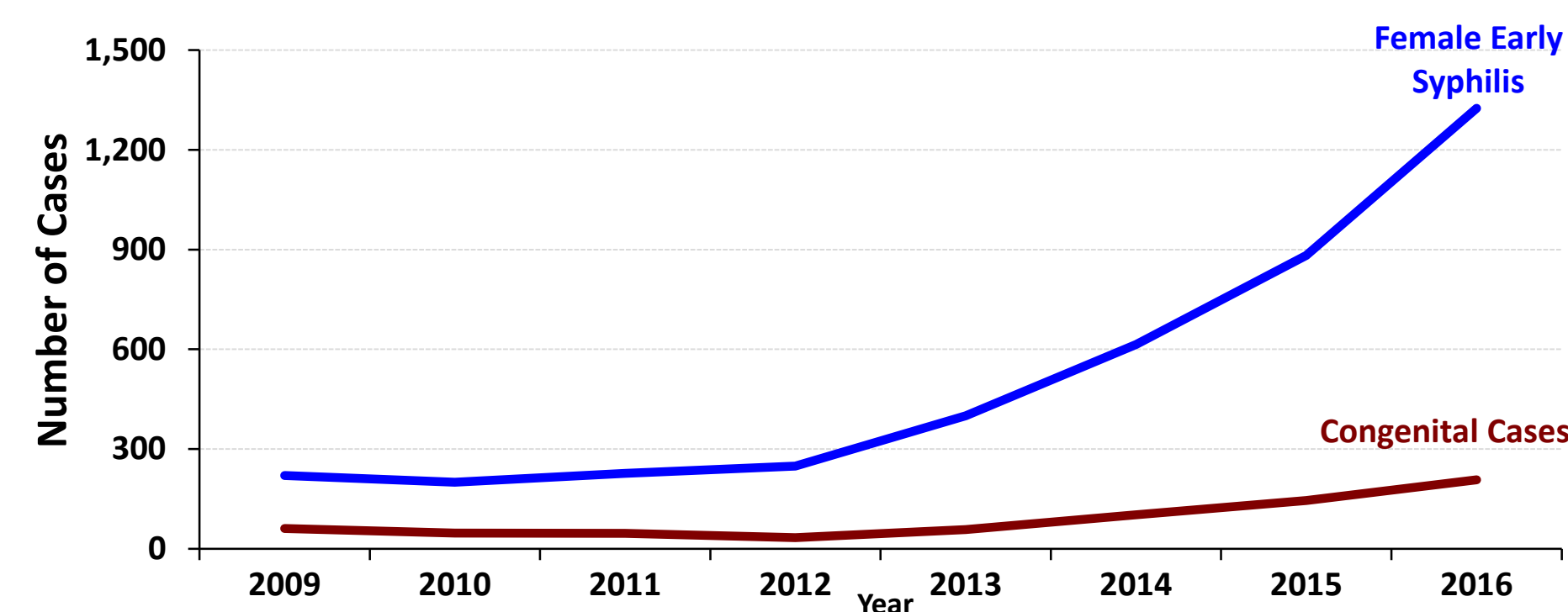


Sonali Kulkarni, Chief of Community and Public Health, Skulkarni2@dhs.lacounty.gov
 Integrated Correctional Health Services, Department of Health Services, Los Angeles County, missionpossible.lacounty.gov

Project Description

To address rising congenital syphilis cases, the Los Angeles County Department of Public Health and Correctional Health Services programs collaborated to implement a rapid syphilis screening program.

