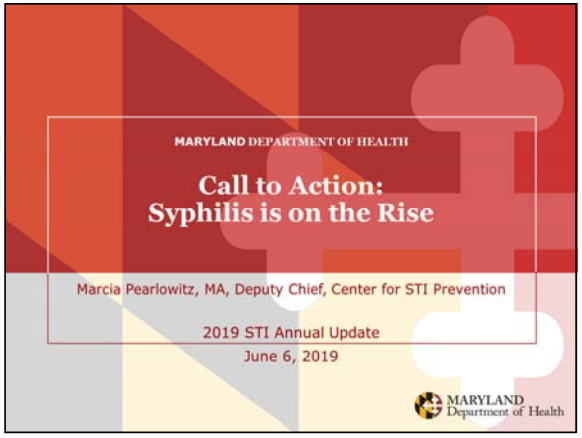
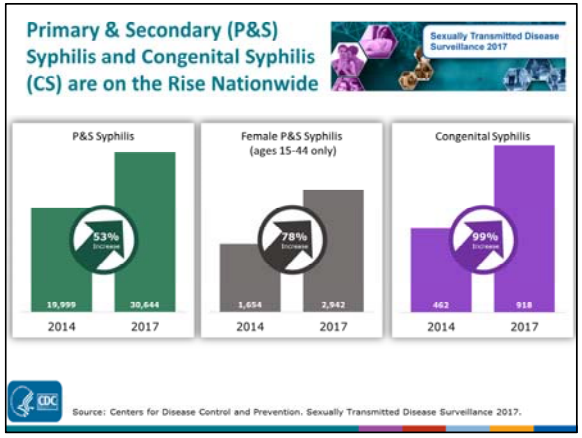
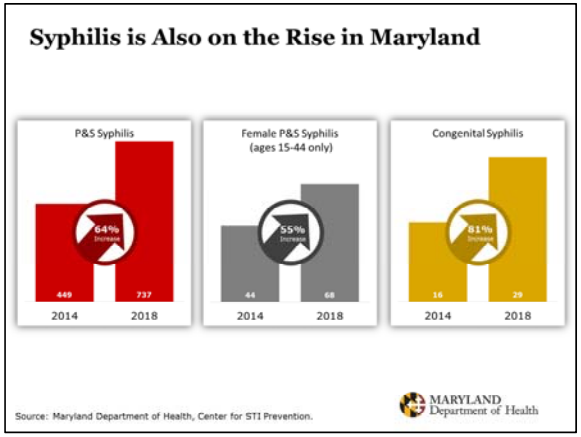




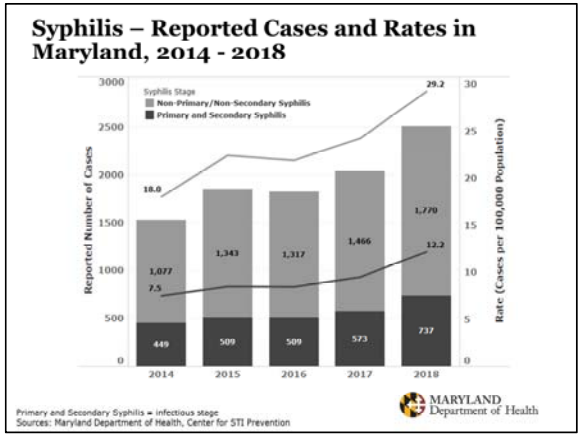
The CDC's most recent data found that reported rates of primary and secondary syphilis, the most infectious stages of the disease, are the highest that they have been in more than 20 years.

Rates have increased in every region of the country, in a majority of age groups, and across almost every race/ethnicity.

Preliminary 2018 data indicate continued increases nationwide.

