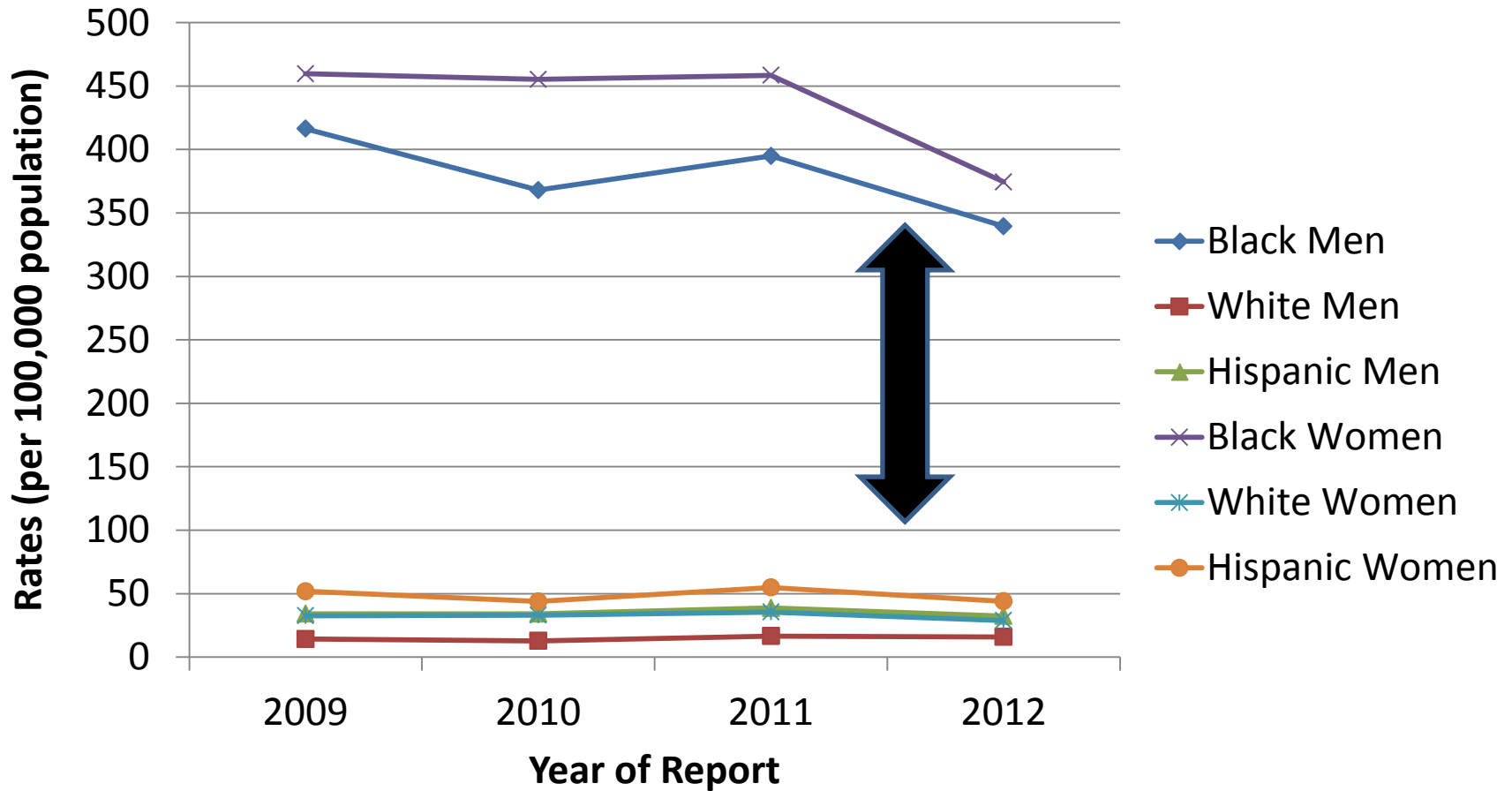


# Regional Distribution of Chlamydia Cases

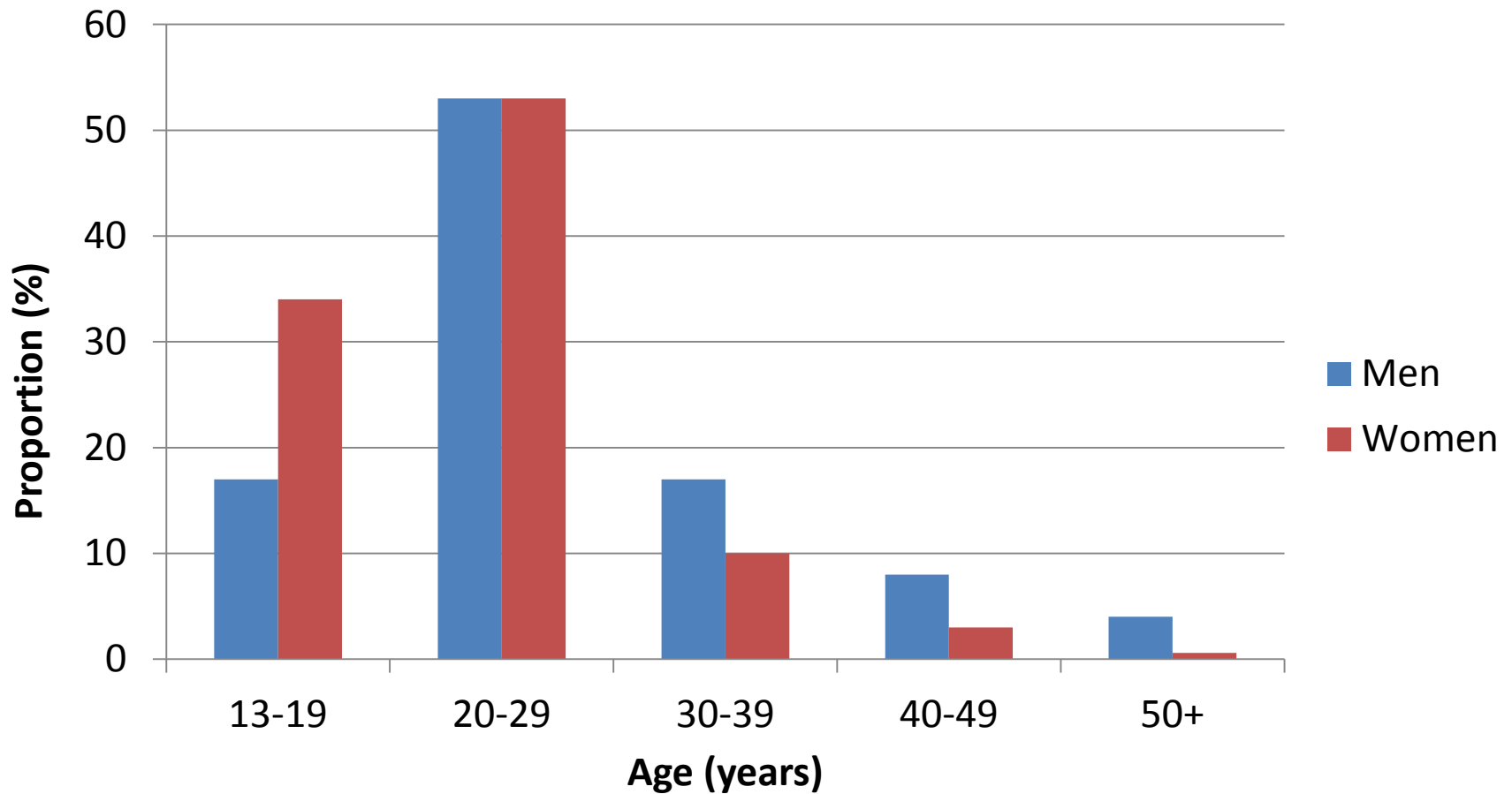
## Cases



# Gonorrhea Rates, 2009-2012



