Maternal and Neonatal Tetanus

Claiming thousands of lives every year, maternal and neonatal tetanus (MNT) is a devastating disease caused by toxins released from *Clostridium tetani* bacteria. With no cure, MNT is responsible for an average 110,000 deaths a year in the African Region. Once contracted, the newborn usually dies within seven days. However, MNT is entirely preventable through appropriate immunization of women of child bearing age, and through simple and basic precautionary measures in child delivery. Transmission occurs when there is contact between the bacteria and broken skin or dead tissues, such as the wound resulting when an infant’s umbilical cord is cut. Poor hygienic conditions, lack of access to sterilized childbirth delivery tools, unhygienic practices, and limited access to health services amplify the risk for MNT during childbirth.

It is estimated that fewer than 5% of neonatal tetanus cases are actually reported, even from well-developed surveillance systems. It is for this reason that the deaths are greater than the numbers indicate. Of the estimated 28 countries with highest numbers of MNT cases, 16 of them are in the African Region - accounting for 90% global neonatal tetanus cases. These are Angola, Burkina Faso, Cameroon, Chad, Cote d’Ivoire, DR Congo, Ethiopia, Ghana, Guinea Bissau, Liberia, Mali, Mauritania, Mozambique, Niger, Nigeria and Senegal.

The Role of Immunization and Vaccine Development Department

- Establish technical support to strengthen routine immunization of infants with DPT vaccine and immunisation of pregnant women with 2 or more doses of TT vaccine.
- Set standards for disease surveillance.
- Identify high-risk districts for immunization campaigns targeting women of child bearing age.
- Plan and implement TT supplemental immunization activities (SIAs).
- Conduct validation of elimination of MNT.

Challenges

**Reaching populations in need of TT vaccines:** Rural areas, lacking adequate vaccine service delivery are the areas particularly vulnerable to MNT.

**Local access to clean and safe delivery practices:** The application of clean delivery practices, including the use of sterilized tools to sever the umbilical cord during delivery, clean delivery surfaces and clean hands is crucial in preventing MNT.

**Effective immunization:** For effective prevention, pregnant women must be vaccinated with appropriate number of doses of TT vaccine by the time of their delivery.

What WHO/AFRO is doing to combat MNT

- Assist countries to develop an MNT plan of action (PoA), outlining their strategies for eliminating MNT.
- Vaccinate pregnant women with tetanus toxoid vaccine; esp. immunizing pregnant mothers with at least two doses of tetanus toxoid vaccine before delivery.
- Identify high risk districts with low TT2 coverage, low DPT3 coverage and an incidence of neonatal tetanus of more than 1 per 1000 live births and respond with appropriate scale-up of routine immunization activities and mass TT immunization of women of child bearing age.
- Support countries to conduct neonatal tetanus surveillance.
- Promote safe child delivery practices.
Progress

By November 2008, MNT elimination has been validated in 16 countries in the African Region. Eight more countries are in the process of reviewing their district level data to apply to WHO to undertake the validation exercise in early 2009.

Our Goals

- To ensure that DPT immunization of infants takes place and attains high coverage levels (> 90%) in all districts.
- To conduct mass TT immunization of women of child bearing age in all districts considered to be at high risk – i.e., with a high incidence of MNT.
- To promote safe practices in child delivery.

Our Accomplishments

- TT2+ vaccination coverage increased from 45% to 65% from 2000 to 2007. In 2007, 10 countries reported TT2+ coverage of > 80% while 20 more countries attained TT2+ coverage of 60 – 79%.
- 41 countries have had multiple rounds of TT SIAs targeting women of child-bearing age between 2001 and 2007.
- In 2006, 13.8 million women of child-bearing age were reached during rounds of TT vaccination in 12 countries. An additional 18.3 million women of child-bearing age were reached in 12 countries in 2007. In 2008, 68 million women of child-bearing age are targeted for TT supplemental immunization activities in 17 countries.
- 38 countries have set up MNT surveillance in the Region.
- Elimination of MNT has been validated in 16 countries as of end 2008. By the end of 2009, validation of the elimination of MNT is expected to take place in 8 more countries.

Our Partners

WHO works closely with UNICEF in supporting countries to develop and implement national Maternal Neonatal Tetanus Elimination strategies.

Helpful Resources or Websites

- www.who.int/immunization_monitoring/diseases/MNTE_initiative/en/

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