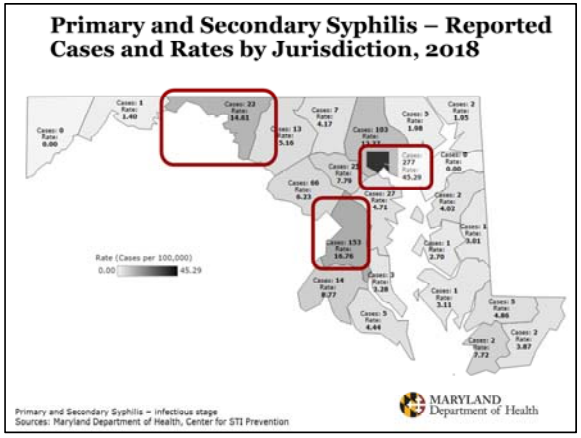


Similar to national trends Maryland has seen a 64% increase in primary and secondary syphilis from 2014 to 2018, a 55% increase among females aged 15-44 and an 81% increase in congenital syphilis.



737 cases of P&S syphilis were reported to MDH in 2018, a 29 percent increase from 2017 alone.

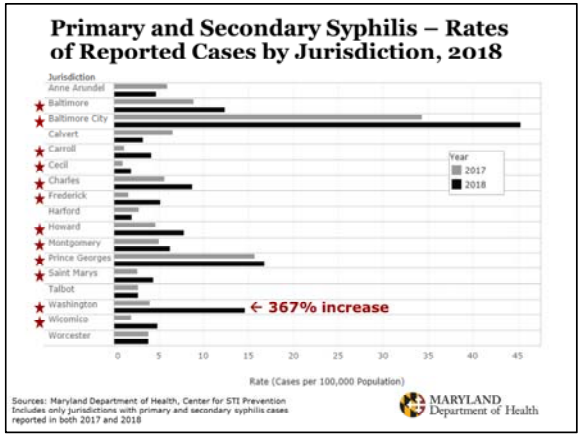
From 2014 to 2018, the rate of P&S syphilis infections increased from 7.5 cases per 100,000 to 12.2 cases per 100,000, a 63 percent increase overall.



P&S syphilis cases were reported in 22 of Maryland's 24 jurisdictions in 2018.

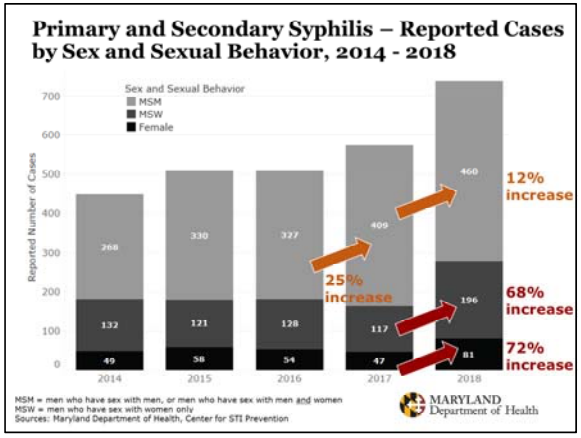
Baltimore City reported the most cases and had the highest rate of P&S syphilis among Maryland jurisdictions in 2018 (45.29 cases per 100,000 population).

Prince George's County had the second highest rate of P&S syphilis cases (16.76 cases per 100,000 population) closely followed by Washington County with a rate of 14.61.



12 of the 17 jurisdictions that reported cases of P&S syphilis for both 2017 and 2018 had increased P&S rates in 2018.

Of these Washington County had the highest rate increase of 367 percent!

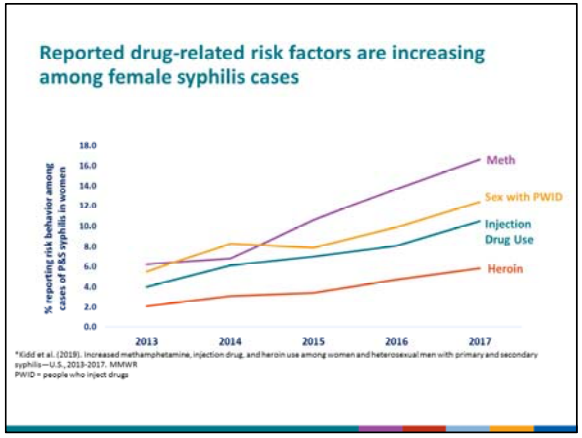


Men who have sex with men (shown in light grey here) represent a majority of the population infected with P&S syphilis both nationwide and here in Maryland.

Prior to 2018, Maryland's P&S increases were almost exclusively attributed to MSM transmission.

