Purpose

The purpose of this guideline is to assist countries in incorporating PMTCT and MIP in Global Fund proposals. The addition of PMTCT and MIP to Global Fund proposals will allow MPS, in collaboration with the MAL and HIV/PMTCT unit departments, to support health systems strengthening (HSS) within countries. Using malaria and HIV as entry points, HSS will help to ensure continuum of care and universal coverage on maternal and newborn essential interventions.

Objectives

To enhance the capacity of WHO MPS country and regional staff and consultants to provide technical assistance to countries applying for the Global Fund for AIDS, TB and Malaria (GFATM) proposals. The technical guidance will support the inclusion of MNH services for HSS, which also positively influences PMTCT and MIP outcomes. These positive outcomes support the achievement of MDGs 4, 5 and 6.

The target objectives for this guideline are:

1. To ensure the delivery of a comprehensive and integrated PMTCT and MIP within antenatal care, skilled delivery, newborn care and postpartum care at all level of the health system from community to referral health centers.
2. Increase access to all population including poor population and those living in rural area to PMTCT and MIP within essential MNH intervention
3. To improve the quality of PMTCT and MIP within MNH care
4. To strengthen health planning, management, and monitoring of MNH including PMTCT and MIP in operational level

Rationale

Maternal and Newborn Health

Since the launch of the Safe Motherhood Initiative in 1987, greater attention has been given to the issue of maternal and newborn mortality. International commitment to decreasing both the maternal mortality ratio (MMR) and the neonatal mortality ratio (NMR) has increased, as there is a greater global recognition of the benefits of strengthening health systems through investments in maternal and child health.

Despite a global increase in attention to the causes and interventions of maternal and neonatal mortality, the large-scale improvement in morbidity and mortality that was hoped for has not yet been observed. Estimates show that the global MMR has only decreased by 5.4% from 1990 to 2005 (430 to 400 deaths per 100,000 live births). In Africa, where the smallest change was observed, the MMR decreased only 1.5% in 15 years, from 910 to 900 deaths per 100,000 live births. The situation is grave for newborns as well; the global NMR was estimated at 30 per 1,000 live births in 2000, while the NMR in sub-Saharan African and South Asian was estimated at 44 per 1,000 live births.

A lack of strong investments in the health system, and in MNH in particular, has resulted in a scarcity of resources that provide major constraints to ensuring universal access to essential interventions for
all mothers and newborns. Although evidence shows that investing in maternal health is economically sound, only a small fraction of the aid budget of major donors goes directly to this cause. However, the progress made by Egypt, Honduras, Malaysia, Sri Lanka, and Thailand shows that with political will and matching financial investment, maternal mortality\(^1\) can be reduced.

Without additional funding, attention, and support to MNH initiatives, it will be impossible to achieve the fourth and fifth Millennium Development Goals (MDGs), which aim to lower child mortality by two thirds and maternal mortality by three quarters.

**HIV and Malaria as Health System Entry Points for MNH**

HIV and malaria are two of the main diseases that most affect outcomes during pregnancy. It has been recognized that because of these diseases, the gains achieved by safe motherhood programmes are mitigated in countries where the prevalence of HIV and Malaria are the highest.

HIV impacts both direct (obstetrical) and indirect causes of maternal mortality. It is associated with an increase in pregnancy complications such as anemia, post-partum, hemorrhage, puerperal sepsis and complications of caesarean section. It also increases susceptibility to opportunistic infections such as pneumocystis carinii pneumonia, tuberculosis and malaria. AIDS related opportunistic infections as a cause of maternal death negates advances in obstetric services\(^2\), as demonstrated in Zambia where the rate of maternal mortality increased eight-fold over the past two decades, despite vast improvements in this area. PMTCT is also a great concern, as 25-35% of all infants born to HIV-infected women in developing countries become infected, causing 90% of all HIV infections in infants and children.

