Strategies toward ending preventable maternal mortality (EPMM)

Introduction
As the 2015 target date for the MDGs nears, an unacceptable level of preventable maternal mortality remains an unfinished agenda and one of the world’s most critical challenges despite significant progress over the last decade. Although maternal deaths worldwide have decreased by 45% since 1990, 800 women still die each day from largely preventable causes before, during, and after the time of birth. These deaths are not equally distributed. Ninety-nine percent of preventable maternal deaths occur in low and middle income countries. Within countries, risk of death is disproportionately high among the most vulnerable segments of the society. Maternal health, wellbeing and survival must remain a central goal and an investment priority in the post-2015 framework for sustainable development to ensure that progress continues and accelerates, with a focus on reducing inequities and discrimination. Attention to maternal mortality and morbidity must be accompanied by improvements along the continuum of care for women and children, including commitments to sexual and reproductive health and newborn and child survival.

The time is now to mobilize global and country-level commitment for ending preventable maternal mortality (EPMM). Analysis suggests “a grand convergence” is within our reach, when through concerted efforts we can eliminate wide disparities in current maternal mortality and reduce the highest levels of maternal deaths worldwide (both within and between countries) to the rates now observed in the best-performing middle income countries. To do so would be a great achievement for global equity and reflect a shared commitment to a human rights framework for health.

High-functioning maternal health programmes require awareness of a changing epidemiological landscape in which the primary causes of maternal death shift as maternal mortality ratios decline, described in the “obstetric transition”. Strategies to reduce maternal mortality must take into account changing patterns of fertility and causes of death. The ability to count every maternal and newborn death is essential for understanding immediate and underlying causes of these deaths and developing evidence-informed, context-specific programme interventions to avert future deaths.

The EPMM targets and strategies are grounded in a human rights approach to maternal and newborn health, and focus attention on eliminating significant inequities that persist within and between countries and result in disparities in access, quality, and outcomes of care. Concrete political commitments and financial investments by country governments and development partners are necessary to meet the targets and carry out the strategies for ending preventable maternal mortality, a human rights imperative.

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Background

Lessons learned: successes and challenges
Millennium Development Goal (MDG) 5a calls for a 75% decrease in the maternal mortality ratio (MMR) from 1990 to 2015. By 2013, a 45% reduction was achieved (from 380 deaths/100,000 live births in 1990 to 210 deaths/100,000 live births in 2013), representing significant progress but still falling far short of the global goal.

In order to achieve the MDG target, each country needed to maintain an average annual rate of reduction (ARR) in MMR of 5.5%. Instead, the average ARR among countries between 1990 and 2013 was 2.6%. However, countries showed that with commitment and effort, they could accelerate the pace of progress: the average ARR increased to 4.1% between 2000 and 2010, from just 1.1% from 1990-2000. Moreover, 19 countries sustained an average ARR of over 5.5% for every year from 1990-2013, and the highest average ARR ranged from 8.1% to 13.2%.

The MDGs focused attention and mobilized resources, political will in countries, and global commitments to improving sexual and reproductive health, and maternal and child survival to an unprecedented degree. They demonstrated that shared global goals, targets, and strategies can galvanize the concerted effort needed to achieve measurable progress. The progress made has brought the “grand convergence” of health outcomes into view, making it possible to envision a world in which

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low- and middle-income countries and high-income countries have comparable rates of maternal mortality.\(^6\)

At the same time, there are significant lessons to be learned. The MDG framework has been criticized for giving rise to a fragmented approach to health planning that has not encouraged intersectoral collaboration or programme integration to improve coordination, innovation, and efficiency. Furthermore, the MDGs paid insufficient attention to development principles such as human rights, equity, poverty reduction, empowerment of women and gender equality. The focus on national averages may have resulted in prioritization of conditions and populations most easily addressed rather than elimination of health disparities among vulnerable subgroups.\(^7\)

**Looking forward**

A scan of the horizon reveals changing trends in population demographics and the global disease burden that will impact maternal risk and influence the strategies countries implement to end preventable maternal deaths.