In 2018, 62.4 percent of Maryland cases were among MSM, only a 12% increase from 2017 compared to the 25% increase in the previous year.

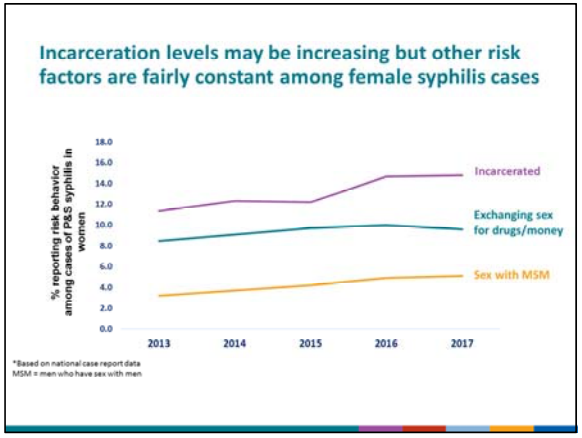
As you can see, increases in P&S cases were seen across all sex and sexual behavior groups in 2018, but much larger increases among men who have sex with women (MSW) and females led to an overall decrease in the proportion of P&S cases attributed to MSM populations.



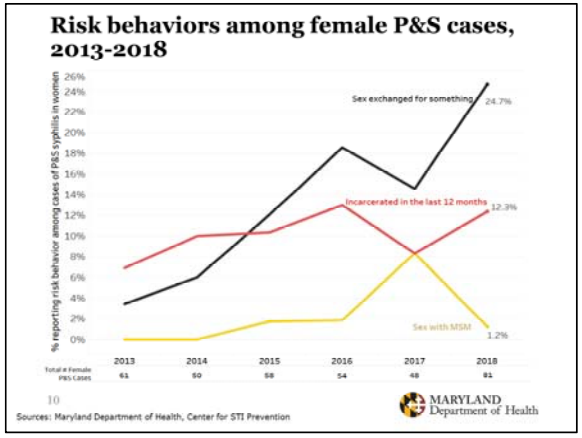
Digging a little deeper into what is behind this shift in affected populations lets flip back to some national data.

In February 2019 CDC released a surveillance supplement focused on national trends in reported drug-related risk factors among syphilis cases.

Specifically looking at female syphilis cases here you can see that all reported drug-related risk factors are trending upward from 2013 to 2017.



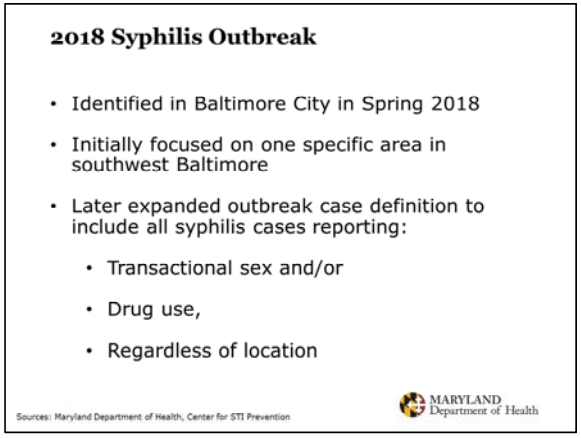
And national trends during this same period show increases in reported incarceration among female syphilis cases in the last 12 months while exchanging sex for drugs/money and sex with MSM remain fairly constant.



When looking at Maryland's data we see a somewhat different trend which is expected considering the outbreak identified in Baltimore City in the Spring of 2018.

Keep in mind that large national data sets provide more stable trends compared to local data with small sample sizes which are a bit more susceptible to abrupt changes.

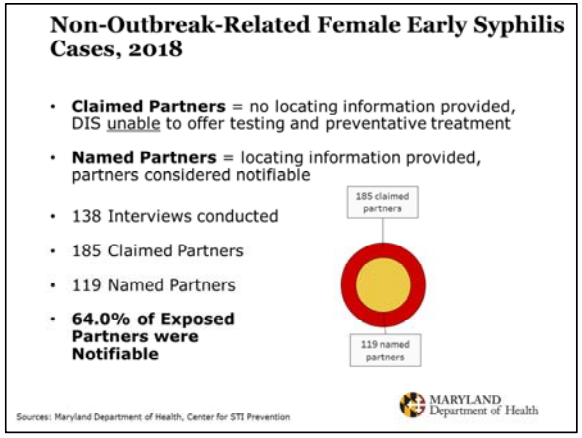
Regardless, our data clearly show that female syphilis cases are reporting a very noticeable increase in sex exchanged for something (money/drugs/housing/other).



