

Fetal Infant Morbidity Review for Congenital Syphilis and Perinatal HIV

Texas Department of State Health Services HIV/STD Program

Background

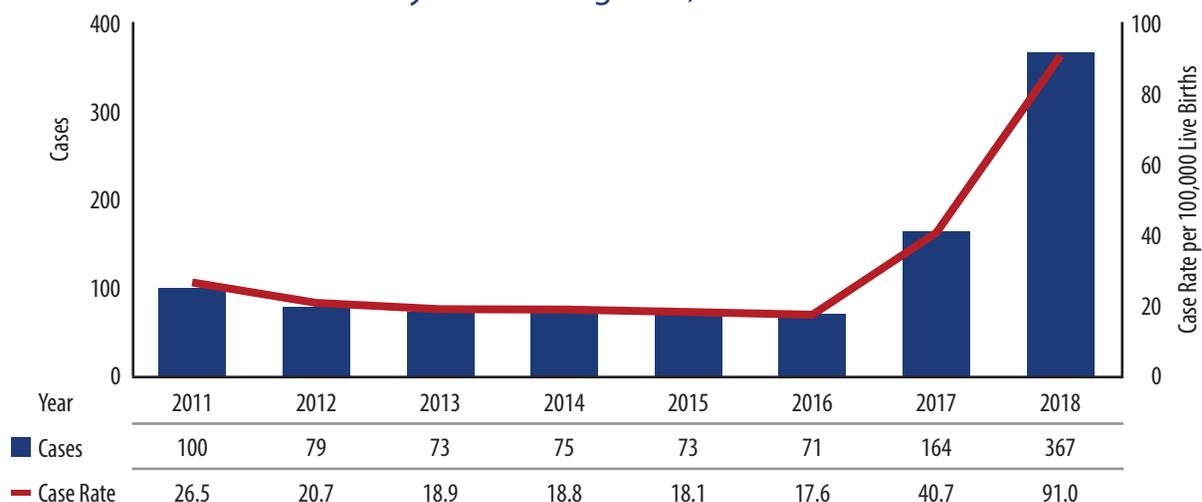
Vertical transmission (also known as mother-to-child transmission) of HIV or syphilis can occur during a woman’s pregnancy and during delivery. Proper treatment of the mother can greatly reduce the chance of transmission.

Texas launched a pilot initiative in 2015 to investigate the missed opportunities that lead to transmission of syphilis and HIV. The goal is to use the findings to change health care systems to prevent future transmission. DSHS, Harris Health, and Baylor College of Medicine created the pilot of the Texas Fetal and Infant Morbidity Review of Syphilis and HIV (FIMRSH) to address the burden of both perinatal HIV and congenital syphilis starting in the Houston area.

When vertical transmission of syphilis occurs during pregnancy or delivery, this is called congenital syphilis. The congenital syphilis rate has been rising across the country since 2013. The number of cases of congenital syphilis in 2017 in the U.S. was the highest since 1997.¹ In 2018, 367 congenital syphilis cases were reported in Texas, a rate of 91.0 per 100,000 live births. This represents a 124% increase relative to 2017, when 164 cases were reported at a rate of 40.7 cases per 100,000 live births.²

Vertical transmission of HIV during pregnancy, delivery or breastfeeding is called perinatal HIV. Unlike congenital syphilis, perinatal HIV transmission has declined by more than 95% since the early 1990s in the U.S.³ Since 1999, over 7,000 infants were born to women living with HIV in Texas. From 2013 through 2017, there were 18 infants diagnosed with HIV in Texas.⁴ Although the number of infants diagnosed with HIV may seem small, they are representative of the many recurring missed opportunities to prevent perinatal transmission of HIV.⁵