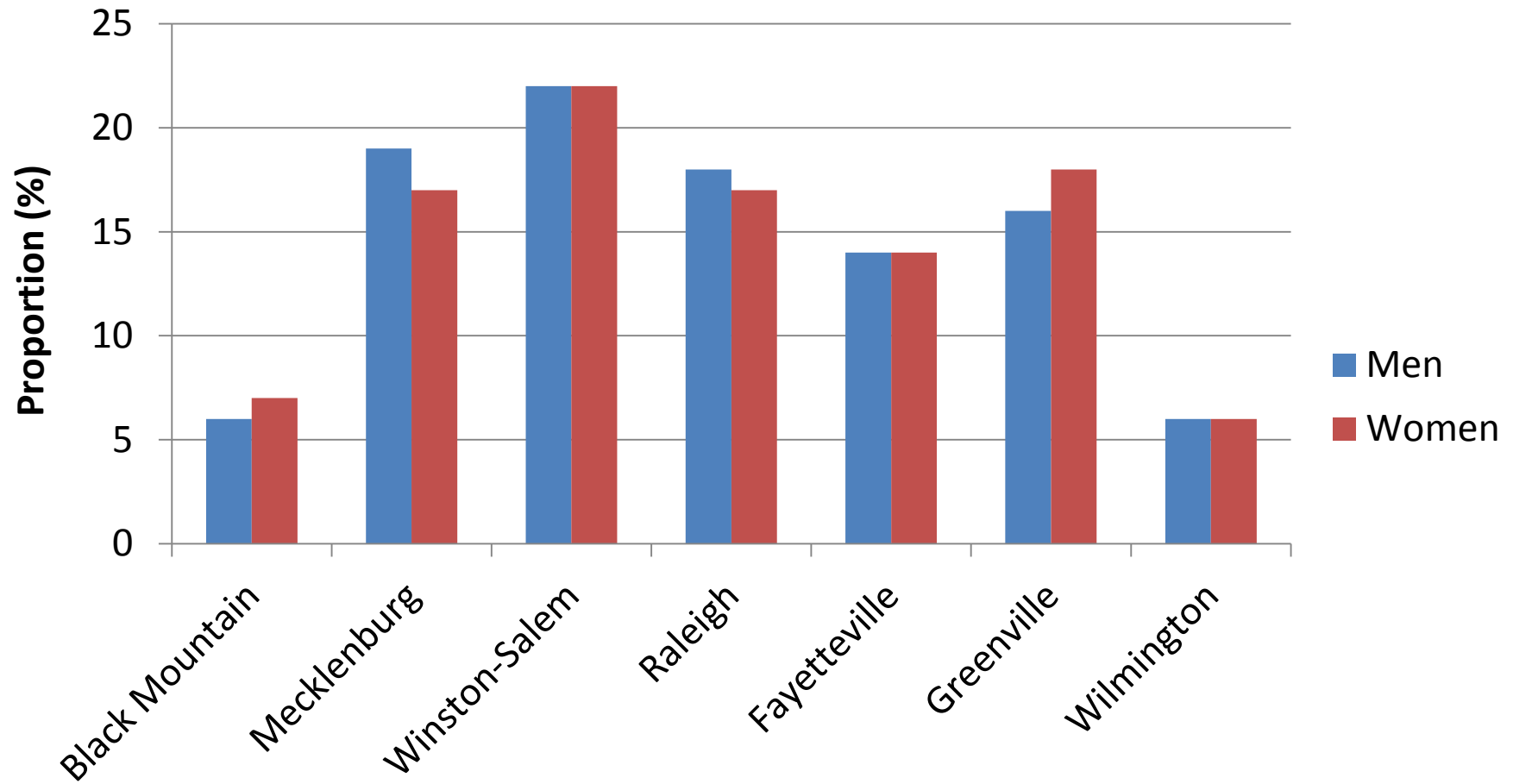
# Age Distribution of Gonorrhoea Cases



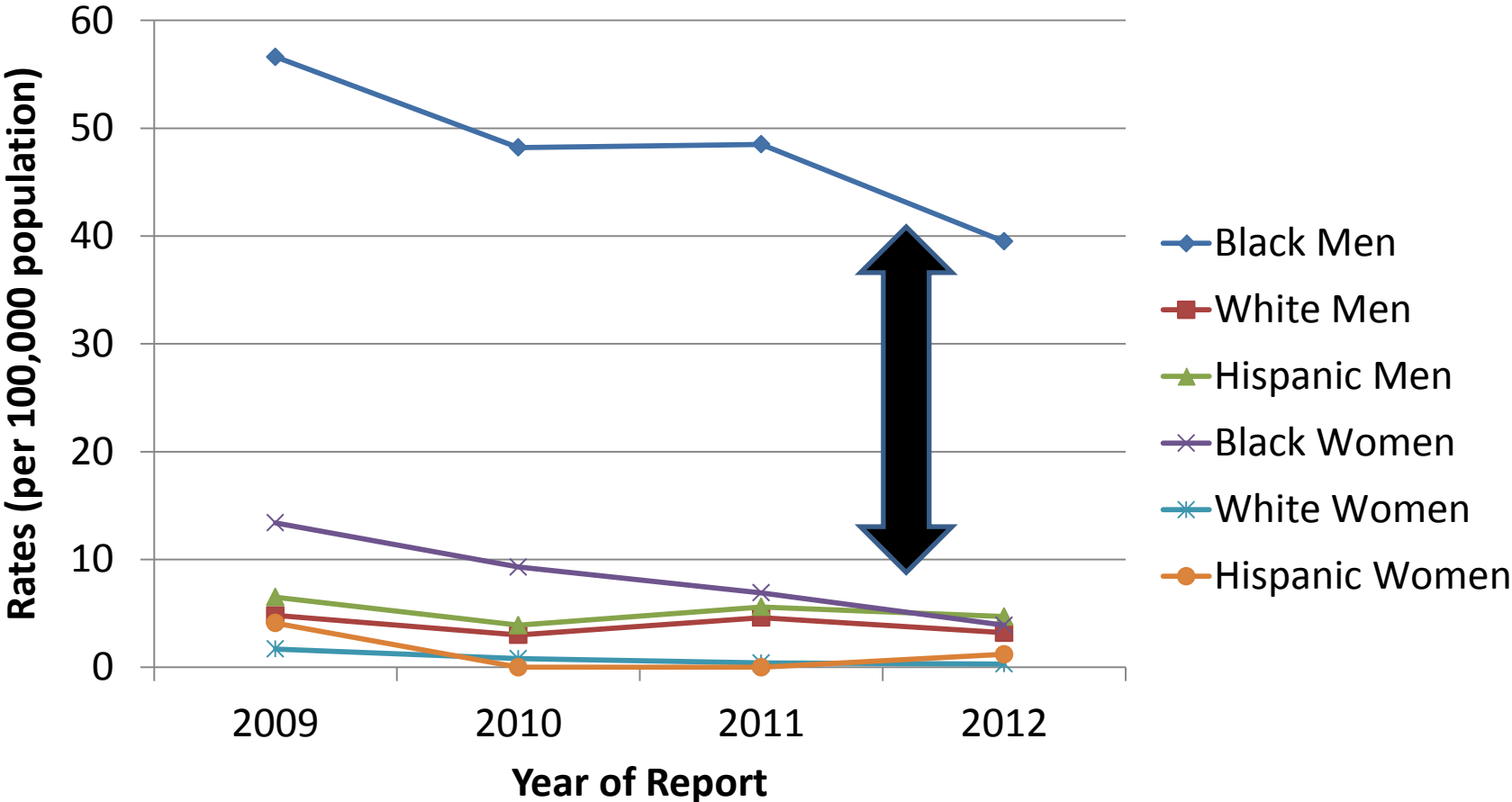




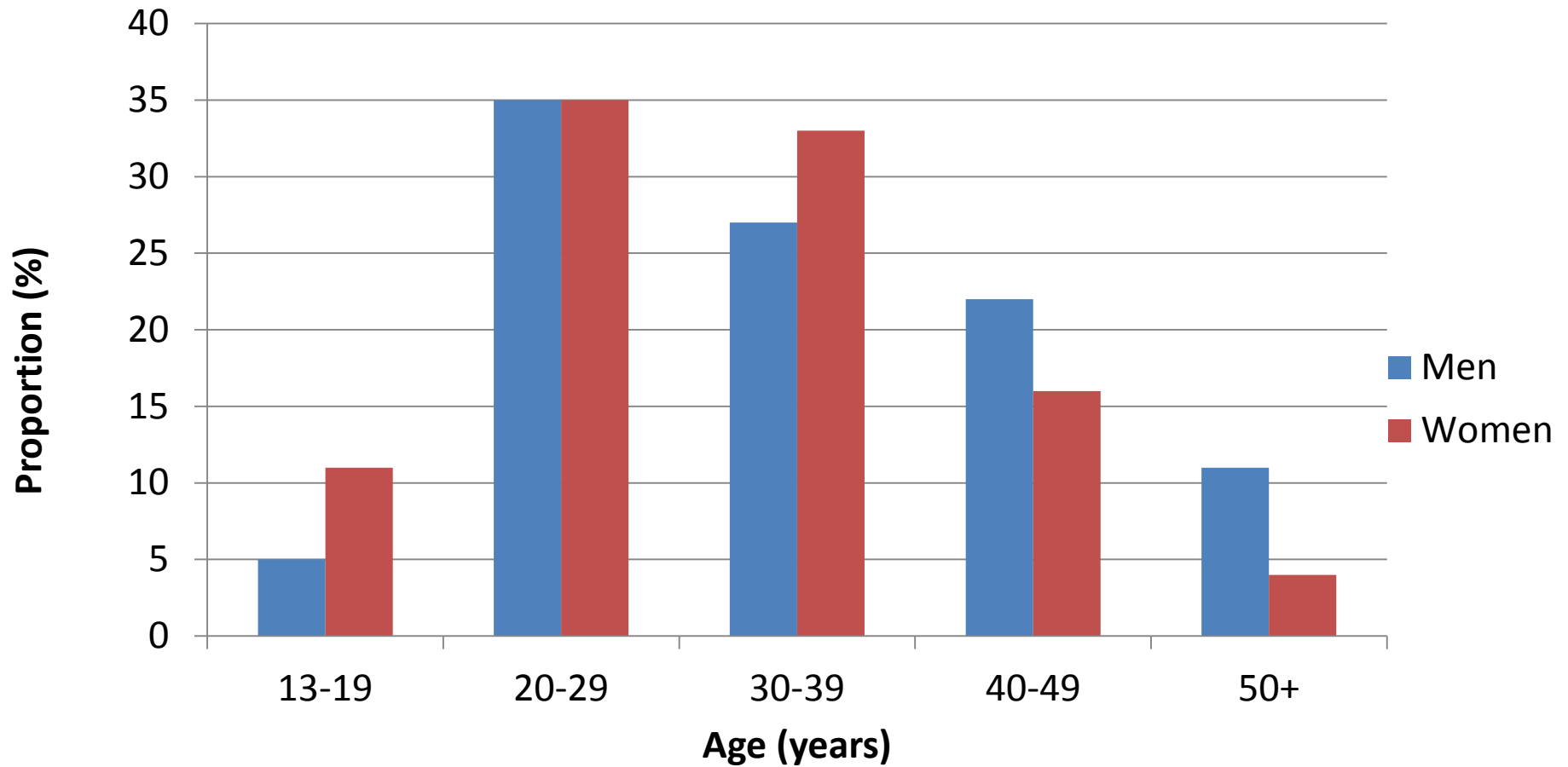
