



Achieving and Sustaining Maternal and Neonatal Tetanus Elimination

Strategic Plan 2012–2015



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ACRONYMS AND ABBREVIATIONS

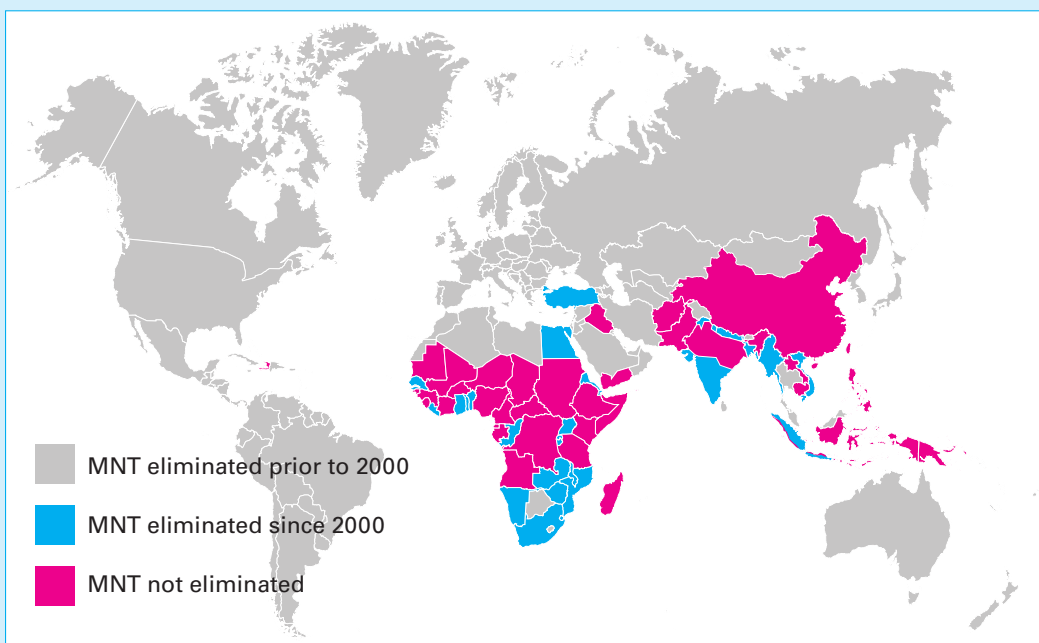
ANC	antenatal care
CHD	Child Health Days
DPT	diphtheria, pertussis and tetanus
EPI	Expanded Programme on Immunization
GIVS	Global Immunization Vision and Strategy
HMIS	Health Management Information System
HQ	headquarters
LQA	lot quality assurance
MCH	maternal and child health
MCV	measles-containing vaccine
MDG	Millennium Development Goal
MNH	maternal and newborn health
MNT	maternal and neonatal tetanus
MNTE	maternal and neonatal tetanus elimination
NT	neonatal tetanus
PAB	protection at birth
PMTCT	prevention of mother-to-child transmission (of HIV)
SIA	supplementary immunization activity
TA	technical assistance
Td	tetanus diphtheria toxoid
TT	tetanus toxoid-containing vaccine
UN	United Nations
UNICEF	United Nations Children's Fund
UNFPA	United Nations Population Fund
UNSG	United Nations Secretary-General
USG	United States Government
WHO	World Health Organization
WRA	women of reproductive age

EXECUTIVE SUMMARY

Maternal and neonatal tetanus (MNT) is a marker of inequity, as the most vulnerable populations are affected by the disease. Despite availability of low-cost vaccines against tetanus, one newborn baby dies due to tetanus every nine minutes. Similarly, several thousand mothers also die due to this easily preventable disease. Globally, MNT accounts for most of the reported tetanus cases, and almost all cases are in developing countries. Due to the nature of the disease, tetanus cannot be eradicated and so the goal is to eliminate MNT as a public health problem as called for by the 42nd World Health Assembly in 1989 and endorsed by the World Summit for Children in 1990 and later reinforced by the re-launch of the maternal and neonatal tetanus elimination (MNTE) initiative by the World Health Organization (WHO), United Nations Children's Fund (UNICEF) and the United Nations Population Fund (UNFPA) in 1999. MNTE is defined as less than one case of neonatal tetanus per 1,000 live births per year in all districts of a country. The main strategies consist of promotion of clean delivery practices, immunization of women of reproductive age with tetanus-containing vaccine and surveillance.

