

Introduction

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The *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD) established the Pediatric Adolescent and Maternal AIDS Branch in 1988 to support and conduct domestic and international research in pediatric human immunodeficiency virus (HIV), with a special focus on the prevention of mother-to-child HIV transmission, maternal HIV disease, and management and treatment of infected infants. In 1988, the HIV perinatal transmission rate in the United States was 25%, and mortality in HIV-infected infants and children was high. After zidovudine became available in 1987, the Branch helped to lead efforts to test its impact on mother-to-child transmission in the Pediatric AIDS Clinical Trials Group (PACTG) 076 trial. In February 1994, the Data and Safety Monitoring Board halted the study because of the 67% decrease in transmission in the zidovudine arm.

Subsequent studies resulted in strategies that led to further decreases in mother-to-child transmission, so that currently the transmission rate in the United States is approximately 1%. The Branch also supported studies to enable incremental decreases in mother-to-child HIV transmission around the world, including through breastfeeding. Globally, these efforts have been so successful that the World Health Organization recently set a goal to virtually eliminate mother-to-child HIV transmission by next year.

In 2012, NICHD endorsed an expansion of the mission of the Branch to include other important maternal and pediatric infections. The Branch was renamed the Maternal and Pediatric Infectious Disease Branch with the goal to support and conduct research into the epidemiology, natural history, pathogenesis, transmission, treatment, and

prevention of HIV and other infectious diseases in pregnant women and children, including perinatally transmitted infections that are the focus of this supplement.

In view of this expanded mission, the Branch, in collaboration with the *Journal*, commissioned a series of state-of-the-art reviews on 7 important infections that can be transmitted from mother to child. To underscore the multidisciplinary nature of perinatal infectious disease work, the reviews were written by authorship teams that included both pediatric infectious disease and obstetric experts. The authors were asked to highlight research gaps for each topic to help the Branch determine priorities for its research agenda.

It has been 20 years since the PACTG 076 trial established that interventions during pregnancy could halt HIV transmission. We hope that the experience the Branch has gained, the research that the Branch has supported, and the collaborations the Branch has initiated in these 20 years can help bring about similar advances in the infections reviewed here and other infectious diseases that afflict mothers and their children.

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