The “obstetric transition” concept was adapted from classic models of epidemiologic transitions experienced as countries progress along a trajectory toward development. Applied to maternal and newborn health care, countries pass through a series of stages that reflect health system status and the shift in primary causes of death as reductions in the rate of maternal mortality are achieved. In theory, as development progresses, bringing declines in fertility and overall maternal mortality, the causes of death shift from direct causes and communicable disease to a greater proportion of deaths from indirect causes and chronic diseases.\(^8\) In practice, this shift is observable in recent estimates of global maternal causes of death.\(^9\) Different primary causes of death require different strategies and interventions. The stages described in the obstetric transition model can provide guidance about the most urgent health priorities and focal areas for improvement at various levels of MMR. Improved understanding of the causes of death in each context through maternal death surveillance and response (MDSR), confidential enquiries, and other methods for counting every death will provide more information to plan targeted interventions.

An important corollary to this model is the need for dynamic planning that both accounts for immediate priorities and projects future needs as countries move toward EPMM. For example, while countries with very high MMR need to focus strategies on family planning, tackling direct causes of maternal mortality, and improving basic social and health system infrastructure and minimum quality of care, countries with lower MMR face a different set of primary risks and health system challenges; their strategies must shift to address non-communicable diseases and other indirect causes, social determinants of poor health, humanization of care, and the over-use of interventions. Countries in the middle MMR ranges face simultaneous challenges of infectious and non-communicable conditions that have an impact on

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maternal health and survival. While equity is an important concern at all levels of MMR, as average rates of death fall, special attention to eliminating disparities among vulnerable subgroups is highlighted.

In light of this reality, EPMM targets and strategies must provide a framework that is specific enough to offer real guidance for strategic planning by policy makers and programme planners, yet flexible enough to be meaningfully interpreted and adapted for maximal effectiveness in the various country contexts in which it must be implemented. An intensive consultative process has informed the development of EPMM targets and strategies developed to fulfill this objective (see Annex 1).

Box 1. Population Dynamics

Changing demographics will have significant implications for programme planning and service delivery in the decades to come. For example, while women in remote rural areas have historically had significantly poorer pregnancy outcomes, as more and more people around the world move into cities, globally there are 55 million new slum dwellers since 2000. According to UN Habitat statistics, Sub-Saharan Africa has a slum population of 199.5 million, South Asia 190.7 million, East Asia 189.6 million, Latin America and the Caribbean 110.7 million, Southeast Asia 88.9 million, West Asia 35 million and North Africa 11.8 million.10 The population influx into cities and increased number of people living in urban slums may well change how people demand and access health services.

Factors such as rapid urbanization, political unrest in conflict areas, changes in fertility rates, or growing numbers of institutional births change the panorama of maternal risk and call for reappraisal of a country’s maternal health strategies and programme priorities. Privatization and decentralization of health care delivery systems are responses to changing population dynamics whose effects must be studied.11 Countries need tools to identify current programme priorities based on the most frequent direct causes and determinants of maternal death in their context. Immediate, medium term and long range planning are needed to project the health system infrastructure, commodities, and maternity care workforce that can meet these evolving needs. A single maternal health strategy will not be adequate for every country, or within each country over time and for all subpopulations.

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10 http://unhabitat.org/urban-themes-2/housing-slum-upgrading/
Targets for Maternal Mortality Reduction post 2015

Global targets to increase equity in global MMR reduction

Maternal health stakeholders support the need for continuing to have a specific target for reducing maternal mortality in the post-2015 development framework, with the ultimate goal of ending all preventable maternal deaths. To achieve this goal, progress needs to be accelerated. Therefore, by 2030, all countries should reduce MMR by 2/3 and no country should have an MMR above 140. Intensified action is called for in countries with MMR greater than 420/100,000. By these collective efforts, we can achieve a global MMR of less than 70 by 2030.

- **Global target:** Average global target Maternal Mortality Ratio (MMR) of less than 70 maternal deaths per 100,000 live births by 2030.
- **Supplementary national target:** By 2030, no country should have an MMR greater than 140 deaths per 100,000 live births, a number twice the global target.

Achieving the above post-2015 global target will require an annual global rate of reduction (ARR) in MMR of 5.5%, similar to the current MDG 5a target. To achieve the global target all countries must contribute to the global average by reducing their own MMR by at least two-thirds by 2030, from the estimated 2010 levels. Countries with the highest MMRs (MMR >420) will need to reduce their MMR at an ARR that is steeper than 5.5%. The secondary target is an important mechanism for reducing extremes of between-country inequity in global maternal survival.