Concerning Malaria, pregnant women and children under five are the most vulnerable groups. Annually, 200,000 infants die due to malaria infection during pregnancy. In areas of low and unstable malaria transmission, malaria is responsible for 60% of fetal loss and over 10% of maternal deaths due to acute and severe clinical disease. In high or moderate transmission areas malaria can seriously threaten the livelihood of newborns, contributing to 6 to 14% of low birth weight infants, 8 to 36% of preterm births, 13 to 70% of intrauterine growth retardation, and 3 to 8% of infant death. In these areas, malaria also greatly contributes to maternal anemia (causing 2 to 15% of all cases), which in turn contributes to maternal mortality by causing an estimated 10,000 deaths per year\(^3\).

Considering the above, it is clear that maternal and newborn services should imperatively address these diseases during pregnancy, child birth and the post-partum period. Cost-effective interventions and tools for control are available, but coverage levels are still unacceptably low. Despite significant progress in the adoption of policies and strategies, development of implementation plans and availability of increased funding at the country level, there has been no significant impact on morbidity and mortality in most countries. This is due, in part, to partitioning of MNH services between different vertical programmes, in particular malaria and HIV.

**Global Fund and HSS**

GFATM is one of the main mechanisms for financial support in the health sector. Recognizing the benefits of investing in health systems, and subsequently incorporated a section on health systems strengthening (HSS) in its grant proposals, GFATM has been influential in bringing attention to the importance of HSS and to the integrated approach framework, which has been promoted since 1978 by ALMA ATA declaration.

GFATM encourages candidates to request financial support for strategic actions for HSS to address identified constraints. In 2007 a total amount of USD$ 4,726,312,579 was disbursed by GFATM; of

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\(^1\) Ronsmans, C. and W. J. Graham. 2006. The Lancet 368 (9542):11869-200


\(^3\) A strategic Framework for Malaria Prevention and Control During Pregnancy in the African region
that amount, only 1% was given for HSS, however the report of the Technical Review Panel (TRP) on round 7 proposal noted that there is much greater opportunity for HSS than is currently being accessed.

In order to ensure a continuum of care for MNCH and universal access to MNH services, including PMTCT and MIP, MPS in collaboration with Malaria and HIV departments offer support to GFATM proposals to include these elements. This includes:

- Promoting an integrated approach to service delivery
- Using MNH as an opportunity to improve the overall performance of the HS and its functions: quality, coverage and efficiency
- Using MNCH services as a platform for providing a comprehensive package of interventions throughout the lifecycle (pregnancy, childbirth, postnatal, childhood, adolescence) to women, their children and families.
- Maximizing technical and programmatic linkages between MNH and IVB, CAH, RHR, malaria, TB, HIV/AIDS, and nutrition towards the achievement of MDGs 4 and 5
- Strengthening collaboration between programs
- Increasing and maximizing use of available resources to strengthen health systems

Obstacles

Weak health systems are the central obstacle to obtain high coverage of comprehensive and quality antenatal, childbirth and postpartum services. This includes:

1. Lack of comprehensive and integrated antenatal care, skilled attendance at birth, newborn and postpartum services due to limited coverage in rural areas, inappropriate infrastructure, lack of essential supplies including commodities and equipment, human resource constraints and the disinterest of the private sector in providing services.

2. Financial barriers to accessing health caused by widespread poverty compounded with user fees and a low coverage of health insurance.

3. Poor quality of services due a lack of adherence to standards, appropriate training and supervision, a working referral system, a working system for the procurement, distribution and management of medicines, supplies and equipment and the insurance of quality.

4. Low utilization of health services due to a lack of knowledge in combination with social and cultural barriers.

5. Weak management capacity, which is affected by both a weak planning capacity and by weak monitoring and health information systems.

6. Weak human resource capacity due to mismanagement, low motivation, low performance, unequal reparation within the country and a shortage of health workers.

7. Insufficient policy and programmatic support to integrate PMTCT and MIP and PMTCT in MNH services due mainly to inefficient resource allocation.

Recommendations

WHO has recommended that PMTCT and MIP be implemented as an integral component of essential MNCH services within functioning health system, especially in countries that are the most affected by HIV and malaria. In order to remove the above identified restraints, activities are recommended to work with the health system to improve MNCH services. These activities are both effective and cost-appropriate ways to improve the availability, the content and the quality of services.
The proposed actions should be part of a country specific comprehensive approach to HSS, which includes strong linkages between the budget and program goals, objectives and service delivery areas.

