

Standards for Maternal and Neonatal Care

Dr. Karim Abawi karim.abawi@gfmer.org

From Research to Practice: Training in Sexual and Reproductive Health Research 2017



What are the Standards for Maternal and Neonatal Care?

- Standards for Maternal and Neonatal care is WHO key recommendations for maternal and neonatal care, that is provided from the first level to higher levels of health facilities.
- Standards for Maternal and Neonatal Care is part of WHO Integrated Management of Pregnancy and Childbirth Care (IMPAC).
- It provides guidance to improve health of women and newborn during pregnancy, childbirth and postnatal period.



What is the purpose of the Standards for Maternal and Neonatal Care?

The purpose of the Standards for Maternal and Neonatal Care is to assist programme managers and health care providers to:

- Develop evidence-based national and sub-national standards for maternal and neonatal health care.
- Introduce standards setting and a quality improvement process at facility level.
- Provide quality and effective maternal and neonatal health services.
- Use existing resources to achieve the optimal health care outcomes; and improve individuals', families' and community's satisfaction and utilization of maternal and neonatal health services.



Standards for Maternal and Neonatal Care

Components



1. Maternal Immunisation Against Tetanus

Burden

- At the end of 2013, tetanus vaccine was introduced in 106 countries.
- An estimated 83% of newborns were vaccinated against tetanus.
- Despite significant progress and achievement, maternal and neonatal tetanus reamins as public health problems in 19 countries, mainly in Africa and Asia.
- WHO estimates that in 2008 (the latest year for which estimates are available), 50,000 newborns died from neonatal tetanus.
- If the mother is not immunized with the correct number of doses of tetanus toxoid vaccine, neither she nor her newborn infant is protected against tetanus at delivery.



1. Maternal Immunisation Against Tetanus

The standard

• All women giving birth and their newborn babies should be protected against tetanus.

Aim

- To prevent maternal and neonatal tetanus (MNT).
- Giving vaccine to pregnant women protects them from tetanus and protects their infants against Neonatal tetanus (NT).



1. Maternal Immunisation Against Tetanus

Requirements

- National strategy to ensure high tetanus vaccination coverage among women.
- Strategies to implement "high-risk approach" in areas with high risk of maternal and neonatal tetanus, which includes vaccination of women of reproductive age.
- Vaccination of all pregnant women, who attend antenatal clinic or are visited by health staff in the community.
- Availability of vaccine, equipment and supplies required to conduct tetanus immunization in the health facilities, particularly ANC services.
- Effective monitoring system.
- Health education, community awareness activities and a national surveillance system for tetanus.



2. Prevention and management of sexually transmitted and reproductive tract infections Burden of STIs:

- Worldwide 340 million new cases of curable STIs occur annually. A large proportion of them among women in the reproductive age.
- Most infection before conception and during pregnancy go ignored by many women, because the symptoms are mild or access to health care and drugs is limited.

Effective STI management:

- Prevents the development of complications and sequelae.
- Reduces the spread of these diseases in the community.
- Offers opportunity for education on HIV prevention.

World Health Organization, Reproductive Health and Research. Sexually Transmitted and Other Reproductive Tract Infections: A Guide to Essential Practice. Geneva: Dept. of Reproductive Health and Research, World Health Organization; 2005.



2. Prevention and management of sexually transmitted and reproductive tract infections

The standard

- All women should be assessed for sexually transmitted infections and reproductive tract infections during pregnancy, childbirth and postnatal period and should receive effective treatment for themselves and in the case of STIs for their partners.
- They should also be given appropriate information on the prevention and recognition of sexually transmitted infections as well as reproductive tract infections.

Aim

 To reduce maternal and perinatal morbidity and mortality and infertility caused by STIs/RTIs.



2. Prevention and management of sexually transmitted and reproductive tract infections

Requirements

- A national policy and locally adapted guidelines on the prevention and management of STIs/RTIs.
- Trained health care providers to inform women on the prevention of STIs/RTIs, diagnose and treatment of these infections.
- Essential equipment, supplies and drugs for the diagnosis and management of, and counselling on, STIs at all levels of care.
- STI health care services accessible and affordable to pregnant women and their partners.
- Health education activities to increase community awareness on the prevention and management of STIs/RTIs.