Before we move on, lets quickly review the 2018 syphilis outbreak case definition.

- As Ken mentioned earlier, the outbreak was identified in Baltimore City in Spring 2018.
- The response initially focused on one specific area in southwest Baltimore.

- After a few months of monitoring cases we later expanded the outbreak case definition to include all syphilis cases reporting:
  - Transactional sex and/or
  - Drug use,
  - Regardless of location

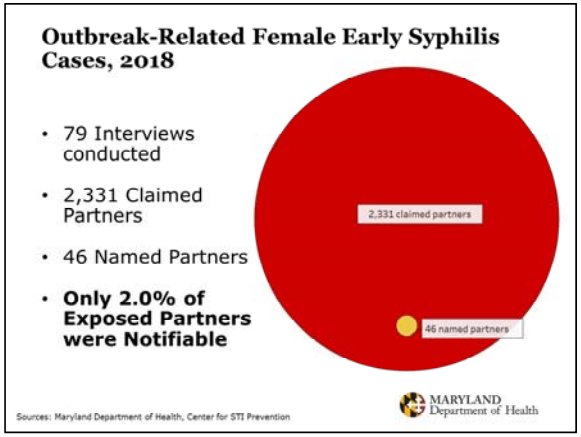


Unfortunately our data clearly indicate we likely have only scratched the surface when it comes to responding to this outbreak.

When DIS interview patients they routinely ask patients how many partners they have had during the interview period, also know as the infectious period. These partners are referred to as “claimed partners” -- the total number of partners who *may* have been exposed.

Next the DIS will engage the patient further in order to elicit the names and locating information for each of those claimed partners. Partners for whom the original patient provides a name and sufficient locating information are referred to as “named partners”. These are the individuals the DIS are able to attempt to locate, notify of exposure and offer testing and treatment if appropriate.

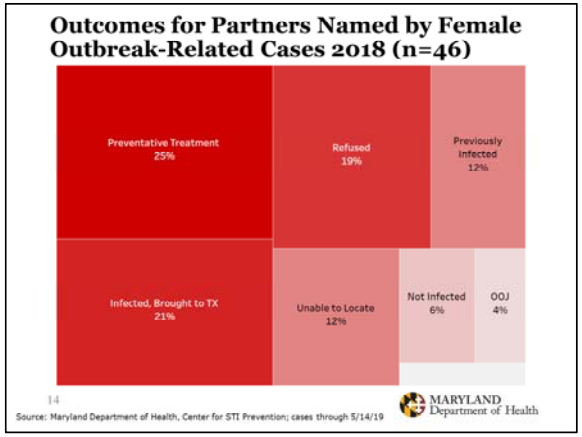
In 2018 a total of 217 female early syphilis cases were interviewed. Of those who are NOT associated with the outbreak (so individuals who did NOT report transactional sex and/or drug use), 138 female syphilis cases claimed 185 partners and named 119 partners. This means 64% of claimed partners were considered notifiable. These are the individuals for whom the DIS were able to attempt to locate and offer testing and treatment to intervene in the spread of disease.



Now looking at ONLY female early syphilis cases who did report transactional sex and/or drug use we see a very different picture.

Of those females who were associated with the outbreak, 79 interviewed female syphilis cases claimed a total of 2,331 partners yet were only able to name 46 partners. This means ONLY 2% of claimed partners were considered notifiable. These are the individuals for whom the DIS were able to attempt to locate and offer testing and treatment to intervene in the spread of disease.

And the remaining 98% are likely still unaware they may have been exposed to syphilis, and therefore most likely have not be screened and treated. And, if these untreated anonymous partners continue to exchange sex with these females they will also become reinfected – several of whom already have.