Texas Congenital Syphilis Cases and Rates by Year of Diagnosis, 2011-2018



Methods⁶

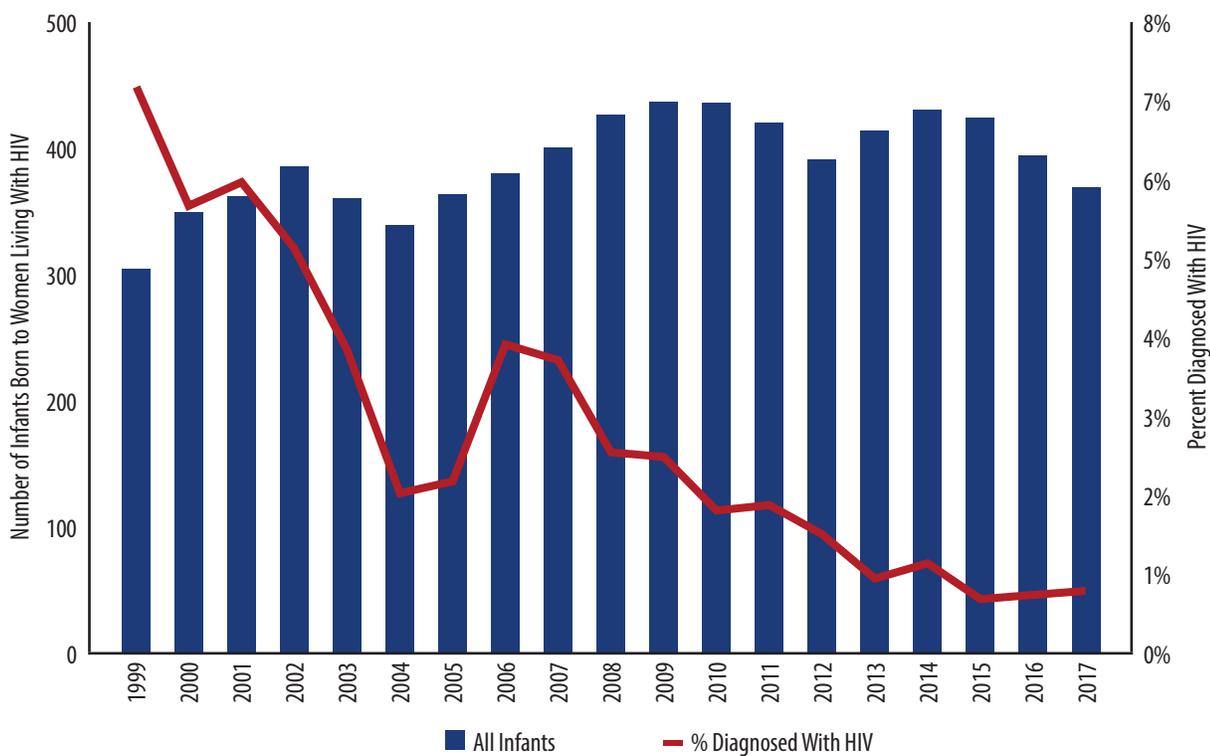
The FIMRSH methodology involves several processes: data collection, case reviews, and community action with an overall goal to improve services for women, infants, and families.

The FIMRSH process begins by selecting cases for review. Priority is given to cases with potential gaps or barriers in services or systems issues. An in-depth medical record abstraction is done to gather data about these cases from multiple sources, including public health and medical records. Also critical to the process is an interview with the mother to learn from the woman's unique perspective.

The second step brings in the Case Review Team (CRT). The CRT includes community members and professionals from a wide range of public and private agencies that provide services for women, infants, and families. The CRT reviews cases quarterly to identify barriers to care and deficiencies in services the family did or did not receive. They then make recommendations for improvement.

The final step is the Community Action Team (CAT). The CAT consists of a diverse group of community leaders. They implement the CRT's recommendations by initiating system changes in the community, prioritizing interventions to improve service systems and resources.

Infants Born to Women living with HIV in Texas, 1999-2017



Findings and Action

CRT meetings have been held regularly in Houston since December 2015. The CRT has reviewed 48 cases (22 perinatal HIV, 20 congenital syphilis, and 6 dual diagnosis of HIV and syphilis) as of August 2019. The CRT identified several barriers:

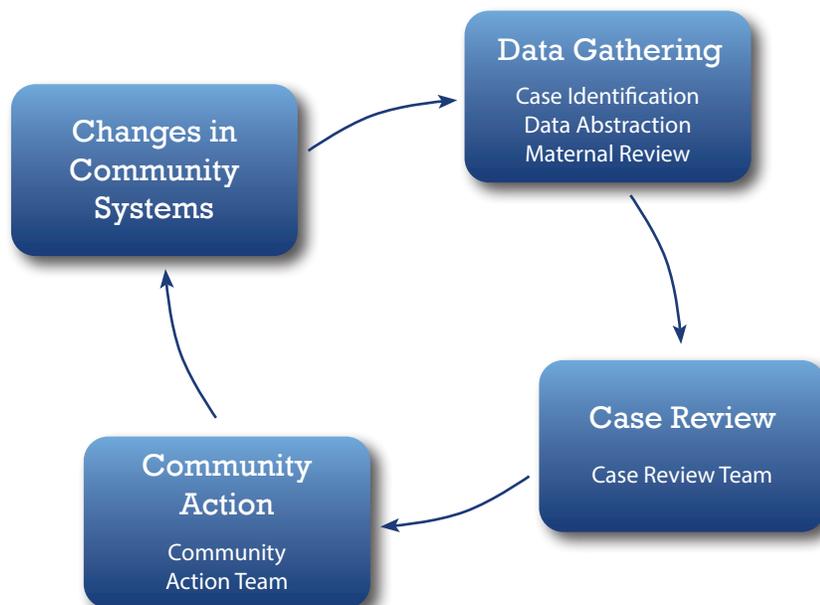
- lack of HIV testing with other STD diagnoses,
- incomplete HIV testing per the diagnostic algorithm,
- incomplete linkage to HIV care services,
- lack of family planning services,
- insufficient housing and transportation support,
- insufficient treatment for substance use and mental illness, and
- lack of partner services follow up.