To ensure the delivery of a comprehensive and integrated antenatal care, skilled delivery, newborn and postpartum care at all levels of the health system:

- Rehabilitate health infrastructure of the primary health care and referral levels to deliver ANC, skilled delivery, newborn and postpartum care, HIV counselling, testing and treatment, IPT, ITN and case management of malaria.
- Set up an integrated approach to drug procurement, storage and distribution system to reduce stock-ups of AIDS, malaria and MNH essential medications and supplies.
- Enhance the capacity of labs in the primary and district health levels to undertake HIV, malaria, syphilis and anaemia testing

*Increase access to all populations, including the poor and those living in rural areas, to PMTCT, MIP, and essential MNH interventions*

- Expand coverage of health centers in rural areas by increasing the number of health workers in those areas
- Increase community-based services and outreach activities
- Improve financial access to health services
- Involve the private sector

*Improve the quality of MNH care including PMTCT and MIP*

- Standardize clinical care through adaptation and development of guidelines including HIV and malaria prevention and treatment for ANC, child birth, newborn care and postpartum care
- Provide supportive supervision with quality assurance systems to health centers
- Develop an effective referral system for management of complications to ensure continuum of care

*Strengthen health planning, management, and monitoring of MNH including PMTCT and MIP at the operational level*

- Build and strengthen the planning, management and monitoring capacity in the district, regional and national levels of MNH including PMTCT and MIP
- Train district health management teams in the development of integrated and comprehensive MNH interventions including PMTCT and MIP
- Support the development and implementation of MNH comprehensive district operational plans including PMTCT and MIP
- Set up a strategic planning process
- Establish sound monitoring and evaluation strategies
- Strengthen the health information system to include relevant data on PMTCT and MIP to benefit all health priorities interventions and ensure sustainability for MNH

*Improve policy and programmatic environment*

- Develop a national health sector plan that includes MNH if none currently exists
- Support the development and implementation of national plans to accelerate the scale up of PMTCT and MIP within MNH
- Review existing policies and regulations to systematize the essential MNH package, including PMTCT and MIP, into services delivery at all levels
- Institutionalize national health accounts
- Improve resource allocation methods and practices
- Improve the coordination mechanism at all levels

*Develop and implement a comprehensive human resource plan*

- Provide in service and pre service training on MNH including PMTCT and MIP
- Promote delegation of competency
Ensure that national curricula are consistent with evidence based guidance on MNH including PMTCT and MIP
Recruit additional health workers to enable scale-up of MNH interventions
Support mechanisms for retention, motivation and increasing performance of health workers

**Increase community participation and use of health services to improve MNH**

- Build and information system on MNH including PMTCT and MIP to increase awareness and build capacity. Assess, document and disseminate community interventions as part of this information system.
- Train health workers on increasing community participation
- Foster links between the community and the health system
- Empower women, families and communities for increasing control over use and access of PMTCT and MIP within MNH
- Support implementation of community interventions to increase demand on PMTCT and MIP within MNH
- Build partnerships with other sectors

This list is non exhaustive and reference should be made to annex 3 of Guidelines for Proposal-Round 8.

**Indicators**

**To achieve universal access to essential MNH interventions, including PMTCT and MIP**

**Outcome Indicators:**

- Percentage of pregnant women who received at least 4 ANC visits that included VCT for HIV
- Percentage of pregnant on IPT according to national policy
- Percentage of pregnant/postpartum women sleeping under an ITN
- Percentage of HIV+ pregnant women receiving a complete course of ARV prophylaxis for PMTCT
- Percentage of HIV + postpartum women receiving counseling and support for infant feeding
- Percentage of postpartum women HIV-positive receiving ARV
- Percentage of births attended by skilled health personnel
- Percentage of births by caesarean section among HIV + mother
- Percentage of newborns receiving essential newborn care package
- Percentage of HIV-exposed infants seen within 2 months of birth for check-up

**Impact Indicators:**

- Neonatal mortality rate
- Maternal death rate associated with malaria
- Incidence of clinical malaria cases among pregnant women
- Maternal death rate associated with HIV
- Percentage of infants born to HIV infected mothers who are HIV infected
- Percentage of pregnant women sero-positive for HIV
- Percentage of live births with weight less than 2500 g
- Percentage of pregnant women with level of hemoglobin below 110g/l