FIGURE 1: 23 COUNTRIES ELIMINATED MNT BETWEEN 2000 & 2011

*(Plus 15 states out of 33 in India, Ethiopia part and 29 provinces out of 33 in Indonesia) leaving 36 countries yet to eliminate MNT



As the world takes stock of achievements towards the Millennium Development Goals (MDGs) by 2015, there has been slow progress in reducing maternal and newborn deaths. However, the current momentum and global focus is expected to have positive impact on maternal and newborn health (MNH), including MNTE. The renewed worldwide commitment to the reduction of maternal and child mortality, if translated into effective action, could help to provide the systemic changes needed for the elimination of the disease and long-term maintenance of the elimination status. Similarly, an equity-based approach and lessons learned through the MNTE programme can be very useful for MNH, especially in underserved areas.

The year 2015 is the global target for reaching MNTE in all countries and is in line with efforts to pursue the realization of the Global Immunization Vision and Strategy (GIVS) 2006–2015 goals as well as the MDGs. Tremendous work has been done in countries identified as high risk for MNT, however, activities need to be intensified in many countries to reach the global target within the stipulated time. Twenty three countries have eliminated MNT out of 59¹ that are at high risk since the re-launch of the MNTE initiative in 1999. More than 100 million women have been reached with at least two doses of tetanus toxoid-containing vaccine (TT) in high-risk areas during past 12 years. This success has been possible with the partnership built throughout the years to move the MNTE agenda forward. The partnership encompasses governments, technical and funding partners including civil societies and private sectors. However, MNTE remains an unfinished agenda and more advocacy, awareness and funds are needed to reach the global target in the countries that have not eliminated MNT and to maintain the status in the countries that have been validated.

The current strategic plan (2012–2015) builds on the proven approaches and lessons learned since the programme was re-launched in 1999. The plan underscores a comprehensive integrated approach for achieving and maintaining MNT elimination and emphasizes a high-risk approach in areas with poor health systems. As more and more countries are approaching elimination, it is critical that efforts are continued to maintain the status and, therefore, the strategic plan 2012–2015 has elaborated on various strategies that can be adopted to maintain MNT elimination. Additionally, the monitoring and evaluation principles have been incorporated.

This document is developed through inputs from WHO, UNICEF and UNFPA, and consultation with experts. The document is developed with the assumption that full financing and implementation of the strategies can lead to the elimination of maternal and neonatal tetanus in the remaining countries by 2015. The MNTE strategic plan 2012–2015 provides an overarching framework and strategies for achieving and maintaining MNT elimination, which can be used by a wide array of audiences – donors, partners, national managers and policymakers. The global strategic plan has been drawn up against a background of growing necessity for increased investment in MNTE, as the elimination goal of 2015 is fast approaching.

GLOBAL CONTEXT

Globally, an estimated 3.3 million neonatal deaths occur each year, accounting for 41 per cent of all deaths of children under the age of 5.² Newborns have the highest risk of death among all children. About 9,000 babies who are within the first 28 days of life – the neonatal or newborn period – die each day. Most of them are born in developing countries and most of them die at home. Infections including tetanus, asphyxia and preterm births cause 80 per cent of these deaths. Despite steady decline in the under-5 mortality rate in the past decade, there has not been much significant change in neonatal mortality. Most of these deaths are closely related to maternal health, mortality and morbidity. Between 1990 and 2008, there was a 34 per cent decline in the maternal mortality rate, although an estimated 358,000 maternal deaths still occurred worldwide in 2008.³ The direct causes of maternal deaths include haemorrhage, sepsis, obstructed labour, hypertensive disorders and abortion. Most maternal and newborn deaths are avoidable. Throughout the past decade, there has been a growing body of evidence on essential interventions that can significantly reduce such deaths in resource-limited settings.

The slow progress in the reduction of maternal and neonatal mortality has recently generated increased interest of the international community. Global partners and stakeholders are responding strongly to the unsatisfactory progress towards MDG5 and, to a lesser extent, MDG4. In 2010, in order to accelerate progress towards MDGs 4 and 5, the United Nations Secretary-General (UNSG), through Global Strategy for Women and Children's Health, called upon national governments, international and non-governmental organizations, corporations, foundations, constituencies and advocates to reinforce their commitment and collective efforts to accelerate progress towards maternal, child and newborn health. This follows other major recent commitments made by governments and donors, namely, the United States Government (USG) and its Global Health Initiative, as well as the European Union, Japan and Canada. In addition, UN agencies, through the H4+ platform, have aimed at harmonizing approaches towards improving maternal and newborn health (MNH) in countries through a joint statement.

In the past two decades, the MNTE programme, through comprehensive and targeted approaches, has significantly contributed to the reduction of maternal and particularly neonatal mortality. The lessons learned through the MNTE programme can be applied to broader maternal and newborn health programmes, especially in underserved areas. The current momentum towards maternal and newborn health will further accelerate reaching and maintaining MNTE goals, especially through strengthening service delivery platforms and integrated high-impact interventions and linked services.

