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

W P Miranda1,4, D T Rajulu1,4, B J Anderson1,4, B Warren2,4, L C Smith3,4, M Scully4, D O’Connell4, G Birkhead5
New York State Department of Health: 1 Bureau of HIV AIDS Epidemiology; 2 Perinatal HIV Prevention Program; 3 Division of Epidemiology, Evaluation and Research; 4 AIDS Institute; 5 Office of Public Health

Contact: Wilson P. Miranda
Bureau of HIV AIDS Epidemiology, NYSDOH, Albany NY 12237
Email: Wilson.Miranda@health.ny.gov

BACKGROUNDD

• 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.

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 infants;
• Identification of missed opportunities to prevent MTCT.

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.