# Regional Distribution of GC Cases



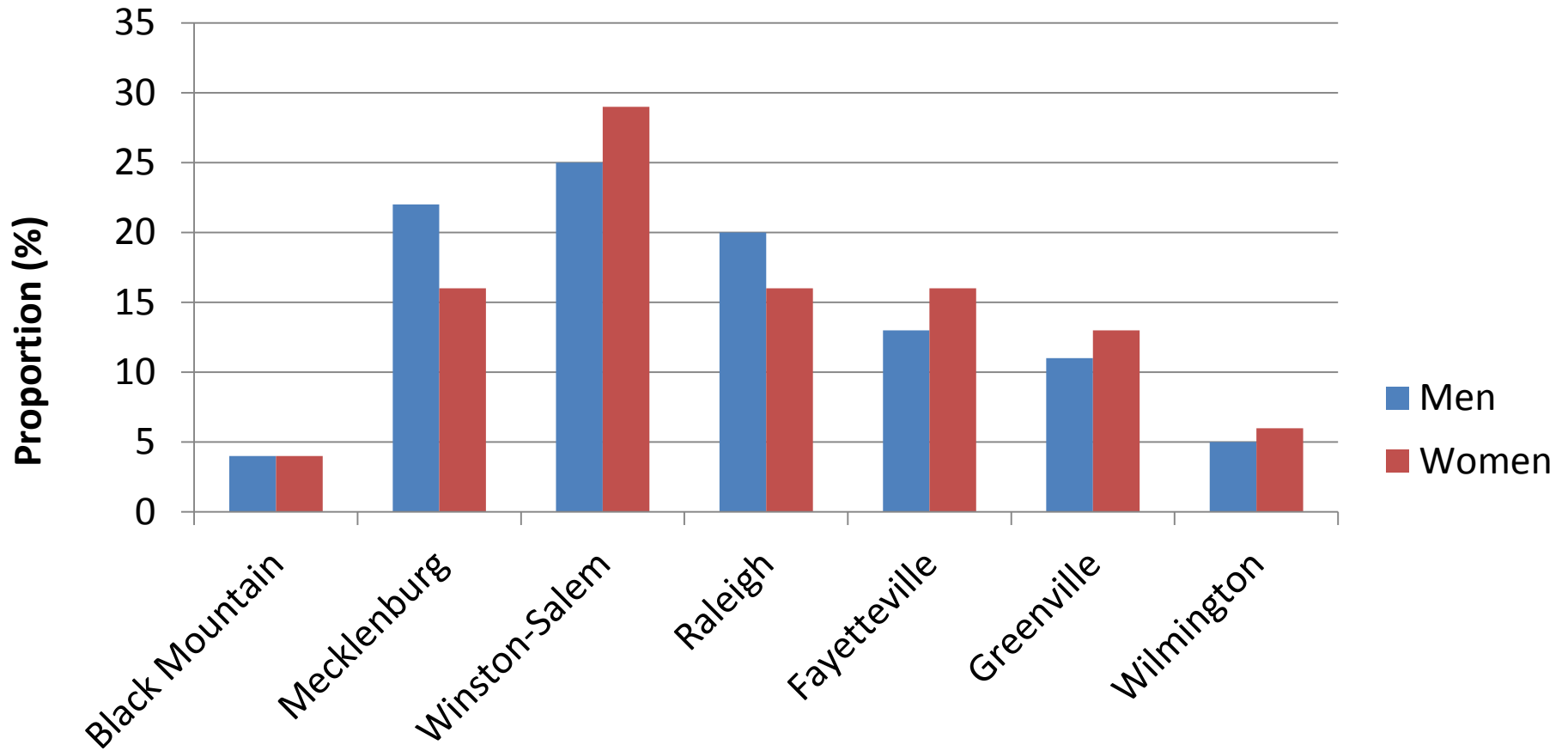
# Early Syphilis Rates, 2009-2012



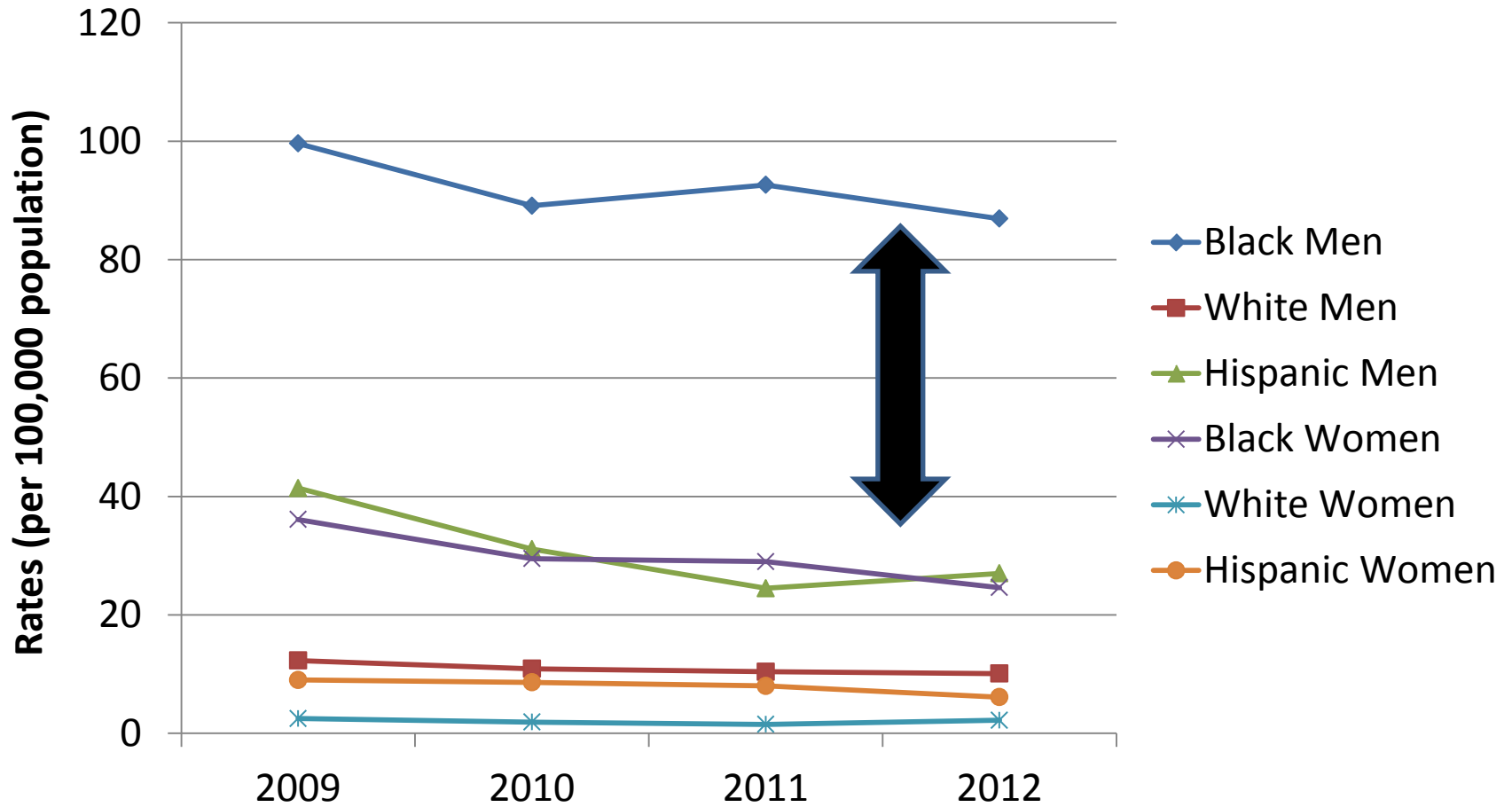
# Age Distribution of Early Syphilis Cases