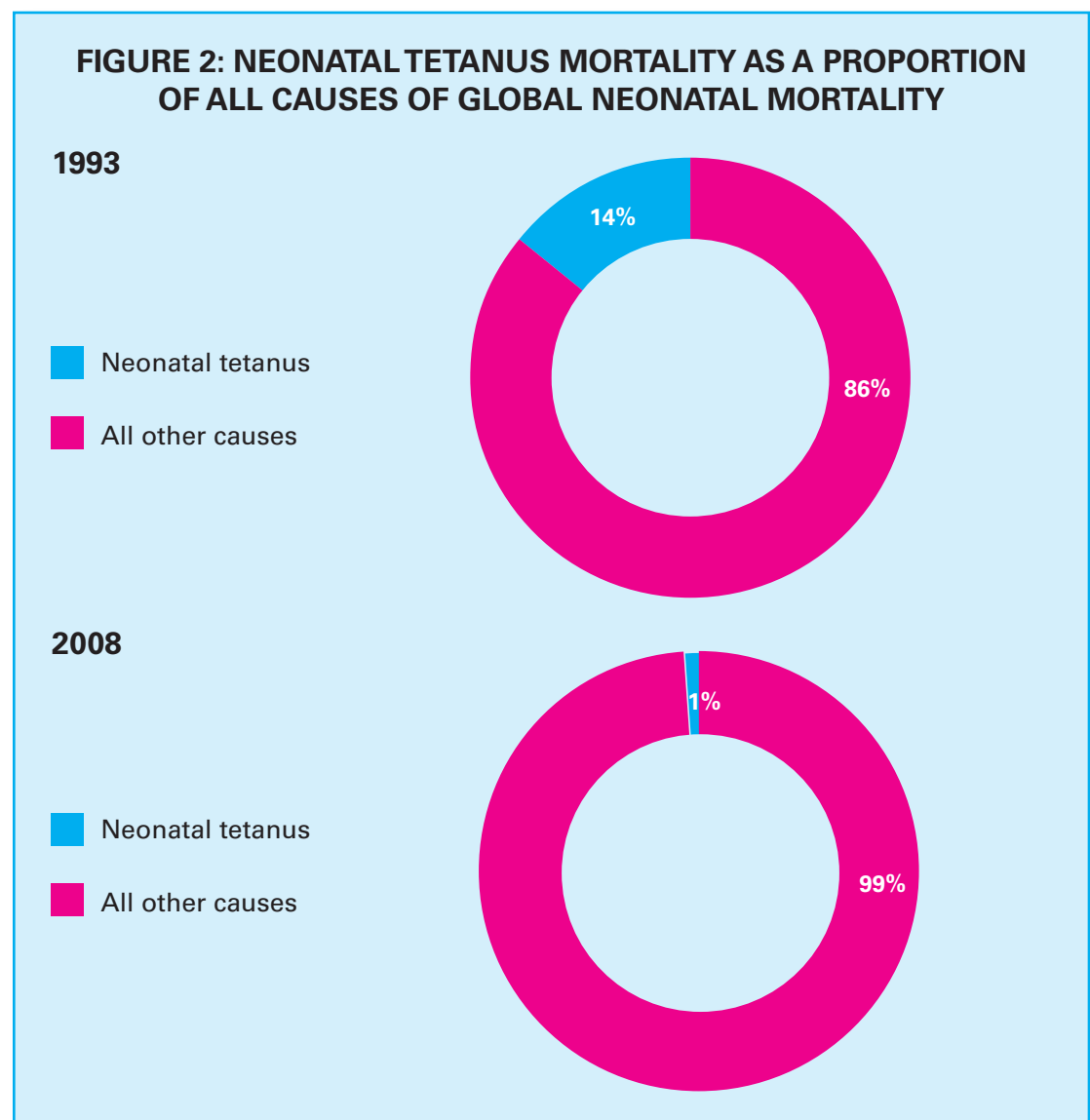
2 Child Health Epidemiology Reference Group of WHO and UNICEF, 'Global, Regional, and National Causes of Child Mortality in 2008: A systematic analysis', *The Lancet*, vol. 375, no. 9730, 5 June 2010, pp. 1969–1987.

3 'Trends in Maternal Mortality: 1990–2008'. Estimates developed by WHO, UNICEF, UNFPA and the World Bank.