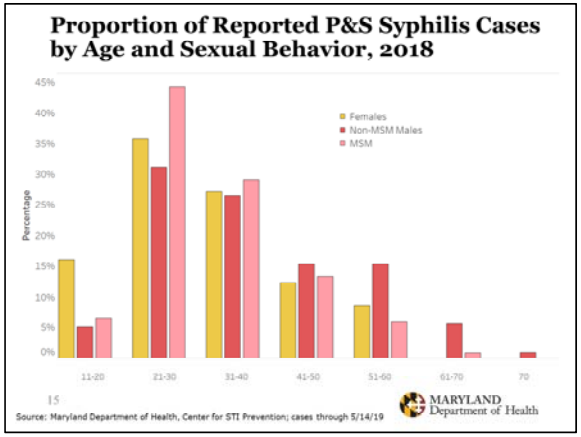


This graphic shows the outcomes for the 46 notifiable partners named by female outbreak-related cases investigated in 2018.

Each block represents a proportion of the total group of named partners. Darker colors indicate larger proportions, not positive versus negative outcomes.

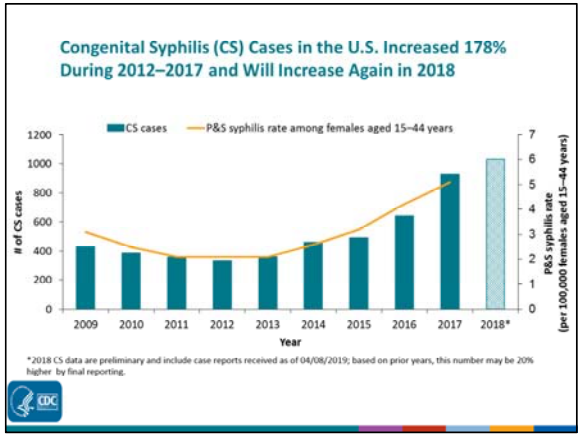
83% of these partners were notified of their exposure and 64% were tested and treated if appropriate.

So what about the remaining approximately 2,300 potentially exposed partners?



This bar graph shows that the majority of female P&S syphilis cases in 2018 (shown in yellow) were younger in age compared to their non-MSM male counterparts (shown in red).

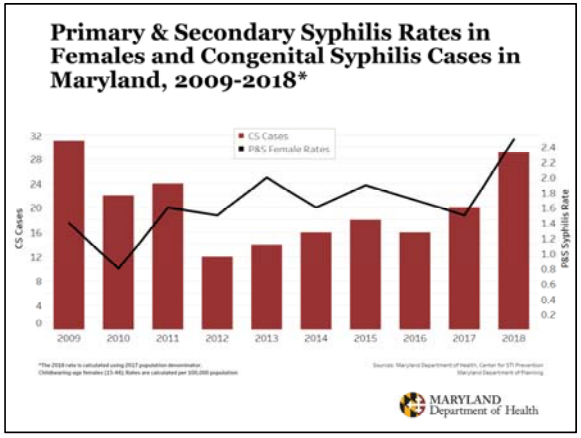
In fact, 22% of the non-MSM male P&S syphilis case were over the age of 50, compared to only 9% of females and 7% of MSM.



Unfortunately an increase in female syphilis case rates (depicted by the yellow line here) leads to a parallel increase in congenital syphilis cases (shown using the turquoise bars).

In 2017, there were a total of 918 reported cases of congenital syphilis nationwide. This preliminary 2018 congenital syphilis data includes case reports received as of 04/08/2019; based on prior years, this number may be 20% higher by final reporting when the surveillance report is released later this fall.

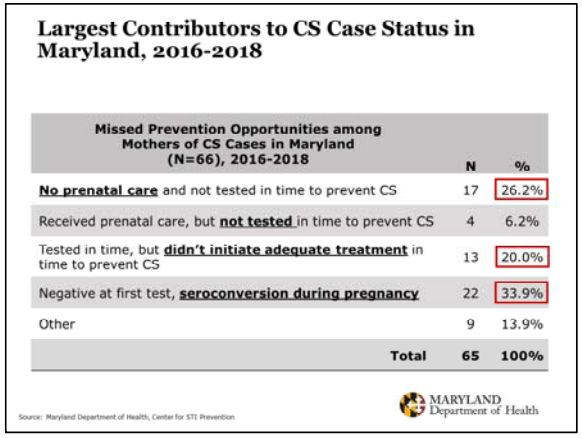
Now lets look at this trend in Maryland…



After several years of little change in CS rates, sharp increases beginning in 2017 have led to a near doubling in CS rates statewide in just two years.