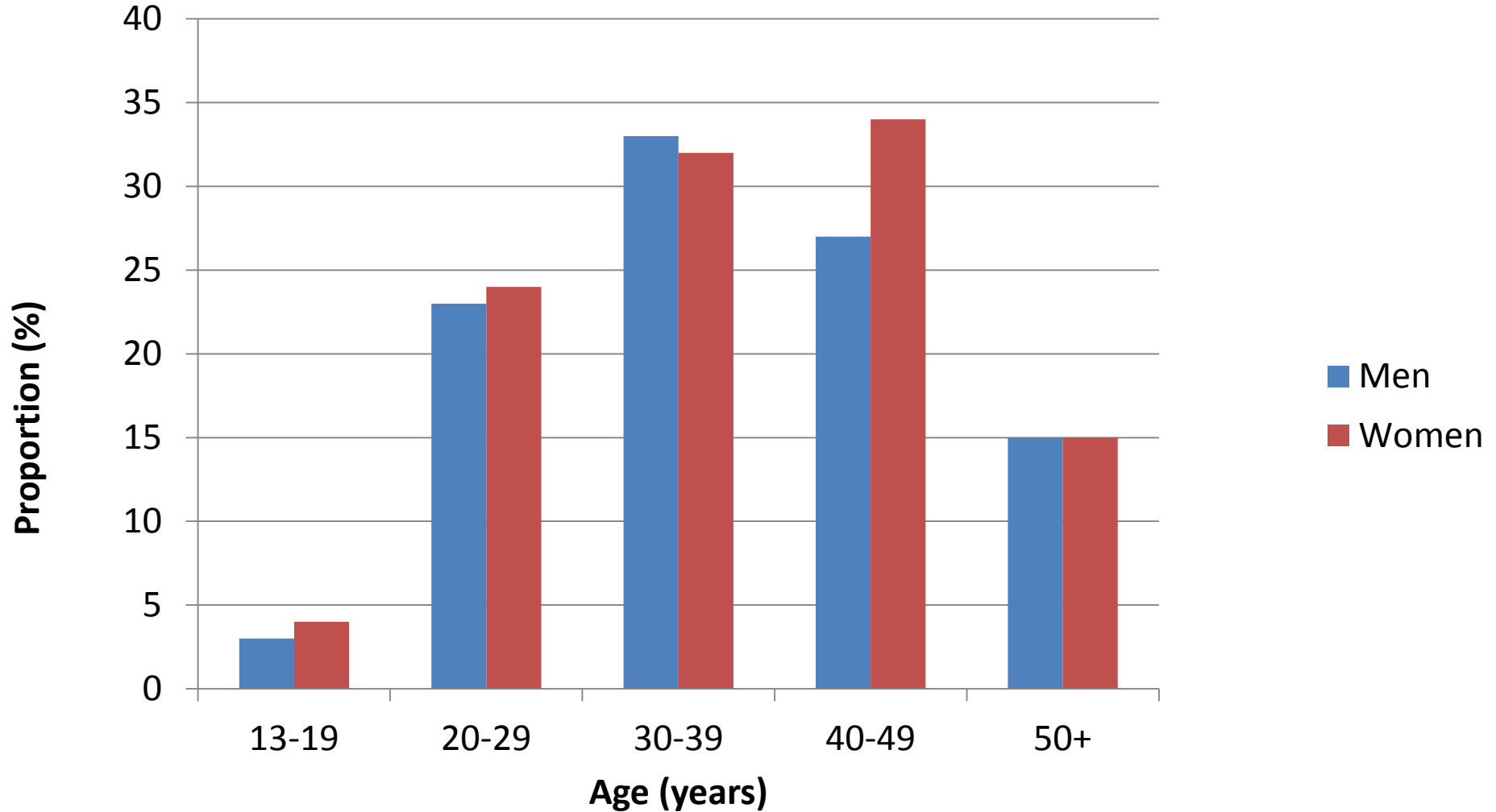
# Regional Distribution of Early Syphilis Cases



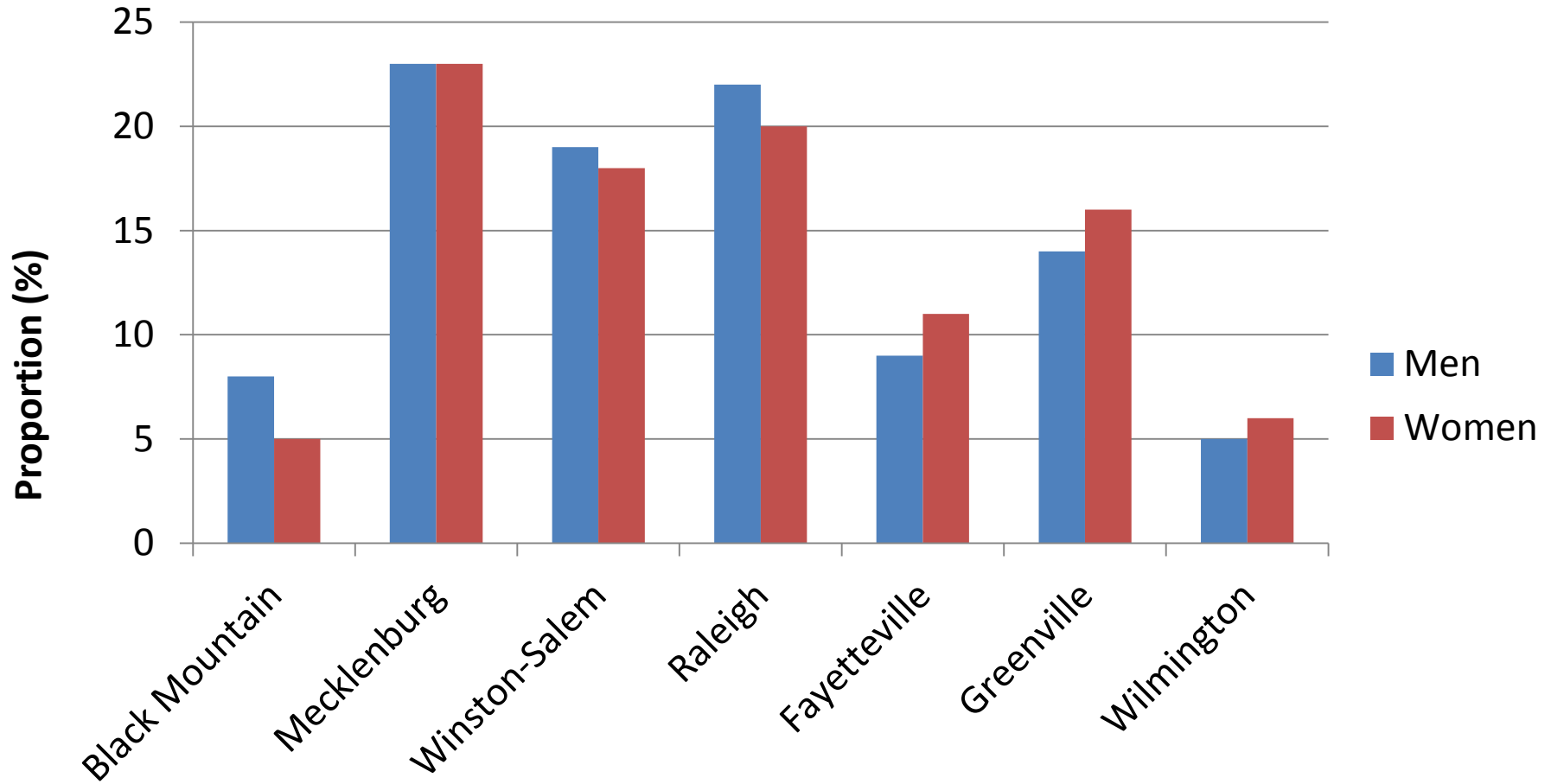
# HIV Rates, 2009-2012



# Age Distribution of HIV Cases



# Regional Distribution of HIV Cases



# Syndemic Disease

***“two or more epidemics interacting synergistically and contributing, as a result of their interaction, to excess burden of disease in a population”***