THE PROBLEM

In 2008, there were an estimated **59,000⁴ deaths due to neonatal tetanus**, almost all in the 36 countries where MNT is yet to be eliminated.⁵

These newborns and the **several thousand women who die of tetanus⁶** belong to the poorest and most marginalized populations living in underserved and hard-to-reach areas. Although globally, neonatal tetanus is responsible for about 1 per cent of neonatal deaths, as shown in Figure 2,⁷ in some districts, neonatal tetanus still causes a substantial proportion of neonatal deaths.



4 Black RE, Cousens S, Johnson HL, et al. Global, regional, and national causes of child mortality in 2008: a systematic analysis. *Lancet*. 2010; 375:1969-87

5 As of December 2011, there are 36 countries that have not yet eliminated MNT.

6 Maternal tetanus is tetanus occurring during or six weeks following pregnancy.

7 *The Lancet*, vol. 375, no. 9730, June 2010, pp. 1969-1987.

CURRENT SITUATION

Tetanus is a non-communicable, toxin-mediated disease caused by *Clostridium tetani* bacteria, which are normal constituents of soil and animal excreta. When wounds are contaminated by these bacteria or their spores, infection can ensue with the production of a potent neurotoxin that causes the painful symptoms of the disease. Although anyone can get tetanus at any age, in developing countries, women and their newborns are at especially high risk of contracting tetanus during and soon after the birthing process.

THE DEFINITION

Maternal and neonatal tetanus elimination is defined as less than 1 case of neonatal tetanus for every 1,000 live births in all districts or equivalent administrative units of a country per year.

According to WHO's burden of disease estimates for 2004, MNT was responsible for almost 80 per cent of all tetanus cases. The risk for tetanus in women and neonates is high because in many areas in developing countries women are not protected through tetanus immunization, health services providing clean and safe child birth are limited or not available, and unhygienic cord care practices still persist. Exacerbated by poverty, minimal hygiene, geographical constraints, low literacy and, at times, culturally challenging environments; MNT is a marker of inequity in health service delivery, as it can effectively be controlled using the 'high-risk' approach to reach the most deprived population groups with a package of immunization and MCH services, thus contributing to reaching the MDGs.



A 14-day-old baby suffering from neonatal tetanus before dying from severe spasms in a rural hospital in Cambodia. The mother was not fully immunized against tetanus and delivered at home without a skilled birth attendant.

PROGRESS SINCE RE-LAUNCH OF GLOBAL MNTI INITIATIVE - 1999 (AS OF DECEMBER 2011)

- Neonatal tetanus (NT) deaths, as a proportion of all neonatal deaths, have been reduced from 7 per cent in 2000 to around 1% in 2008.
- Estimated annual NT deaths have been reduced from around 200,000 in 2000^a to 59,000 in 2008.
- Number of countries that have not eliminated MNT has decreased from 59 in 2000 to 36 in 2011.
- More than 100 million women in some 50 countries have been protected against tetanus with two or more doses of the tetanus-containing vaccines through campaigns. Many more women have been protected against the disease with routine TT/Td vaccines through regular immunization and antenatal care services.

a WHO, UNICEF, World Bank, 2002, State of the World's Vaccines and Immunization, 2002

In addition, many countries that have achieved MNTI in the past few years through implementation of large-scale TT supplementary immunization activities (SIAs) must now maintain the elimination status through implementation and/or strengthening of interventions needed to sustain the high protection levels against tetanus in these populations.

THE GOAL

The goal is to provide the required support to the 36 remaining countries at high risk for MNT, enabling them to reduce the risk status of each of their districts (or equivalent administrative units) for neonatal tetanus (NT) to an incidence rate of less than 1 case for every 1,000 live births. As maternal and neonatal tetanus are closely linked, the neonatal tetanus (NT) rate is a proxy for maternal tetanus rate.

As MNT is not an eradicable disease, the first milestone is to achieve MNT elimination in all countries, while the second is to maintain elimination status in all districts of countries that have achieved validation status.



Nang Chanh, 29 years old, receiving a Tetanus Toxoid (TT) vaccination.

THE STRATEGIES

The strategies to reach MNTE, defined as less than 1 NT case for every 1,000 live births in ALL districts in a country, are similar to the those required to maintain elimination. Once elimination is attained, strategies to maintain MNTE must be put in place, as curative care for tetanus is difficult, expensive and, in developing countries, often inadequate to avert death. Most of the time, in areas where the disease is often seen, availability of the required level of treatment is lowest.

Prevention of MNT, therefore, is the most cost-effective and feasible solution.

