

# Elimination of Mother-to-Child Transmission of HIV: New York State Perspective

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## BACKGROUND

- The Centers for Disease Control and Prevention (CDC) defines elimination of mother-to-child-transmission (MTCT) of HIV as a transmission rate of <1% of exposed infants and <1 case/100,000 live births.
- New York State Department of Health (NYSDOH) monitors and comprehensively evaluates HIV exposed births as well as investigating all occurrences of MTCT.
- Approximately 500 HIV positive mothers give birth annually in New York State (NYS).
- In addition to universal prenatal HIV testing of pregnant women, all newborns are screened for HIV at birth and exposed infants undergo follow-up testing to determine final infection status.

FIGURE 1: Milestones in Perinatal HIV Screening and Prevention

1965	New York State's Newborn Screening Law (Public Health Law 2500-a) passed
1987	De-identified heel-stick HIV antibody testing used to determine prevalence of HIV infection in childbearing women
1996	Newborn Screening Law amended to include HIV screening (Public Health Law 2500-f) – Implemented February, 1997 Diagnostic testing laboratory established to help determine infant infection
1999	Expedited Testing regulations implemented to screen mothers in labor/delivery if no prenatal test history available
2008	Health Alert – Repeat testing in 3 <sup>rd</sup> trimester

## METHODS

Using data from newborn HIV antibody screening, diagnostic testing of exposed infants and medical record review, NYSDOH assesses:

- Prenatal HIV testing on all women giving birth in the state;
- HIV prevalence in women giving birth;
- MTCT;
- Quality of care in pregnant/delivering HIV-positive women, as well as exposed and infected infant;
- Identification of missed opportunities to prevent MTCT.