The first CAT meeting was held in January 2017. The CAT has addressed both specific case-related items and larger community-related issues including:

- educating providers on the Texas testing laws for pregnant women,
- initiating testing policies for syphilis and HIV in local correctional facilities,
- improving timeliness of laboratory reporting, and
- increasing community awareness of available resources for:
 - persons living with HIV who are out of care or inadequately engaged in care,
 - persons experiencing domestic or intimate partner violence,
 - persons with substance use disorder
 - persons experiencing housing instability, and
 - persons needing free or low cost STD and HIV testing.

The Houston FIMRSH core team merged the CRT and CAT meetings in 2018 to allow recommendations to be made during the case review meetings.

FIMRSH Methodology



FIMR for congenital syphilis was established in San Antonio in 2018. The group has reviewed 12 cases as of August 2019.

FIMR congenital syphilis activities are planned for Dallas-Fort Worth and Public Health Region 11 (Rio Grande Valley) in 2020.

Conclusion

FIMRSH has made progress in addressing systems of care for women, infants, and families. A notable improvement is improved collaboration with laboratory services to improve access to labs within electronic medical records resulting in more successful linkage of pregnant women living with HIV to care. Other systems improvements include the addition of questions for perinatal HIV and congenital syphilis to the Annual Hospital Survey, improved communication with collaborators involved in post-incarceration linkage to care, increased provider education, supporting changes in Medicaid transportation rules to allow women to bring children with them to prenatal appointments, and collaboration with Medicaid and Ryan White providers.

References

1. Centers for Disease Control and Prevention (CDC). Congenital Syphilis Fact Sheet; Dated September 26, 2017
2. Texas Department of State Health Services. Texas 2018 STD Surveillance Report; Dated August 20, 2019
3. Centers for Disease Control and Prevention (CDC). HIV and Pregnant Women, Infants, and Children; Dated June 12, 2019
4. Texas Department of State Health Services. TB/HIV/STD Epidemiology & Surveillance Branch, HIV Surveillance Data. Perinatal Data for Prevention. November 2018
5. Deverson, C., Levison, J., Russell K., Eppes, C., Filipowicz, R., McFarlane, J., Minnerly, S. (September 2016). FIMRSH: An Adaptation of a Novel Methodology (Fetal and Infant Mortality Review or FIMR) for the Review of Perinatal HIV and Congenital Syphilis Cases in Texas. Poster presented at the CityMatch Conference, Philadelphia, Pa.
6. FIMR/HIV Prevention Methodology National Resource Center. 2015 FIMR/HIV Manual of Operations

RESOURCES FOR FIMR

FIMR-HIV www.fimrhiv.org

Texas TRAIN Courses
Implementing Routine HIV Testing
in Texas
Perinatal HIV Prevention 2014 Update

Perinatal HIV Hotline
[nccc.ucsf.edu/clinician-consultation/
perinatal-hiv-aids/](http://nccc.ucsf.edu/clinician-consultation/perinatal-hiv-aids/)
Call for a Phone Consultation 24 hours,
Seven days a week: 1-888-448-8765

**2015 Sexually Transmitted Diseases
Treatment Guidelines**
cdc.gov/std/tg2015/syphilis.htm

**HIV, Syphilis and HBV Testing and
Pregnancy: State Requirements for
Texas Clinicians**
[dshs.texas.gov/hivstd/info/
edmat.shtm](http://dshs.texas.gov/hivstd/info/edmat.shtm)

DSHS TB/HIV/STD Section

(512) 533-3000
dshs.texas.gov/hivstd

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