Achieving elimination status

Depending on the capacity of the health system and availability of regular health services for mother and child, one or more of the following strategies can be used to achieve MNTE in a country:

STRATEGIES FOR ACHIEVING MNTE

1. Delivery by skilled birth attendants to ensure clean delivery practices.
2. Immunization of women during pregnancy (at fixed sites or through outreach) with TT or Td vaccine.
3. Immunization of women of reproductive age with TT or Td vaccine, through SIAs in high-risk areas.
4. Surveillance for NT.

1. Delivery by skilled birth attendants to ensure clean delivery practices: Safe birth is a basic right of mothers and newborns. Clean birthing practices and umbilical cord care can substantially reduce maternal and neonatal mortality and morbidity from infectious causes, including tetanus. Changes in both traditional practices, training of high-quality skilled birth attendants and development of functional obstetric facilities are required. MNT can be prevented by **ensuring that all deliveries are assisted by skilled health attendants** – whether at **health facilities or during home delivery** – who can ensure clean delivery practices. It is also important to **discourage use of harmful cord care practices** through information and education of communities.

2. Immunization of women during pregnancy (at fixed sites or through outreach) with TT or tetanus diphtheria toxoid (Td) vaccines: Tetanus vaccination actually begins in infancy, when children receive at least three doses of diphtheria, pertussis and tetanus (DPT) vaccine. However, the duration of protection from infant immunization wanes and booster doses in school-age children required to maintain protection are not available in most developing countries, especially in areas most

affected by NT. Therefore, **immunizing women during pregnancy**, and following review of their vaccination history and current protection, is recommended to provide protection against tetanus. This can be done **during antenatal care (ANC) visits or immunization sessions at fixed sites or during outreach**.

3. Immunization of women of reproductive age with TT or Td vaccine, through SIAs:

MNT is a disease of underserved populations and special groups such as nomads and displaced persons. In such areas, major infrastructural changes, which are not easy to implement, are needed to provide preventive and curative services for NT. Therefore, such areas and populations require special strategies to overcome system barriers. These areas are identified through data reviews that look at a range of indicators, including immunization coverage, surveillance data, maternal health indicators, health systems indicators, etc. Once the high-risk districts are identified, the supplemental immunization is implemented through

- i. **Stand-alone TT/Td-SIAs** (single intervention campaigns)
- ii. **Integration of TT/Td-SIAs with other interventions** such as measles or polio vaccination, vitamin A supplementation, mosquito net distribution, commodities distribution, etc.
- iii. **Child Health Days (CHDs)** or similar periodic multi-intervention campaigns

4. Surveillance for NT: to identify where cases still occur and why, helping direct programmatic efforts and monitor MNTE status.

WHO and UNICEF recommended 'High-Risk' approaches are summarized in the box below.

HIGH-RISK AREA APPROACH TO MNTE

1. Identification of high-risk districts/areas in a country, based on a thorough data review.
2. Implementation of three rounds of TT-SIAs in all of the high-risk districts to immunize all women of reproductive age, irrespective of their previous vaccination status.
3. Minimum of four weeks interval between the first and second rounds and a minimum of six months between the second and third rounds.
4. Support local initiatives to promote clean delivery and clean cord care practices.

WHO, UNICEF and UNFPA recommend implementation of routine activities as an integrated package of Maternal and Newborn Health services as part of continuum of care, including antenatal care with all its components and skilled birth attendance at delivery and post-natal care. Health education for clean birth and cord care practices

and immunization is an essential part of the package to benefit both pregnant women and newborns. In high-risk areas, it is recommended that TT/Td campaigns be linked to other planned activities such as Maternal and Child Health Days, other immunization campaigns, etc.

Maintaining elimination status

Maintaining MNTE status is relatively easier in countries with established and functional health systems; where TT/Td immunization is mainly delivered through fixed and outreach sites when required; where most women have access to skilled birth attendance and utilize the opportunity; where the health-care seeking behaviour is geared towards health facilities. Maintenance of elimination poses a challenge for countries that have conducted proportionately huge campaigns to attain elimination, except where there is a collateral improvement in the health systems performance in the country. The key to maintaining MNTE status is to maintain protection through combination of hygienic deliveries and TT/Td immunization. In countries where health systems are sufficiently established, the MNTE could be achieved through existing services, and maintaining elimination and even further reducing incidence is easy, as long as the delivery of existing services continues or further improves.

STRATEGIES TO MAINTAIN MNT ELIMINATION

In countries with sufficiently established health systems:

1. Delivery by skilled birth attendants to ensure clean delivery practices and cord care.
2. A primary series of three doses of DTP in infancy through routine immunization at health centres or outreach sessions, PLUS
3. Booster doses of TT-containing vaccine in childhood and adolescence (one booster dose each in early school-age, adolescence and early adulthood), PLUS
4. One (or more) booster dose given in adulthood during ANC or outreach immunization session, depending on the national infant and booster doses schedule.

