Recent increase in early syphilis among heterosexuals in Philadelphia County, 2006-2009

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BACKGROUND
- Rates of early syphilis have been stable in Philadelphia County from 2006-2008.
- Approximately 163 cases were reported every 6 months.
- Since 2002, most of the cases were among men, with 75-80% identifying as MSM.
- In 2007, New York City reported an increase in syphilis cases, followed by Washington, DC in 2008.
- In 2009, a dramatic increase of early syphilis cases occurred (Table 1).
- Most of the cases are still among MSM.
- However, a heterosexual outbreak was identified.

METHODS
- All early syphilis cases identified during 2006-2009 who lived in Philadelphia County were included.
- Early syphilis was defined as cases diagnosed with either primary, secondary, early latent, or unknown duration syphilis diagnoses.
- Cases were grouped according to gender and sexual behavior.
- Variables explored included: % of cases self identifying as non-Hispanic Black; % of cases self identifying as HIV-positive; and median age.
- Geo-mapping was utilized to explore trends of early syphilis by half year from 2006-2009. Rates by zip code were calculated with the location of female early syphilis cases depicted on each map.

RESULTS
- Overall, all race/ethnicity groups had an increase in early syphilis.
- All early syphilis cases identified during 2006-2009 who lived in Philadelphia County were included.
- Early syphilis was defined as cases diagnosed with either primary, secondary, early latent, or unknown duration syphilis diagnoses.
- Cases were grouped according to gender and sexual behavior.
- Females, Men who have sex with men ("MSM"), Men who have sex with women ("MSW"), and Men with unknown sexual behavior ("Unknown").
- Variables explored included: % of cases self identifying as non-Hispanic Black; % of cases self identifying as HIV-positive; and median age.
- Geo-mapping was utilized to explore trends of early syphilis by half year from 2006-2009. Rates by zip code were calculated with the location of female early syphilis cases depicted on each map.
- Denominator for rates were taken from the 2000 Census.
- Since 2006, MSM who self identify as HIV+ has increased from 42% to 60% of all MSM early syphilis cases, while other gender/sexual behavior did not exceed 10% in 2009 and have not exceeded 20% in the past 4 years (Figure 3).
- Denominator for % HIV positive includes those with unknown or undisclosed HIV status, which is about 20% of early syphilis cases each year.
- Visual examination of mapping output shows areas of interest but no consistent trend over time.
- From July-December 2009, syphilis among females living in West Philadelphia increased compared to prior 6 month periods (Figure 4).

DISCUSSION/CONCLUSION
- MSM continue to account for most of the early syphilis cases in Philadelphia County, but the recent increase among female cases suggest that syphilis is on the rise in the heterosexual community.
- Currently, it is unclear whether there is a link between the MSM and heterosexual outbreaks.
- Spike in female cases occurred in 2009, which is two years after a noted increase in congenital syphilis (2007).
- While there is not a visual trend over time geographically for early syphilis cases, the recent explosion in West Philadelphia suggests an area of focus.