***Common risks suggest the need for common solutions and enhanced collaboration among related prevention programs***

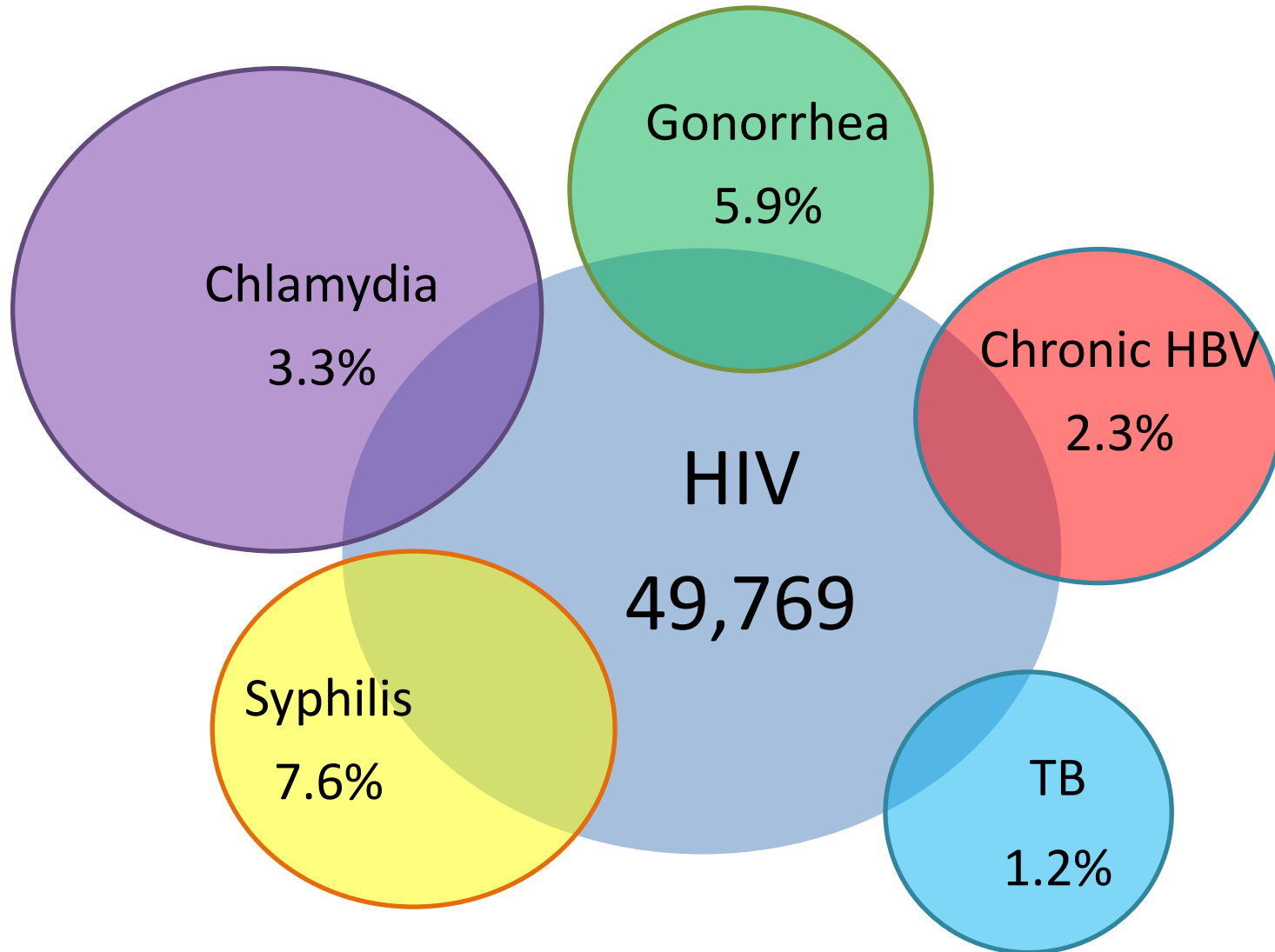


**Program Collaboration and Services Integration**

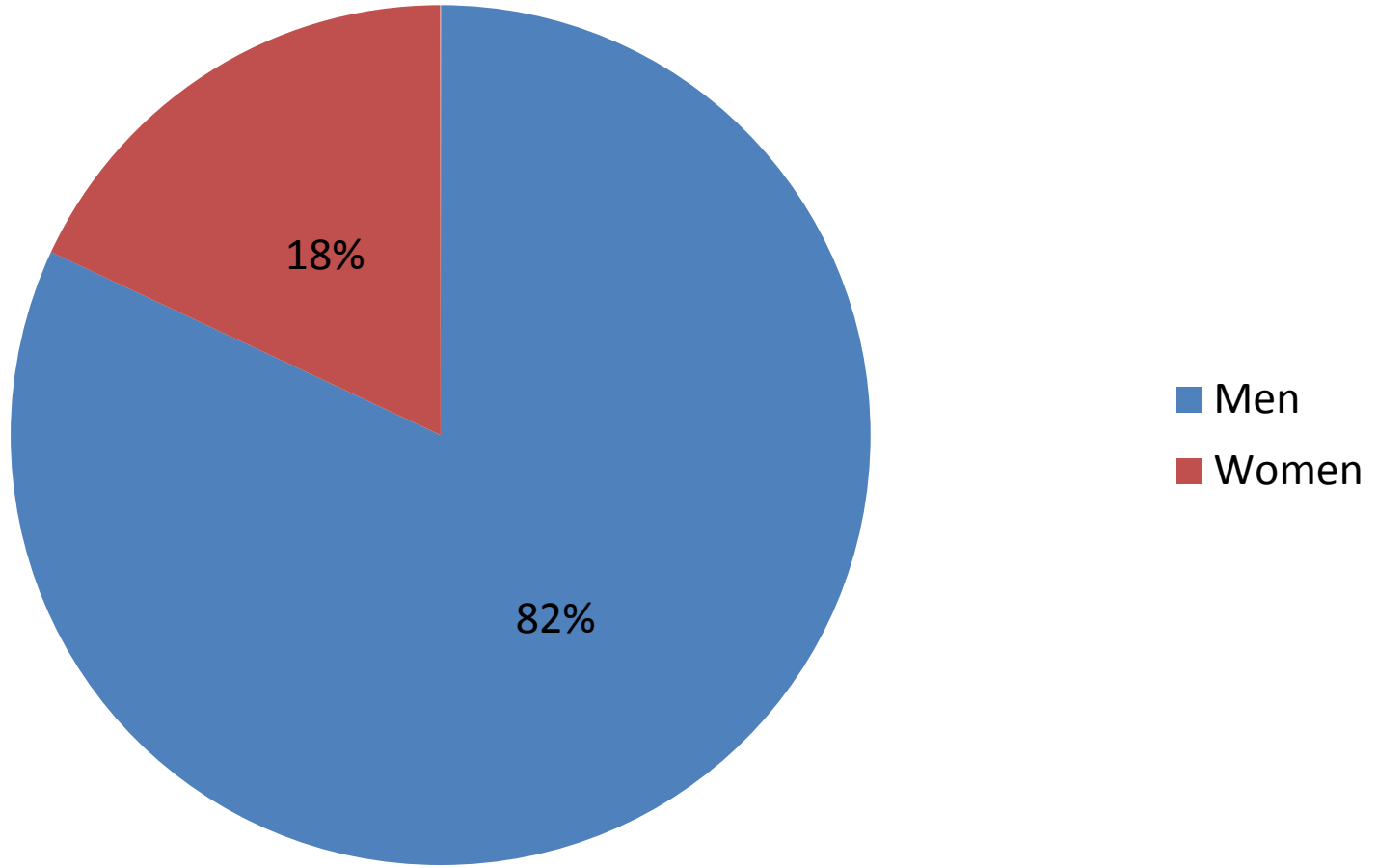


# Syndemic Infections in PLWHA

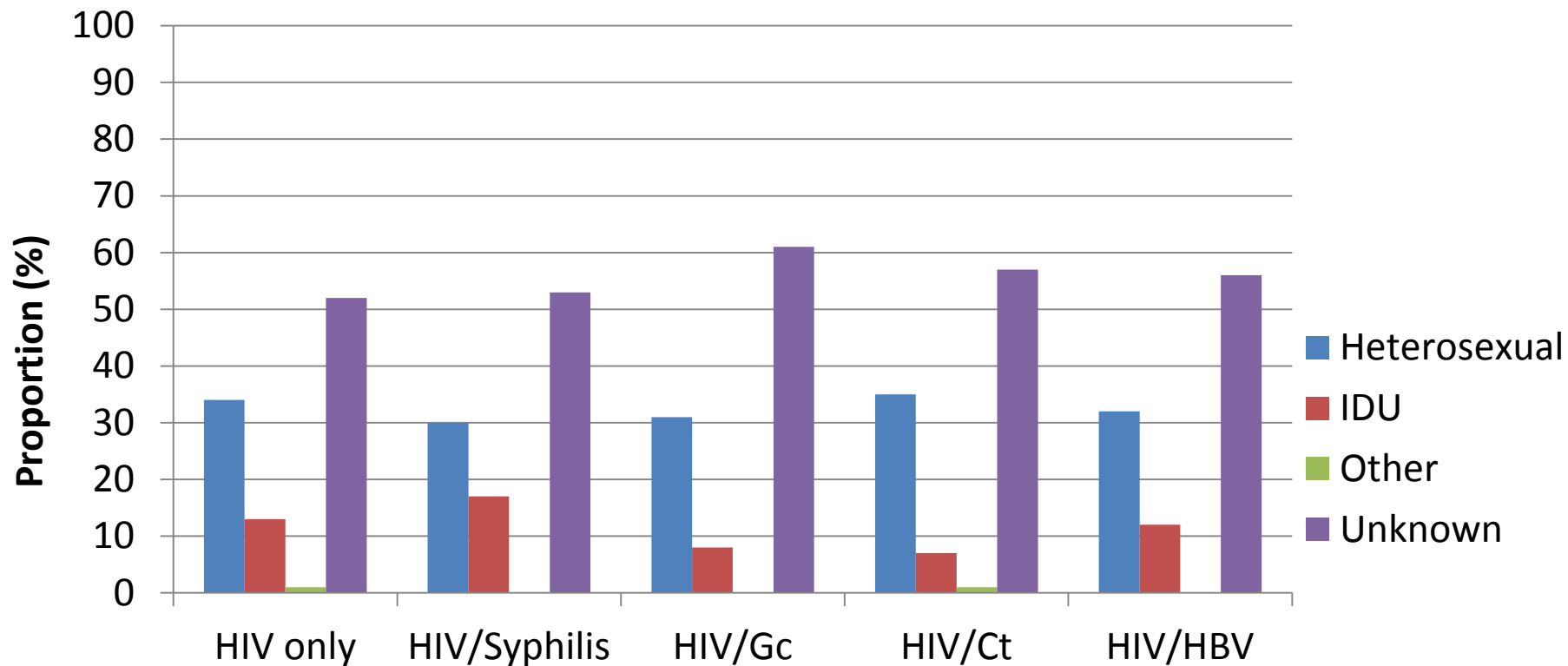
Diagnosed before, after or at time of HIV diagnosis