FIGURE 2: Perinatal Surveillance Data Process

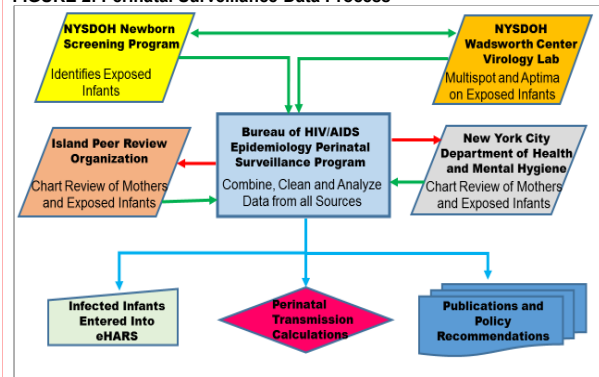


FIGURE 3: Number and Percent of HIV Positive Women by Year of Delivery

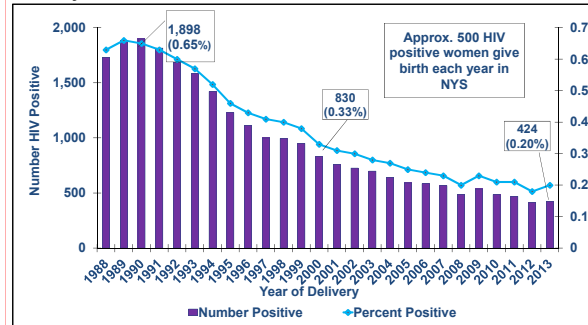


FIGURE 4: HIV Prevalence by Race/Ethnicity by Year of Delivery

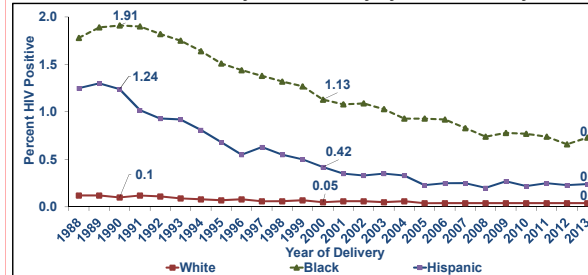


FIGURE 5: HIV Prevalence by Region by Year of Delivery

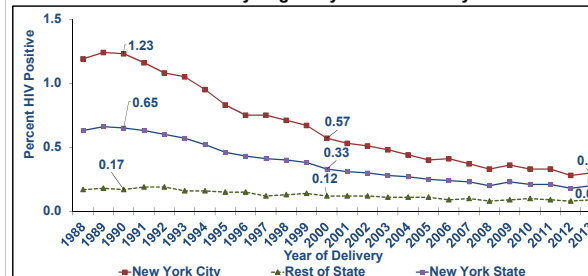


FIGURE 6: Percentage of Women aware of HIV Status Prior to Delivery

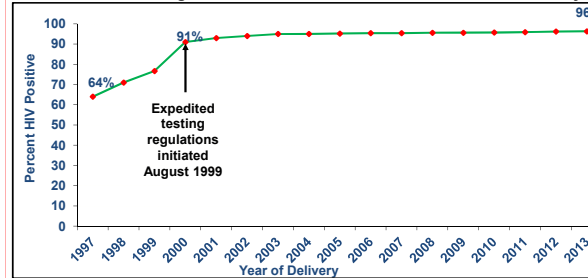


FIGURE 7: Drug Use, and Mental Health Issues among HIV-Positive Mothers Delivering in 2013 (based on completed record reviews)

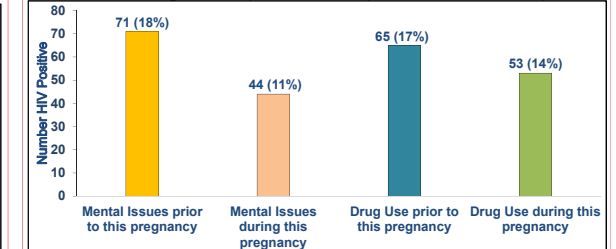
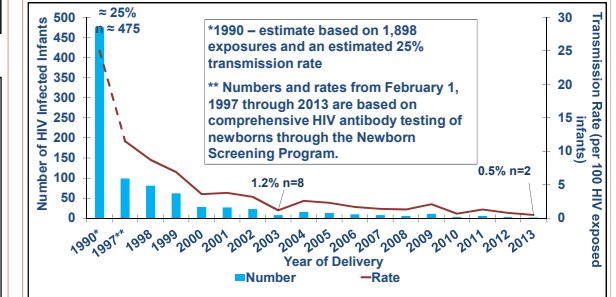


FIGURE 8: MTCT of HIV infected Infants



## RESULTS

- In 2013, 236,283 live births were recorded in New York State hospitals; including 462 HIV exposed infants.
- Two infants were confirmed HIV-infected, yielding a MTCT rate of 0.5% and 0.85 MTCT cases per 100,000 live births.
- Prevalence of HIV in childbearing women is higher among Non-Hispanic Blacks (0.73%) compared to Non-Hispanic Whites (0.04%) and Hispanics (0.24%).
- New York City has higher prevalence compared to other areas of NYS (0.3% versus 0.09%).
- Ninety-six percent of women were aware of their HIV status prior to delivery.
- Though data are incomplete, substance abuse was documented in 14% of exposed births including 1 mother who delivered an infected infant (Fig.7).

## CONCLUSION

- Since 1990, NYS has experienced a 99.5% decrease in the number of HIV infected infants born in the state and a 77% decline in the number of HIV-positive women giving birth, resulting in NYS meeting the CDC definition for elimination of MTCT in 2013
- Elimination of MTCT in 2013 was largely possible due to the comprehensive set of initiatives undertaken by NYS including but not limited to increased prenatal screening (including third trimester testing), expedited testing at delivery, newborn screening for HIV, and prenatal, intrapartum and neonatal ARV use.
- Seroconversion during pregnancy, substance abuse, mental health disorders, and no or limited prenatal care are barriers in meeting the goal annually. Continuing current initiatives and targeted efforts addressing psychosocial challenges are needed to ensure the goal is continuously met.