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Prevention of HIV transmission to the fetus

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Date of submission:04/05/2018

Abstract:

Progress towards achievement of global targets for the prevention of mother-to-child transmission of HIV (PMTCT) and paediatric HIV care and treatment is an integral part of global and national HIV and AIDS responses. This report documents the development of the global and national monitoring and reporting systems for PMTCT and paediatric HIV care and treatment programmes, achievements and remaining challenges. A review of the development of the monitoring and reporting process since 2011–2016 was conducted using existing published literature and taking into account changes in WHO HIV treatment guidelines, global HIV goals and targets, programmatic and methodological developments, and increased need for interagency partnerships, coordination and harmonization of global monitoring and reporting mechanisms. The number and type of indicators reported increased and evolved from monitoring of existence of national policies and guidelines, service delivery sites and trained health workers and coverage of PMTCT and paediatric HIV interventions to measuring outcomes and impact in reducing new HIV infections and AIDS related deaths, including efforts to validate elimination of mother-to-child transmission of HIV. These changes were required to mirror changes in WHO and national PMTCT and HIV treatment guidelines. The number of countries reporting PMTCT coverage increased from 53 in 2011 to over 130 in 2015. National monitoring processes have also expanded in scope and the capacity to report on disaggregated data by type of antiretroviral (ARV) regimen and for paediatric HIV care and treatment has increased. Monitoring of PMTCT and paediatric HIV programmes has contributed a rich body of evidence that helped monitor how quickly countries were adopting and implementing the latest WHO HIV treatment guidelines for pregnant and breastfeeding women and children. The reported data and experiences were instrumental in shaping global policies, national programmes, and investment choices.^[1]

Introduction:

Human immunodeficiency virus (HIV) is the virus that causes acquired immunodeficiency syndrome (AIDS), when HIV enters the bloodstream by way of body fluids, the virus invades and kills CD4 cells. CD4 cells are key cells of the immune system. When these cells are destroyed, the body is less able to fight disease. AIDS occurs when the number of CD4 cells decreases below a certain level and the person gets sick with diseases that the immune system would normally fight off.^[2] HIV continues to be a major global public health issue. In 2016, an estimated 36.7 million people were living with HIV (including 1.8 million children) – with a global HIV prevalence of 0.8% among adults. 1 2 Around 30% of these same people do not know that they have the virus. HIV can be transmitted through the body fluid (blood, semen, rectal fluids, vaginal fluids, and breast milk), so it can be transmitted from the mother to the fetus which is called perinatal transmission.^[2] It happens: 1. During pregnancy, HIV can pass through the *placenta* and infect the *fetus*. 2. During labor and delivery, the baby may be exposed to the virus in the mother's blood and other fluids. Once this occurs, the risk of transmitting HIV to the baby increases. Most babies who get HIV from their mothers become infected around the time of delivery. 3. Breastfeeding also can transmit the virus to the baby.^[2]

The prevention of this transmission will be by 1. Receive HIV medicines during pregnancy and delivery. 2. Cesarean delivery. 3. Baby should receive HIV medicines for 4 to 6 weeks after birth and are not breastfeeding.^[3]

Discussion:

The 10th Asia-Pacific United Nations Prevention of Parent-To-Child Transmission (PPTCT) of HIV and Syphilis Task Force meeting was held from 15 to 17 September 2016 in Beijing, China. More than 230 participants from 19 Asia-Pacific countries, including 90 participants from provinces in China, Globally, there was a 45 per cent drop in new HIV infections in children between 2011-2013, nearly double the 24 per cent decline between 2013-2015^[4], before that a data released in 2013 show great progress in prevention of mother to child transmission over the last decade. Between 2005 and 2012, in Sub-Saharan Africa, where the majority of women living with HIV reside and where infant mortality remains high. In line with recommendations of the Joint United Nations Program on HIV/AIDS, Engender Health supports comprehensive prevention of mother-to-child transmission of HIV programs at hospitals in both urban and rural areas in Ethiopia and Tanzania. more than 850,000 new childhood infections were averted in these countries^[5]. while in University of Rio de Janeiro, Brazil, A multidisciplinary team was established to implement the best available strategy to prevent maternal-infant HIV transmission. Patients with AIDS or low CD₄ and high viral load received anti-retroviral drugs, children were infected if they between 1 and 4 months of age. Education regarding infant treatment and use of formula instead of breast feeding was provided. Between 1995 to 2014 they were using anti-retroviral drugs to reduce level of mother to child transmission ,In 2014 ,134/145 (92.6%) of infant was normal who using anti-retroviral drugs.^[6]

Result:

In the case of the parents being affected by HIV, it is possible not to transmit it to the infant by reducing mother to child transmission.

References:

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