# Syndemic Disease, by Gender

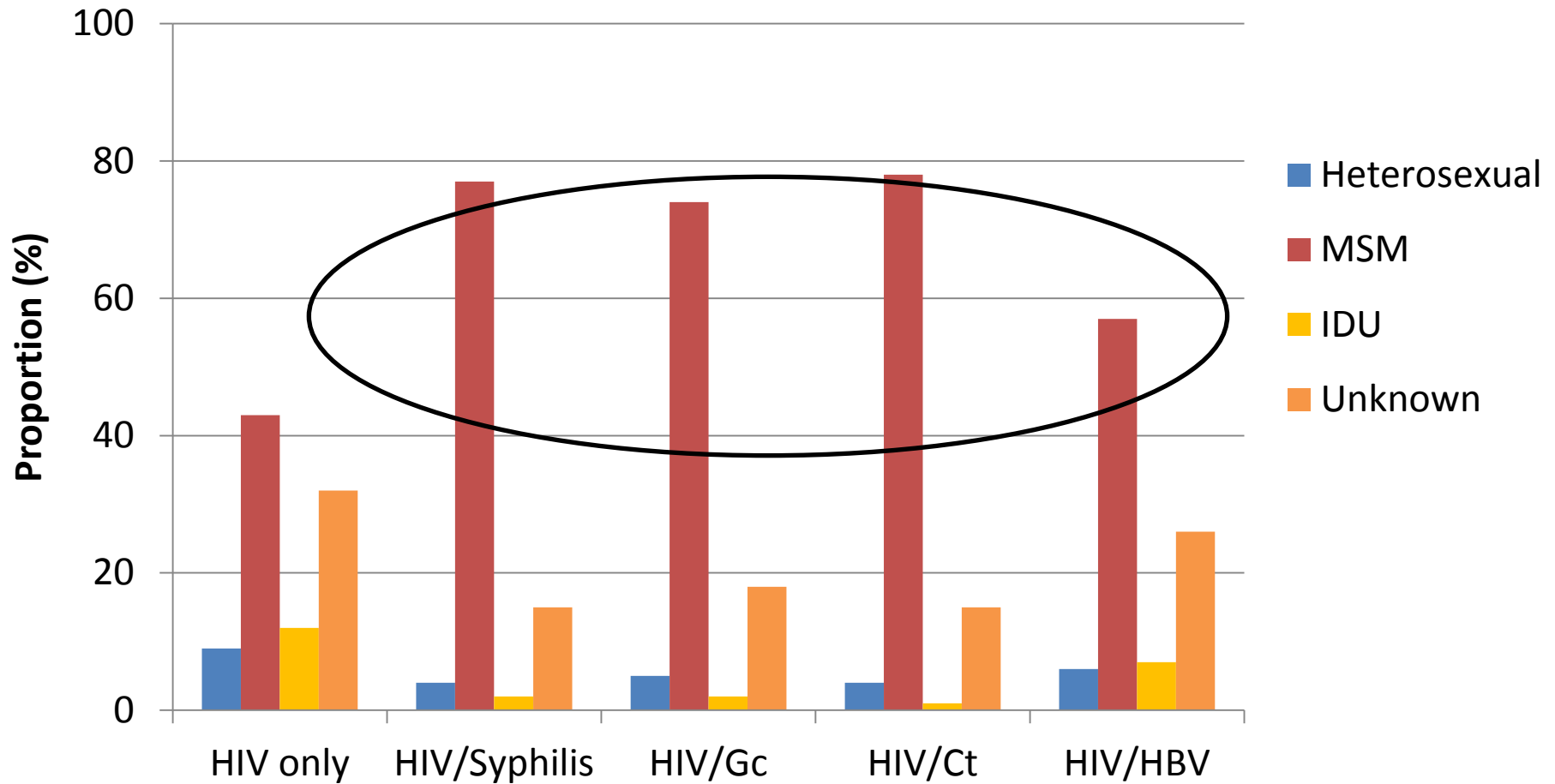


# Transmission Risk Groups in Women with Syndemic Disease

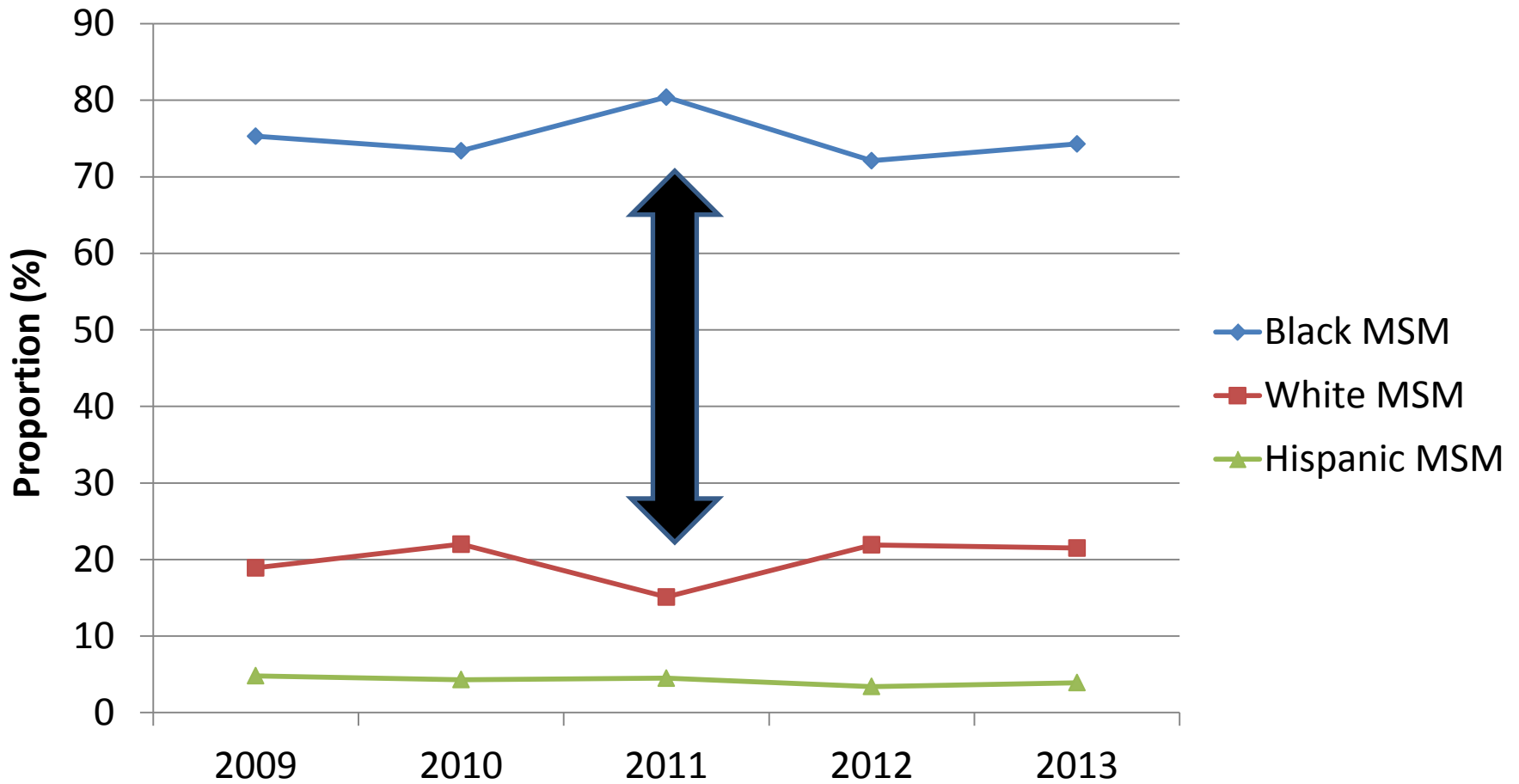




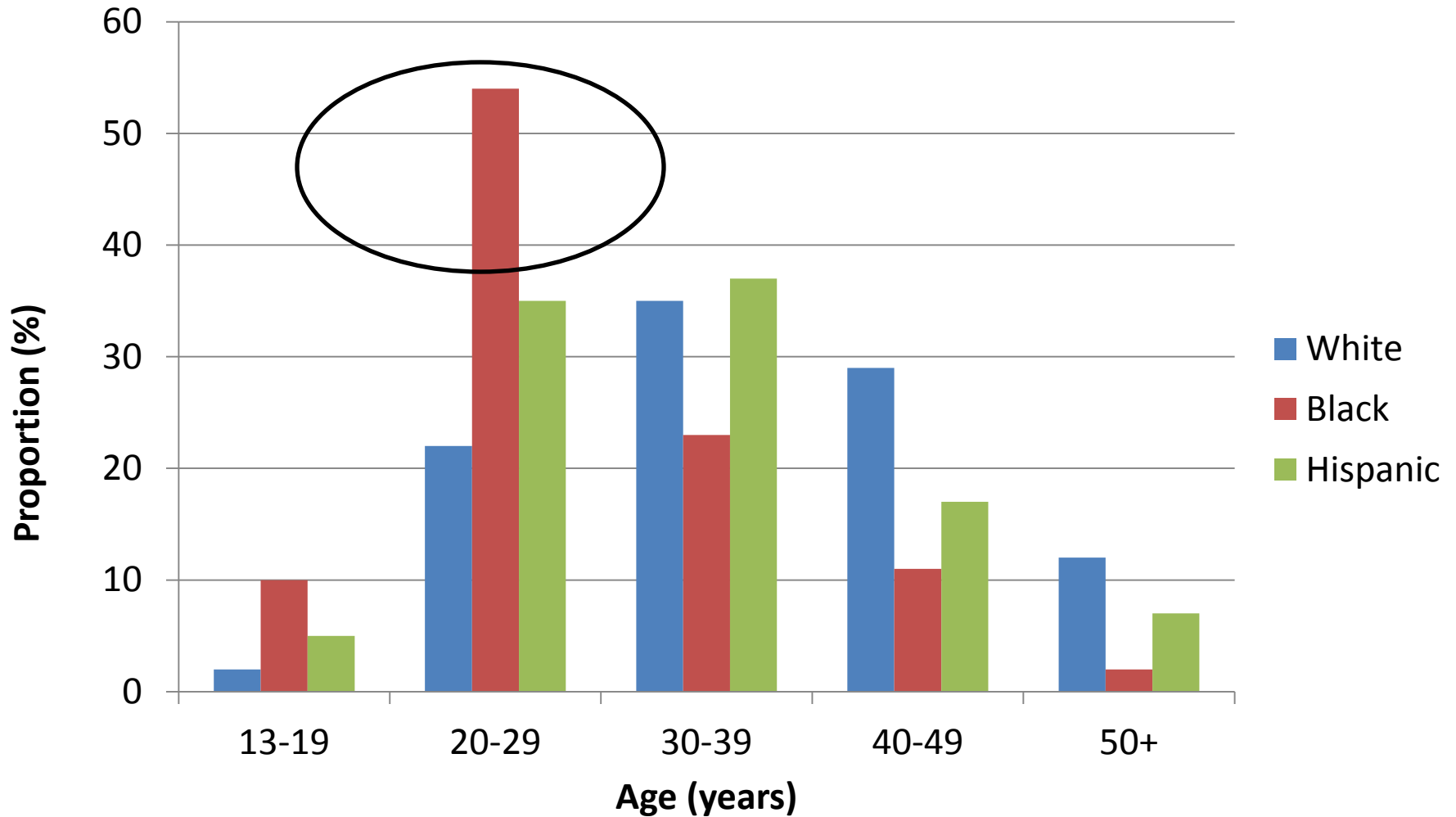
# Transmission Risk Groups in Men with Syndemic Disease



# Syndemic Disease among MSM, by Race/Ethnicity

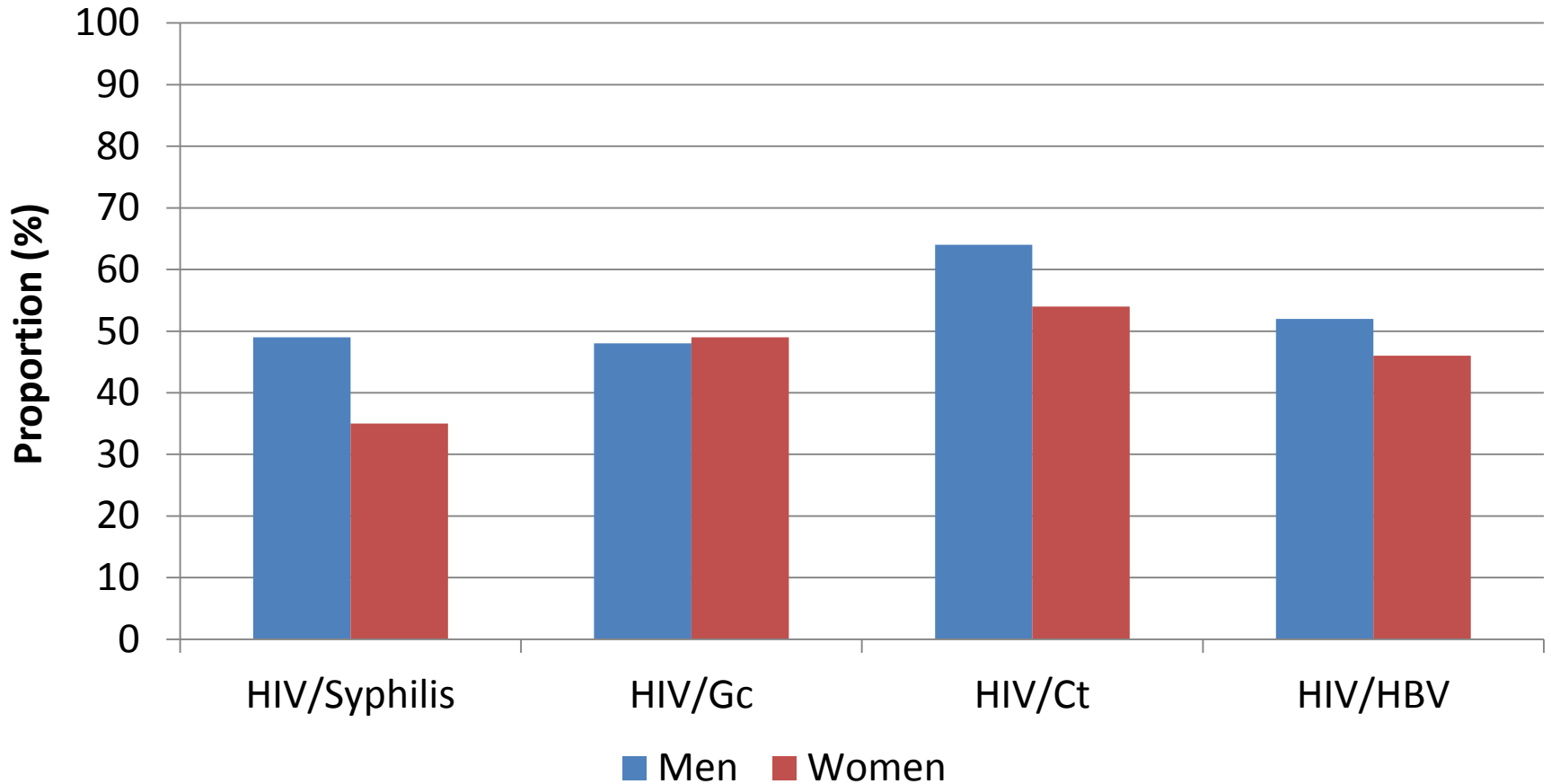


# Age Distribution among MSM with Syndemic Disease



# Co-infections among PLWHA

HIV Diagnosed  $\geq 1$  year before secondary infection





# Take Home Points

- Syndemic disease exists in NC
- High-risk groups: MSM, especially young black males
- HIV-positive individuals continue to acquire STIs after their HIV diagnosis