3. Prevention of mother-to-child transmission of syphilis

Burden

- In 2012, more than 900 000 pregnant women were infected with syphilis that resulted in 350 000 adverse birth outcomes (WHO 2017)
- Approximately half of infected pregnant women who are untreated, will experience adverse outcomes due to syphilis (WHO 2012)
- Mother-to-child transmission (MTCT) of syphilis (commonly referred to as "congenital syphilis") is relatively simple to eliminate but despite treatments that have been available for over 60 years, MTCT of syphilis persists as a public health problem (WHO 2012).

World Health Organization. Sexually transmitted infections (STIs): Fact sheet N110. WHO; Updated August 2016. World Health Organization. Investment case for eliminating mother-to-child transmission of syphilis. World Health Organization; 2012.



3. Prevention of mother-to-child transmission of syphilis

The standard

- All pregnant women should be screened for syphilis at the first antenatal visit within the first trimester and again in late pregnancy.
- At delivery, women who for some reason do not have test results should be tested/retested.
- Women testing positive should be treated and informed of the importance of being tested for HIV infection. Their partners should also be treated and plans should be made to treat their infants at birth.

Aim

• To reduce maternal morbidity, fetal loss and neonatal mortality and morbidity due to syphilis.



3. Prevention of mother-to-child transmission of syphilis

Requirement

- A national policy and locally adapted guidelines on syphilis prevention, management and care in pregnant women.
- Access to care during pregnancy, childbirth and the postpartum period.
- Trained health care providers in prevention, screening during pregnancy and management of syphilis in pregnant women, their partners and newborn.
- One on-site screening method in antenatal care (ANC) clinics and maternity wards.
- Health education activities to raise the awareness of individuals, families and communities of the importance of attending ANC clinics early in pregnancy for syphilis prevention and treatment.



4. Prevention of congenital rubella syndrome (CRS)

Burden

- Rubella is a contagious viral infections that occurs most often in children and young adults.
- In pregnant women it may cause fetal death or congenital defects known as congenital rubella syndrome (CRS).
- Globally an estimated 110 000 babies are born with CRS every year.
- There is no specific treatment for rubella.
- Vaccination is the best mean to prevent the disease.
- Rubella vaccine was introduced at national level in 147 countries by the end of 2015 with an estimated global coverage of 46%.



4. Prevention of congenital rubella syndrome (CRS)

Standard

- In countries where rubella vaccine is included in the national immunization programme, women should be immunized against rubella before they become pregnant.
- In all countries, pregnant women with suspected rubella or exposure to rubella should be followed up and reported.
- In all countries, infants with suspected congenital rubella syndrome (CRS) should be assessed and reported.

Aim

• To prevent congenital rubella syndrome (CRS).



4. Prevention of congenital rubella syndrome (CRS)

Requirements

- Policy to provide vaccine for women of childbearing age according to locally adapted immunisation program.
- The vaccine, equipment and supplies needed to conduct rubella immunization in the health facilities.
- Trained Health personnel to determine when and how to vaccinate against rubella.
- A system to monitor rubella vaccine coverage in women of childbearing age.
- Surveillance system for rubella in all age groups.
- Investigation of rubella cases in pregnancy and rubella exposure during pregnancy.
- Health education activities to increase community awareness on the importance of preventing rubella and congenital rubella.



5. Malaria prevention and treatment

Burden

- According to the latest WHO estimates, there were 212 million cases of malaria in 2015 with a total of 429 000 deaths (WHO 2014).
- Malaria primarily affects low and lower income countries and within endemic countries, the poorest and most marginalized communities. Most of malaria cases and deaths occur in Sub-Saharan Africa, but Asia, Latin America and to lesser extent the Middle East and part of Europe (WHO 2014).
- The incidence and prevalence of malaria is disproportionately high in sub-Sahran Africa. In 2015, the region accounted for 90% of malaria cases and 92% of death due to malaria (WHO 2017).
- In some 13 of this region accounts for 76% of malaria cases and 75% of deaths globally.
- Approximately 25 million pregnant women are at risk of infection by P. falciparum annually in Africa (WHO 2014)

World Health Organization. World Malaria Report 2014. World Health Organization; 2014. World Health Organization. Malaria. Fact sheet N° 94. WHO. Upadated April 2017



5. Malaria prevention and treatment

Standard

- In malarious areas, all pregnant women should sleep under an Insecticide Treated bednet (ITN).
- In areas of stable transmission of falciparum malaria, all pregnant women should be given Intermittent Preventive Treatment (IPT).
- Pregnant women suspected of having malaria should be assessed and treated according to national protocols.
- In the postnatal period, both the mother and the baby should sleep under an Insecticide Treated Bednet.