In countries with weak health systems that required SIAs to achieve MNT elimination:

1. Continued use of CHDs, particularly in formerly high-risk areas to target pregnant women with TT/Td doses, as per national immunization schedule.
2. Institutionalized outreach sessions at regular intervals in all areas that are not served by health facilities.
3. Periodic SIAs: in some areas in the countries that do not conduct regular CHDs and where outreach immunization sessions are not successful in reaching children and women regularly.
4. Surveillance for NT.



A female health worker immunizes a pregnant woman against TT (Tetanus Toxoid) in Uttar Pradesh, India.

1. Delivery by skilled birth attendants to ensure clean delivery practices: MNTE can be maintained by **ensuring that all deliveries are assisted by skilled health attendants**, whether at **health facilities or during home delivery**, who can ensure clean delivery practices during home deliveries. This will require training of high-quality skilled birth attendants and development of functional obstetric facilities. It is also important to **discourage use of harmful cord care practices** through information and education of communities.

2. Maintain high DTP3 coverage in infancy: While the primary series of **three doses of DTP in infancy** does not provide protection into adulthood, it does establish immunologic memory which will produce protective anti-tetanus antibody levels when booster doses are given later in life.

3. Booster tetanus containing vaccine doses in childhood and adolescence: WHO recommends following three infant DTP doses with booster doses of TT-containing vaccine **at 4-7 years of age and in adolescence**. **When adults who have received two boosters are provided with a subsequent TT/Td booster** in early adulthood, their **immunologic protection will last throughout the reproductive age or longer**, preventing MNT. Fewer countries have implemented booster dose strategies in older age groups. In countries with high school-attendance rates, adopting a **school-based approach** may serve the purpose. In areas with low school-attendance rates, strategies to reach out-of-school children will be needed.

4. Booster dose in adulthood: Booster dose(s) for **adult women** can be given in pregnancy during ANC visits or outreach immunization sessions. Countries have adopted innovative approaches for booster doses, such as 'bride-to-be doses'. Men can be targeted during military service.

In countries requiring SIAs to achieve MNTE, unless the infrastructure improves drastically, the disease may again increase to above the elimination levels in the high-risk districts and populations. Therefore, special strategies need to be adopted, especially in the former high-risk areas, and the strategies may need to be implemented periodically until the health system is strengthened. Special strategies could include;

1. TT/Td vaccination through CHDs (or Mother and Child Health Days): These periodic campaigns, which mainly target children with a package of interventions, can also be used to target pregnant women with TT/Td vaccination, as per the national immunization schedule. The challenge is to ensure a focus on districts with pockets of underserved populations and proper monitoring of achievements.

2. Outreach immunization sessions: The sessions must be institutionalized and take place at regular intervals in all areas that are not served by health facilities. As most of these sessions are led and conducted for child immunization activities, coordination between the Expanded Programme on Immunization (EPI) and MCH Programme is critical to ensure inclusion of TT/Td vaccination as part of ANC services in the outreach sessions. The challenge will be to ensure regularity of outreach in the hard-to-reach populations and ensuring that pregnant women attend the outreach session, especially in areas where ANC is not available;

3. Periodic small-scale SIAs: In some areas in countries that do not conduct regular CHDs and where outreach immunization sessions are not successful in reaching children and women regularly, **periodic small-scale TT-SIAs** may be needed to maintain TT protection at elimination levels.

A newly developed meningococcal A conjugate vaccine uses TT vaccine as its carrier protein. The TT is adequate to serve as a booster dose. As most African 'meningitis belt' countries and other countries with hyper-endemic meningitis have not yet eliminated MNT, introduction of this **TT-containing meningococcal A conjugate vaccine** will provide an opportunity to prolong protection against tetanus. The vaccine will be administered to everyone ages 1 to 29 through a one-time campaign, followed by routine administration in infancy or early childhood to protect successive birth cohorts. Both strategies will augment and extend protection against tetanus in recipients.

4. Surveillance for NT is essential for evaluating programme progress and fine-tuning elimination strategies by identifying areas where NT cases still occur and under what circumstances. Once MNT elimination has been achieved, high-quality NT surveillance is required to monitor ongoing elimination status, and to focus attention on areas that may require supplemental activities to maintain elimination.

All countries need a **review of district-level MNT indicators** every two years to assess if low-risk status for MNT is being maintained.

If all of the above strategies could be implemented as appropriate, the lives of thousands of mothers and newborns could be saved, bringing us a step closer to achieving the MDGs 4⁸ and 5⁹, and towards addressing inequity in access to health services in the world's remotest, poorest and most difficult to reach populations.