**Improve/strengthen the capacity of health systems to deliver comprehensive and integrated ANC, skilled delivery, newborn care and postpartum care**

**Infrastructure output indicators:**

- Percentage of health facilities with arrangement for the integrated package of ANC, skilled delivery, newborn care and postpartum care including IPT, VCT for HIV

**Service delivery output indicators:**

- Percentage of health facilities providing the integrated package of ANC, skilled delivery, newborn care and postpartum care including IPT, VCT for HIV
- Percentage of health facilities providing advanced HIV/AIDS clinical care and support according national protocols and guidelines
• Percentage of health facilities providing appropriate testing and malaria case management for pregnant and postpartum women according national protocols and guidelines

Procurement and supply management output indicators
• Percentage of health facilities applying national regulations regarding procurement and supply management
• Percentage of health facilities with no drug stock out during the last month, or defined period

Increase access to all populations, including the poor and those living in rural areas

Infrastructure output indicators
• Percentage of the population living within reach of basic health services

Health financing output indicators
• Percentage of the population covered by a mutual or a health insurance

Strengthen health planning, management, and monitoring in the operational level

Strategic planning and policy development output indicators
• Percentage of district health team members trained in health planning
• Percentage of districts with a plan to develop and scale up MNH essential interventions including PMTCT and MIP

Information system monitoring and evaluation output indicators
• The building of a common monitoring and evaluation system for health interventions that include MNH interventions with PMTCT and MIP
• Percentage health facilities and districts reporting all indicators related to MNH including MPTCT and MIP
• Health facilities and districts submitting timely reports according to national guidelines

Improving the policy and programmatic environment

Strategic planning and policy development output indicators
• The existence of a national health sector plan that includes MNH
• Elaboration of the national action plan to develop, accelerate and expand the scale-up of PMTC and MIP within essential MNH interventions
• Review existing policies and regulations to systematize the essential MNH package, including PMTCT and MIP, into service delivery at all levels
• Standardized clinical care through adaptation and development of guidelines including HIV and malaria prevention and treatment for ANC, childbirth, newborn care and postpartum services
• Institutionalized national health account to improve resource allocation for MNH including PMTCT and MIP
• Incorporation of MNH including PMTCT and MIP within the national process on resource mobilization for health

Develop and implement a comprehensive human resource plan

Human resources output indicators
• Percentage of health workers per women in reproductive age group
• Percentage of health workers (by category) who attend in service training session during last year on essential ANC, birth attendance, post partum and newborn interventions including PMTCT, IPT, malaria case management and HIV/AIDS care and support interventions
• Percentage of health facilities fully staffed per level of health care and per district for providing MNH essential interventions according to national standards

Increase community participation to increase use of health services and improve MNH

Community system strengthening output indicators
• Number of community workers trained for implementing community based MNH activities including PMTCT and ITN promotion (interpersonal and intercultural competency)
• Percentage of health workers trained in community participation
• Number of community based organization with plans and regular monitoring systems
• Number of sites with community coordination focal points in place
Conclusions

Based on an analysis of a sample of GFATM round 8 proposals, it has been observed that a majority of countries include PMTCT interventions in the HIV proposal. The most common outcome indicator given was the percentage of infants born to HIV infected mothers who are infected. Although many countries have a section of their budget designated to PMTCT interventions, some do not and therefore cannot meet the recommendations and goals given in this guide. The TRP review form for this sample of GFATM round 8 proposals sites inadequacies in both PMTCT interventions and in HSS interventions as weaknesses. Other common weaknesses include unclear budgets, lack of details for implementation strategies and inappropriate interventions based on the stated goals of the proposals. From this information, it is clear that additional attention and funds must be spent on PMTCT and MNH interventions.

Implementation of PMTCT and MIP interventions can lead to an increased uptake in the wide range of interventions, and the quality of those interventions, for maternal and newborn health services. Greater efforts are needed to improve the availability, content and quality of services. In addition, increased attention is needed to ensure those particular groups of women and their children, specifically those living in rural areas, the poor and the less educated, have access to services.