Female Early Syphilis* and Congenital Syphilis Cases California, 2009–2016

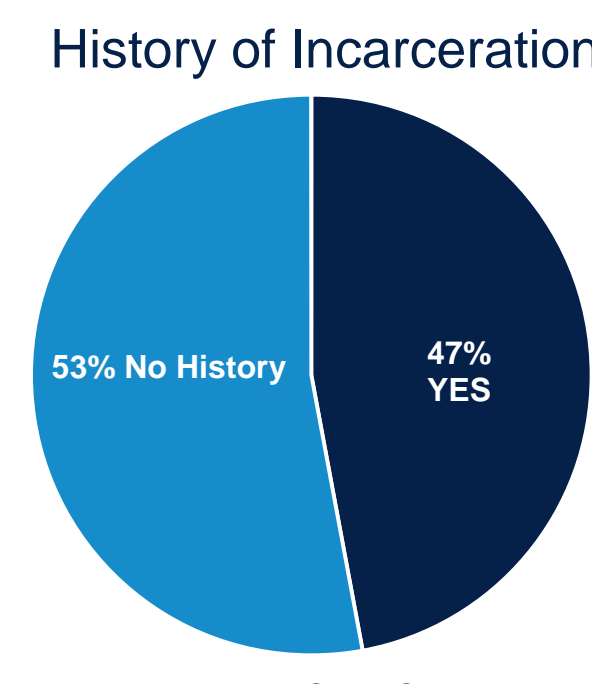
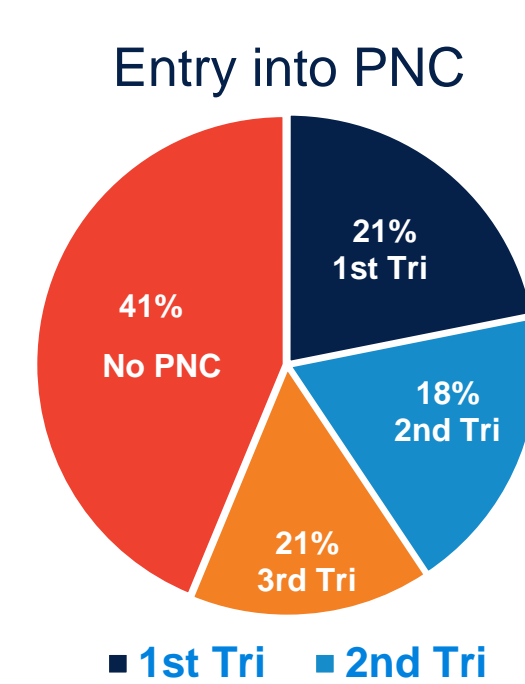
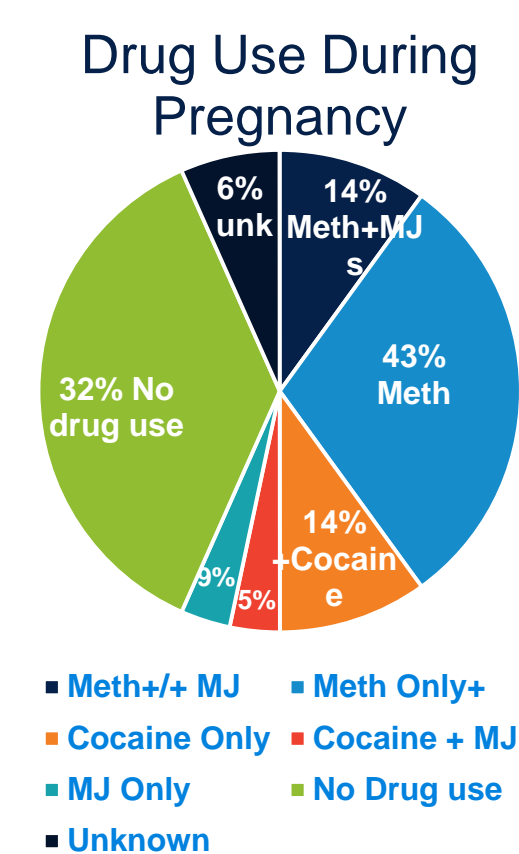


Problem Statement:

Congenital syphilis cases in Los Angeles County (LAC) increased 300% over the past four years leading to four stillbirths and one neonatal death. These cases are entirely preventable and represent sentinel events.

Discovery:

- I interviewed a range of local, state, and national stakeholders within public health, women's health, and health services to identify intervention points. Facilitated M&Ms on stillbirth and death cases.
- I was surprised that few people had any clear ideas or solutions. There were only a few organizations or programs working with high risk pregnant women that were clear partners.
- We refined our analysis and matched pregnant syphilis cases to LAC jail booking database and found >50% lifetime hx of incarceration and >25% had been incarcerated within same year as syphilis diagnosis.



Goal:

Prevent congenital syphilis cases by screening women whose circumstances put them at higher risk of no or late prenatal care and elevated risk of syphilis by conducting the first national pilot of newly FDA approved rapid point-of-care syphilis test in the Los Angeles County women's jail (Century Regional Detention Facility (CRDF)).

Outcome-oriented Objective:

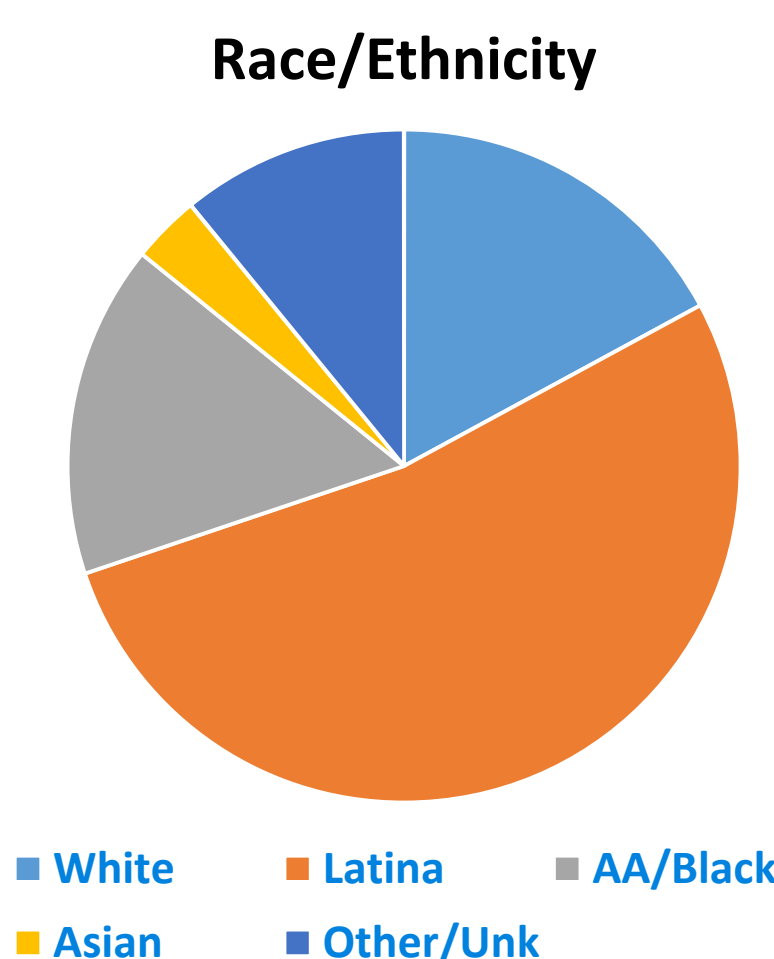
By June 30, 2018, conduct rapid syphilis testing in a correctional facility to screen 200 women of childbearing age and establish feasibility, acceptability, and identify at least 2 cases of congenital syphilis.

Results

Return on Investment Projection

| | Assumption 1: 1% positivity | Assumption 2: 2% positivity |
|--|--------------------------------|--------------------------------|
| Goal of clients tested for syphilis | 200 | 200 |
| One-time costs (test kit + counselor time) per client* | \$45 | \$45 |
| Total program costs | \$9,000 | \$9,000 |
| CS admission costs avoided per infant | \$9,989 | \$9,989 |
| Cost savings | \$19,978 | \$39,956 |
| Total benefits | \$19,978 | \$39,956 |
| Net benefits | \$10,978 | \$30,956 |
| ROI | 122% | 344% |

Demographics and Syphilis Prevalence of Women Tested in Jail



- A total of 247 women were screened over 30 days.
- There was high level of acceptability with over 30 women agreeing to testing daily.
- Seven women (2%) tested positive for syphilis and needed further workup.
- Only two women (0.8%) were found to have a new diagnosis of syphilis.
- Race/ethnicity of women screened closely reflected that of pregnant women with syphilis in LAC, we did not collect other information such as drug use.

Lessons Learned

- This pilot represented the first use of rapid syphilis testing technology within a correctional institution. We successfully determined the feasibility and acceptability of doing a rapid syphilis screening pilot in the LAC women's jail.
- The positivity of testing was lower than anticipated, which we believe may be due to the location of testing. We were only able to test in a normal security dormitory, so were not able to test women who are quickly released from jail (many of whom are picked up on commercial sex work charges) and we were not able to test women who suffer from severe mental illness.
- In the next iteration, we will explore testing in the mental health housing dorm or work with the mental health providers to have them order syphilis tests on all their patients.
- I transitioned to a new role as Chief of Community Health for LA County Integrated Correctional Health Services (DHS) where I continue to support and strengthen public health collaborations.

Next Steps:

- During the discovery process, we were able to identify two other key strategies to prevent congenital syphilis which include:
 - 1) Targeted medical provider educational campaign similar to pharmaceutical detailing but with key messages around increasing morbidity and need for testing (completed) and
 - 2) Social marketing campaign to inform women in LAC about rising syphilis rates (not yet completed).

Mission Model Canvas

| | | | | |
|---|---|--|---|--|
| Key Partners <ul style="list-style-type: none"> Los Angeles Integrated Correctional Health Services medical and nursing leadership California State Department of Public Health Los Angeles County Health Officer | Key Activities <ul style="list-style-type: none"> Develop protocol for testing and follow up Procure test kits Train test counselors Train RNs and medical providers to ensure appropriate treatment | Value Propositions <p>Screen 200 women of child bearing age for syphilis will yield cases that would otherwise be high risk for becoming congenital syphilis cases.</p> | Buy-in & Support <ul style="list-style-type: none"> Women's jail custody staff Women's jail medical staff Public Health investigators | Beneficiaries <ul style="list-style-type: none"> Women in LA county Department of Public Health |
| Key Resources <ul style="list-style-type: none"> Clarification on State Health and Safety Code and CLIA waived tests Approval to divert staff | | Deployment <ul style="list-style-type: none"> Test kits Data management system | | |
| Mission Budget/Cost <p>Test Kit costs (\$15)+ Staff time (assuming test 3 people per hour) = \$45/client</p> | | | Mission Achievement/Impact Factors <p>Averted congenital syphilis cases result in reduced morbidity and mortality as well as result in decreased societal healthcare expenditures (ROI).</p> | |