Aim

• To reduce the incidence of negative outcomes in women and their babies due to malaria during pregnancy.



5. Malaria prevention and treatment

Requirements

- National policy and guidelines on prevention, diagnosis and treatment of malaria in pregnancy.
- Trained health providers on malaria-related risks during pregnancy, administration of IPT, advising on the use of ITNs, and diagnosis and treatment of malaria during pregnancy, delivery and the postpartum period.
- Access to maternity care particularly in the antenatal period.
- Availability and affordability of antimalarials for IPT and treatment of symptomatic malaria and ITNs.
- Health education activities to increase community awareness of malaria prevention and treatment.



6. Iron and folate supplementation

- Pregnant and postpartum women and children aged 6–24 months are usually the most affected groups.
- It is highly prevalent in less developed countries, where, in addition to poor nutrition, parasitic and bacterial infections can contribute to depletion of iron reserves.
- Anaemia in pregnancy is defined as haemoglobin <11g/dl or haematocrit <33%.
- It aggravates the effects of maternal blood loss and infections at childbirth, and is associated with increased maternal and perinatal mortality and morbidity.
- Where anaemia is prevalent, iron deficiency is usually the most common cause.

World Health Organization. Counselling for maternal and newborn health care: World Health Organization; 2013.



6. Iron and folate supplementation

Standard

- All pregnant women in areas of high prevalence of malnutrition should routinely receive iron and folate supplements, together with appropriate dietary advice, to prevent anaemia.
- Where the prevalence of anaemia in pregnant women is high (40% or more), supplementation should continue for three months in the postpartum period.

Aim

 To prevent and treat iron deficiency anaemia in women during pregnancy and in the postpartum period in order to improve maternal and perinatal health.



6. Iron and folate supplementation

Requirements

- A national policy and locally adapted guidelines on iron and folate supplementation.
- Trained health care providers of maternal and neonatal care.
- Availability of Iron and folate supplements at all levels of care.
- A functioning referral system that ensures timely referral of pregnant women for monitoring and treatment, especially in the case of severe anaemia.
- A mechanism for recording cases and care of anaemia.
- Health education activities to increase awareness among women and in the community on the importance of iron and folate supplementation in pregnancy.



7. Provision of effective antenatal care

- Many maternal and perinatal deaths occur in women who have received no ANC.
- Globally true progress has been made in terms of increasing access and use of ANC. A recent study on antenatal care estimated that worldwide only 70% of women ever receive any ANC, whereas in industrialized countries more than 95% of pregnant women receive ANC.
- There are still disparities in the proportion of antenatal coverage between developing and developed countries.
- Epidemiological studies have demonstrated the benefits of ANC in reducing maternal and perinatal complications, although the exact components and timing of such ANC has been difficult to demonstrate.

Abou-Zahr CL, Wardlaw, TM. Antenatal Care in Developing Countries: Promises, Achievements and Missed Opportunities; an Analysis of Trends, Levels and Differentials, 1990-2001. Geneva: World Health Organization; 2003.



7. Provision of effective antenatal care

Standard

- All pregnant women should have at least four antenatal care (ANC) assessments by or under the supervision of a skilled attendant.
- These should, as a minimum, include all the interventions outlined in the new WHO antenatal care model and be spaced at regular intervals throughout pregnancy, commencing as early as possible in the first trimester.

Aim

- To prevent, alleviate or treat/manage health problems/diseases (including those directly related to pregnancy) that are known to have an unfavourable outcome on pregnancy.
- To provide women and their families/partners with appropriate information and advice for a healthy pregnancy, childbirth and postnatal recovery, including care of the newborn, promotion of early exclusive breastfeeding and assistance with deciding on future pregnancies in order to improve pregnancy outcomes.



7. Provision of effective antenatal care

Requirements

- A national policy and locally adapted guidelines that protect the rights of all women, regardless of their socioeconomic status or place of residence, to access good quality ANC services.
- National evidence-based guidelines detailing the essential minimum components of ANC, in line with the country epidemiological profile and country priorities and based on WHO guidelines and recommendations.
- Availability of sufficient number of skilled attendants to provide all women with good quality ANC.
- The necessary equipment and drugs to provide essential ANC.
- The system for referral of any pregnant woman to a facility capable of managing obstetrical and neonatal complications.
- National or locally-adapted evidence-based protocols and/or guidelines for the management of pregnancy-related complications.