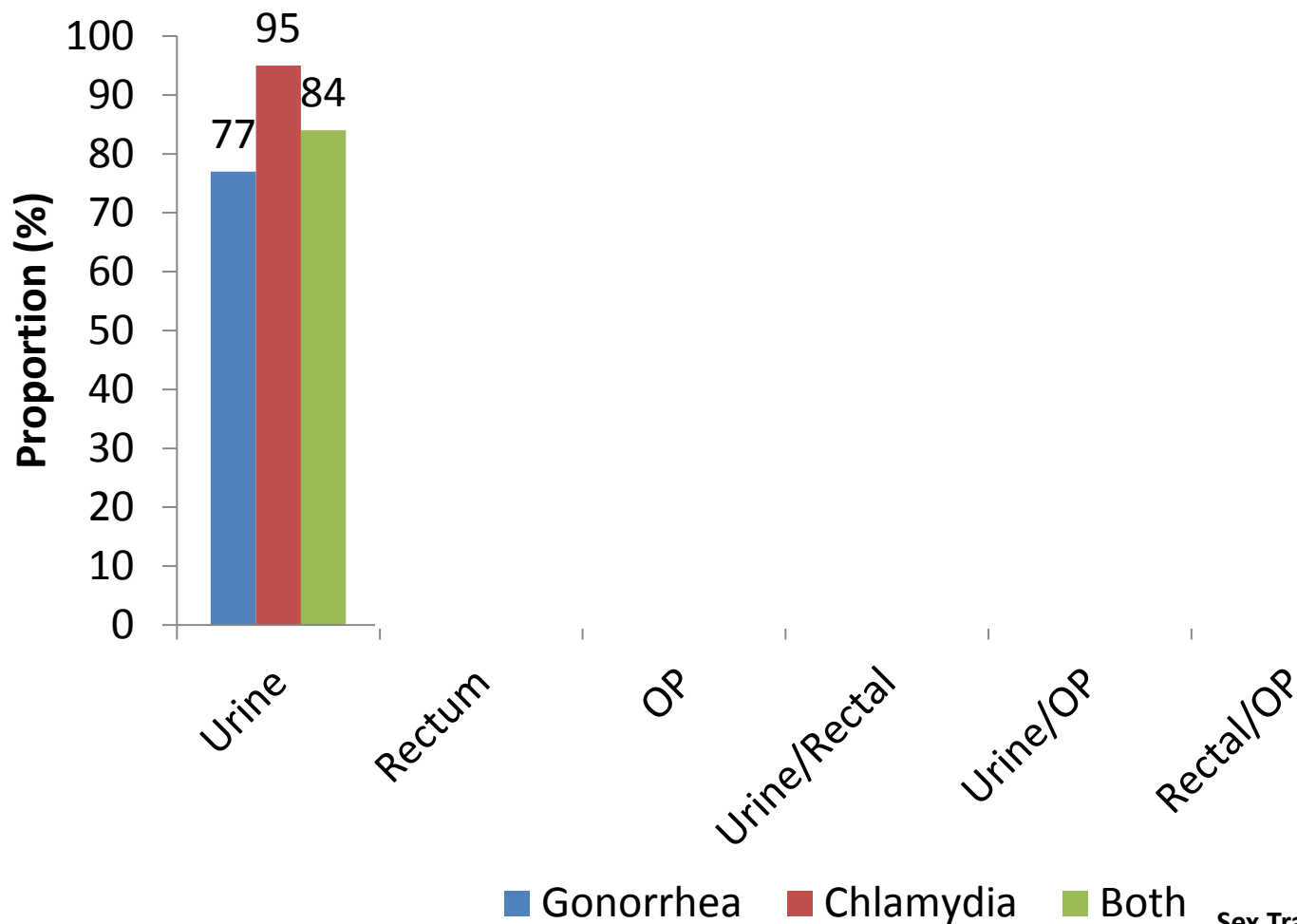


# Priority Interventions

- Syphilis/Gc/Ct
  - physical exam for early syphilis findings
  - extragenital NAAT screening in MSM
  - increase proportion of appropriately treated Gc cases
  - identify Gc treatment failures
- HIV
  - increase STI screening rates
  - link to care within 30 days of diagnosis
  - immediate ART initiation
  - PreP for high-risk populations



# Gc/Ct infections missed by urethral-only screening practices in asymptomatic MSM



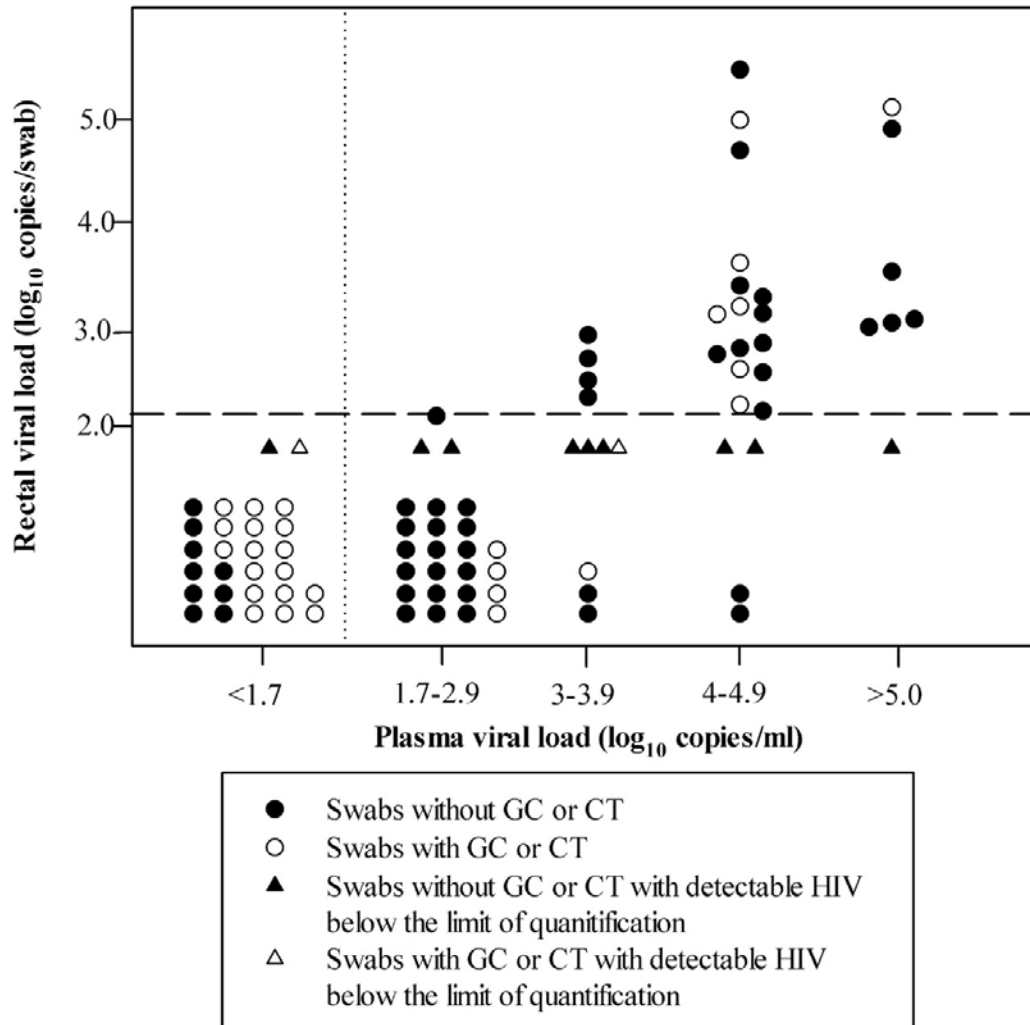


# Priority Interventions

- Syphilis/Gc/Ct
  - physical exam for early syphilis findings
  - extragenital NAAT screening in MSM
  - increase proportion of appropriately treated Gc cases
  - identify Gc treatment failures
- HIV
  - increase STI screening rates
  - link to care within 30 days of diagnosis
  - immediate ART initiation
  - PreP for high-risk populations

Questions ?

**Correlation between plasma viral load (log<sub>10</sub> copies/mL) and rectal viral load (log<sub>10</sub> copies/swab) for 91 rectal swabs from 80 men who have sex with men.**



Kelley C F et al. *J Infect Dis.* 2011;204:761-767