In 2018, there were a total of 29 reported cases of congenital syphilis.

This is the highest number of reported CS cases in Maryland since 2009!



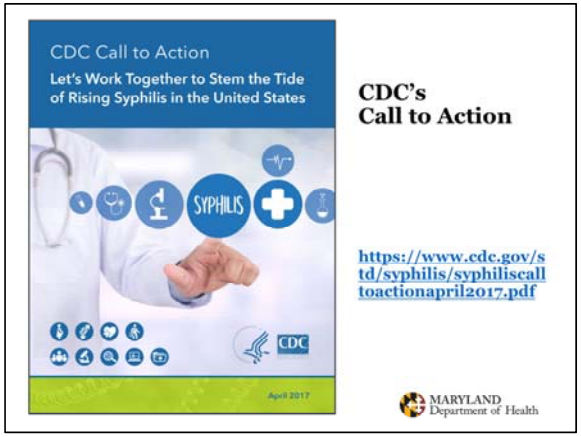
With respect to CS cases in Maryland, the largest contributors are:

Women who test negative initially and seroconvert during pregnancy (which is partially related to reverse sequence testing);

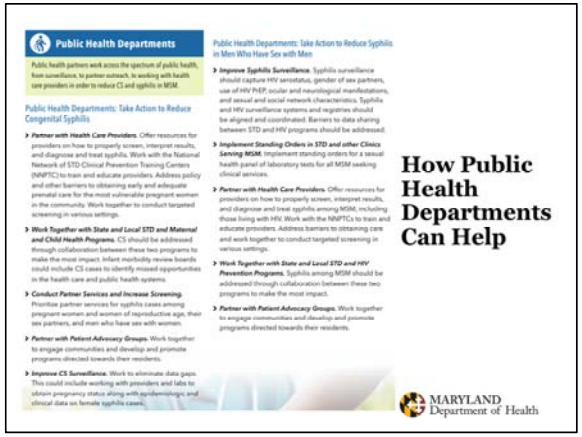
Women who have received no prenatal care (many of whom deliberately avoid care because they are using drugs during pregnancy and fear having their babies taken away); and

Women who are tested prior to delivery but not early enough to initiate adequate treatment 30 days before delivery in order to prevent CS.

So with all this information now what do we do…



Conveniently CDC released a Call to Action in April 2017 which succinctly highlights how LHD providers, private providers and the public can work together to stem the tide of rising syphilis rates in the US.

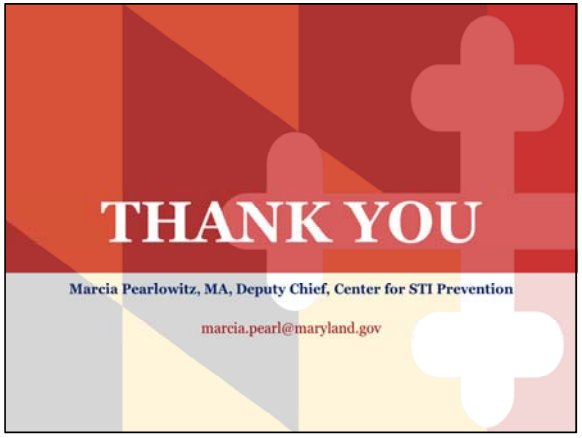


I encourage you to review the full document online however the highlights are:

(1)Partner with health care providers in your community – ensure they are aware of syphilis increases, know how to properly treat syphilis and know how and where to report cases and request assistance when needed.

(2)Partner with your local maternal and child health program – ensure you are maximizing opportunities to screen reproductive age women and leveraging existing home visiting programs to serve hard to reach women.

(3)Partner with your behavioral health and/or syringe exchange programs – ensure you are maximizing screening opportunities among these populations, many of whom may not be currently accessing STI testing.



If you have questions or would like additional information or data specific to your jurisdiction please email marcia.pearl@maryland.gov.