8 Reduce by two thirds, between 1990 and 2015, the child mortality ratio.

9 Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio.

MONITORING

As with other vaccine preventable diseases, **monitoring of vaccination coverage** is an essential component of the MNTE programme. The indicators used by WHO for monitoring routine immunization services for women of reproductive age are **TT2+** – the proportion of pregnant women who received their second or subsequent dose of TT/Td during pregnancy, and **protection at birth (PAB)** – the proportion of infants protected at birth by maternal TT/Td immunization measured at their DPT1 encounter. Doses received in TT/Td SIAs are reported separately, as the TT/Td history of women is usually not checked in TT SIAs.

In countries where a high proportion of women are already protected against tetanus, annual reported TT2+ coverage underestimates true protection among women of reproductive age because some pregnant women who have completed the 5-dose schedule will no longer require TT/Td doses. In such situations, PAB is the preferred monitoring indicator because it captures all doses of TT/Td vaccine a mother had received prior to the birth of her child, not just those received during her last pregnancy.

As programmes add booster doses of tetanus-containing vaccine to their schedules, monitoring systems that capture all doses need to be developed. While administration and recording of booster doses can be based on history-taking, childhood doses are easily forgotten. Thus durable life-long immunization cards/ records need to be developed, and possibly integrated together with other official documents to promote their retention. In addition to monitoring TT/Td immunization coverage, it is important to monitor ANC coverage provided to pregnant women, measuring coverage with both one and four visits during each pregnancy. It is also essential to monitor the institutional delivery and presence of a skilled birth attendant at the time of delivery. As these data are typically collected by the MCH teams in the Ministries of Health, it is **critical** for the EPI team to regularly coordinate with MCH program. In addition, the Health Management Information System (HMIS) at all levels should include all essential data (TT2+ coverage in pregnant women, TT2+ coverage in women of childbearing age, PAB against tetanus, DTP1, DTP2, DTP3, school immunization coverage of tetanus-containing vaccine where applicable, ANC coverage for one and four visits, skilled attendance coverage, institutional deliveries, NT cases, etc.).

VALIDATION

Following completion of all planned activities (including TT/Td-SIAs/campaigns) as identified in the high-risk approach, district MNT risk assessment is done in the country to identify any remaining districts in need of SIAs. Data used in the review includes; reported NT cases and incidence rates; reported routine DPT, TT/Td and measles-containing vaccine (MCV) coverage; TT/Td coverage during SIAs; MCH indicators such as ANC attendance, deliveries in health facilities and deliveries assisted by medically trained birth attendants; coverage survey results; and pertinent health systems and socio-economic indicators when available.

If the data review shows that no additional TT/Td-SIAs are needed, then a field assessment of the poorest-performing (most at risk) districts is undertaken to ensure that there is no need for any further activities.

Once a country concludes that it has met the definition of MNTE, a request is made to WHO headquarters (HQ) to conduct a formal assessment, and usually a community-based neonatal mortality survey is performed in the district at highest risk for MNT to validate the elimination status.

If the survey shows that the highest-risk district has met the definition of MNTE of less than 1 NT case per 1,000 live births, it is assumed that all districts at lower risk also have achieved elimination, as has the country as a whole.

Annex 1 shows a tentative schedule of MNT validation.¹⁰

10 The schedule is contingent on funding availability and country preparedness.

MILESTONES

These milestones are towards the attainment of the global goal of MNTE by 2015.¹¹ Approximately 100 million women of reproductive age live in areas still at risk for MNT and require TT-SIAs to be protected against tetanus. Given country commitment, past experiences with TT-SIAs and momentum of activities in most countries, programmatically global MNTE is possible by 2015 with the following milestones

2012:

- 76 million women of reproductive age in 20 countries to be immunized through TT-SIAs.
- 11 countries to complete all needed TT-SIAs
- 17 countries to be validated as having eliminated MNT.

2013:

- 44 million women of reproductive age in 5 countries to be immunized through TT-SIAs.
- 5 countries to complete all needed TT-SIAs
- 13 countries to be validated as having eliminated MNT.

2014:

- 5 million women of reproductive age in 4 countries to be immunized through TT-SIAs.
- 4 countries to complete all needed TT-SIAs
- 3 countries to be validated as having eliminated MNT.

2015:

- 3 countries to be validated as having eliminated MNT.

¹¹ This information is valid as of January 2012 and will be updated every 6 months. The current figures assume timely availability of funds as needed by countries, the failure of which will result in postponement of activities. Other assumptions include no postponements due to competing priorities (like Polio or other disease outbreaks, no inaccessibility issues due to wars and/ or active combat etc.)