Key elements to reduce maternal morbidity and mortality during labour, birth and the period immediately afterwards:

- Delivery by skilled health professionals.
- Timely management of complications that may arose during labour.
- Provision of appropriate information on how to ensure a safe birth and to seek timely skilled care in emergencies to woman and her family.
- Interventions to reduce the other barriers to seeking care, such as transport costs, perceptions of poor quality of care and cultural differences.



A birth plan/emergency preparedness plan includes identification of the following elements:

- The desired place of birth.
- The preferred birth attendant.
- The location of the closest appropriate care facility.
- Funds for birth-related and emergency expenses.
- A birth companion.
- Support in looking after the home and children while the woman is away.
- Transport to a health facility for the birth.
- Transport in the case of an obstetric emergency.
- Identification of compatible blood donors in case of emergency.



The standard

 All pregnant women should have a written plan for birth and for dealing with unexpected adverse events, such as complications or emergencies, that may occur during pregnancy, childbirth or the immediate postnatal period, and should discuss and review this plan with a skilled attendant at each antenatal assessment and at least one month prior to the expected date of birth.

Aim

 To assist women and their partners and families to be adequately prepared for childbirth by making plans on how to respond if complications or unexpected adverse events occur to the woman and/or the baby at any time during pregnancy, childbirth or the early postnatal period.



Requirements

- National and local policies to support access of all pregnant women to maternal and neonatal health care, including referral care.
- Skilled health care providers to support the woman in preparing the birth and emergency plan, to discuss it with pregnant women.
- National and local health education activities to promote the need for all women to access maternal and neonatal health care, and for all pregnant women to make a birth and emergency plan during pregnancy.
- National and local activities to facilitate community action to participate in, or where necessary mobilize, local efforts to ensure the timely transfer of women and babies with pregnancy- and birth-related complications, especially emergencies, to a facility that has the capacity to manage such complications or emergencies.



Reference Documents

- 1. Abou-Zahr CL, Wardlaw, TM. Antenatal Care in Developing Countries: Promises, Achievements and Missed Opportunities; an Analysis of Trends, Levels and Differentials, 1990-2001. Geneva: World Health Organization; 2003. Available from: <u>http://whqlibdoc.who.int/publications/2003/9241590947.pdf</u>
- 2. World Health Organization. Counselling for maternal and newborn health care: World Health Organization; 2013. Available from: <u>http://www.who.int/maternal_child_adolescent/documents/9789241547628/en/</u>
- World Health Organization, Reproductive Health and Research. Sexually Transmitted and Other Reproductive Tract Infections: A Guide to Essential Practice. Geneva: Dept. of Reproductive Health and Research, World Health Organization; 2005. Available from: <u>http://whqlibdoc.who.int/publications/2005/9241592656.pdf</u>
- 4. World Health Organization, Department of Making Pregnancy Safer and Department of Reproductive Health and Research. Standards for maternal and neonatal care. World Health Organization; 2007. Available from: http://whqlibdoc.who.int/hq/2007/a91272.pdf
- World Health Organization. Investment case for eliminating mother-to-child transmission of syphilis. World Health Organization; 2012. Available from: http://apps.who.int/iris/bitstream/10665/75480/1/9789241504348_eng.pdf
- 6. World Health Organization. World Malaria Report 2014. World Health Organization; 2014. Available from: http://www.who.int/malaria/publications/world_malaria_report_2014/en/
- 7. World Health Organization. Rubella: Fact sheet Nº367. World Health Organization; 2014. Available from: http://www.who.int/mediacentre/factsheets/fs367/en/
- 8. World Health Organization. Immunization coverage: Fact sheet N°378. World Health Organization; Reviewed March 2017. Available from: <u>http://www.who.int/entity/mediacentre/factsheets/fs378/en/</u>
- 9. World Health Organization. Malaria. Fact sheet N° 94. WHO. Upadated April 2017. Available from: http://www.who.int/mediacentre/factsheets/fs094/en/
- 10. World Health Organization. Sexually transmitted infections (STIs): Fact sheet N110. WHO; Updated August 2016. Available from: <u>http://www.who.int/mediacentre/factsheets/fs110/en/</u>