BUDGET

Achieving MNT elimination mainly through TT-SIAs targeting more than 100 million women who live in areas still at risk for MNT will cost an estimated USD 227 million. A funding gap of approximately USD 102 million has to be met between 2012 and 2015 in order to achieve global elimination which is programmatically feasible by 2015. Sustaining MNTE is part of the existing immunization budget that may be augmented by the cost to introduce and deliver booster doses and inclusion of maternal health budgets. The following table shows financial requirements from 2012 to 2015 that includes the country, regional and headquarter needs, funding needs for TT campaigns, technical support, monitoring and evaluations.

MNTE FUNDING NEEDS 2012-15 IN US\$¹² (AS OF JANUARY 2012)

	2012		2013		2014		2015		2012 - 2015	
	Total needs	Unmet needs	Total needs	Unmet needs	Total needs	Unmet needs	Total needs	Unmet needs	Total needs	Unmet needs
Operational Costs	113.0	113.0	73.7	73.7	1.0	1.0	-	-	187.8	187.8
Supply Costs	23.2	23.2	4.1	4.1	0.4	0.4	-	-	27.7	27.7
Technical Assistance (TA)	1.8	1.8	1.8	1.8	1.6	1.6	1.0	1.0	6.2	6.2
LQA Costs	2.0	2.0	1.5	1.5	1.0	1.0	0.5	0.5	5.0	5.0
TOTAL (including India)	140.0	140.0	81.1	81.1	4.0	4.0	1.5	1.5	226.6	226.6
India's needs	62.4	62.4	62.4	62.4	0.0	0.0	-	-	124.8	124.8
SUB-TOTAL (excluding India)	77.6	77.6	18.7	18.7	4.0	4.0	1.5	1.5	101.8	101.8

Note: Operational costs and Supply costs are primarily the estimated country needs, while cost of TA and LQA are required at the regional and global levels

12 This table highlights all programme needs, including the country, regional and HQ needs, funding needs for TT campaigns, technical support, monitoring and evaluation.

CHALLENGES

Achieving and sustaining MNTE has its peculiar challenges. Since MNT is considered a 'silent killer', it is often not given priority by the international community. Despite availability of tools and a clear strategy, the elimination goal is not achieved due to the following reasons:

- The biggest challenge to achieving global MNTE is **availability of funds** for continuation of activities in a timely manner. The programme is facing acute funding constraints, which will result in loss of valuable momentum in many countries. The funding gap must be filled as soon as possible to implement the elimination strategies.
- Additional funds will be needed to **strengthen immunization programmes** and to **build sufficient infrastructure** to ensure all women can deliver in hygienic conditions and practice proper umbilical care.
- **Government and partner commitment** to achieve MNTE are essential, as such commitment drives the planning of the activities and the motivation of the health workers and communities concerned.
- A special challenge is the countries with **civil unrest or active combat and wars**, where it is more difficult to reach the populations that are most at risk for MNT.

Sustaining MNTE is feasible in the presence of good health-care infrastructure. The challenge is to ensure that the strategies outlined above are funded and implemented. It is critical that immunization with TT/Td and other antigens are part of an essential package of life-saving interventions delivered to those who need it most but who politically matter least.

PARTNER SUPPORT

Partnership has been key to the achievements of the MNTE initiative to date in supporting efforts of countries that are among the poorest in the world. But the job is not yet done. Strong and sustained partner commitment will be crucial in ensuring success in the coming years to achieve and maintain MNTE, while increasing coverage with other life-saving interventions in the underserved areas. The following funding partners have supported the elimination efforts since 1999: Bill and Melinda Gates Foundation (funding), Becton and Dickinson (funding, in-kind support, advocacy), Procter and Gamble Pampers Division (funding, advocacy), GAVI-International Finance Facility for Immunization funding-IFFIm (funding), Government of Japan (funding), and Ronald McDonald House Charities (funding). Most recently, Kiwanis International has joined the initiative through “The Eliminate Project”.

The renewed worldwide commitment to the reduction of maternal, newborn and child mortality provides another opportunity for expanding this partnership as envisioned by the Global Strategy for Women’s and Children’s health and increasing links with initiatives undertaken through H4+¹³. The main thrust for the linkages is to ensure delivery of maternal and newborn health interventions through a common platform to maximize impact on maternal and child mortality. This will also provide systemic changes needed for the long-term maintenance of MNTE.

13 WHO, UNICEF, UNFPA, World Bank and UNAIDS formed an alliance called H4+ to harmonize the maternal and child programme at country level.

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**United Nations Children Fund
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