These targets are ambitious yet feasible given the evidence of progress achieved over the past 20 years. They will focus attention on maternal mortality reduction and maternal and newborn health as critical components of the post-2015 development agenda. The process for setting these targets and the choice of indicators are articulated elsewhere.¹²,¹³

Country targets to increase equity in global MMR reduction

Concerted national and global efforts are needed to reduce disparities in maternal mortality between countries. Within countries, disparities between subgroups must also be addressed to achieve both national and global targets. To prioritize equity at country level, expanded and improved equity measures should be developed to accurately track efforts to eliminate disparities in MMR between sub-populations within countries:

- **Country targets:** The MMR target of less than 70 by 2030 applies at the global level but not necessarily for individual countries. Two sets of national targets are recommended (see fig. 2):
  - For countries with MMR less than 420 in 2010 (the majority of countries worldwide): reduce the MMR by at least two-thirds from the 2010 baseline by 2030.
  - For all countries with baseline MMR greater than 420 in 2010: the rate of decline should be steeper so that in 2030, no country has an MMR greater than 140.

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¹² Targets and strategies for ending preventable maternal mortality; consensus statement. WHO, 2014 Available at www.who.int/reproductivehealth/topics/maternal_perinatal/epmm

¹³ Targets for ending preventable preventable maternal mortality. In preparation
Figure 2: MMR reduction at country level

Target-setting is accompanied by **the need for improved measurement approaches and data quality to allow more accurate tracking of country progress as well as causes of death**. To contextualize the targets and allow collaborative strategic planning and best practice sharing at the regional level, it may be appropriate, in some regions, to define more ambitious targets.

**Establishment of an interim milestone to track progress toward the ultimate MMR target**

To help countries monitor progress toward individual national targets for 2030 and evaluate the effectiveness of their chosen mortality reduction strategies, a major interim milestone is proposed for 2020.

It should be noted that specific values for the targeted overall and annual percent reductions may change slightly as UN estimates for baseline global and country MMRs are updated.

**Strategic framework for policy and programme planning to achieve MMR targets**

**Laying the foundation for the strategic framework**

*The contribution of maternal, newborn, and child health to sustainable development*

Ending preventable maternal mortality is a pillar of sustainable development, considering the critical role of women in economies, societies, and in the development of future generations and communities. Investing in women’s and children’s health will secure substantial health, social and economic returns. A recent analysis suggests that increasing health expenditure by just US$ 5 per person per year through
2035 in the 74 countries that account for the bulk of maternal and child mortality could yield up to 9 times that value in economic and social benefits.  

**Focusing on implementation effectiveness as the foundation for a paradigm shift**

A paradigm shift for the next maternal health agenda rests on a strong foundation of implementation effectiveness, which marries a well-considered strategic policy framework with a ground-up focus on implementation performance that accounts for contextual factors, health system dynamics, and social determinants of health.

Effective care for mothers and newborns must draw upon intersectoral collaboration and cooperation at every stage, given the vital linkages between MMR and a country’s water and sanitation systems, transportation and communication infrastructure, and educational, legal and finance systems. It must be responsive to local conditions, strengths and barriers, and address implementation needs and challenges from the ground up. Moreover, it must be people-centered. Programme planning must be driven by people’s aspirations, experiences, choice, and perceptions of quality. Care services must be based on respect for women’s and girls’ agency, autonomy, and choice.

Effective programme planning must be wellness-focused and population-based, providing supportive preventive care so that the majority of women can experience planned, uncomplicated pregnancies and births, while complications are recognized and interventions, when indicated, undertaken in an appropriate and timely manner. To this end, care must emphasize the framework of availability, accessibility, acceptability and quality of services (AAAQ), as well as other human rights standards such as participation, information, accountability, which are ensured through cultivation of a robust enabling environment.

Effective service delivery integrates the delivery of key interventions across the RMNCH+A spectrum whenever possible, to lower costs while increasing efficiencies and reducing duplication of services, at the same time meeting the health and social needs of women and communities, and supporting the goal of relationship-based care. Maternity care policy makers and planners must prioritize adequate resources and effective health care financing, while ensuring that service delivery is cost-efficient.

To be effective for every woman, mother, and newborn, maternity care must adopt a rights-based approach to planning and implementation, situating healthcare within a broader framework of equity, transparency, and accountability, including mechanisms for participation, monitoring, and redress. Furthermore, improved metrics, measurement systems, and data quality are needed to ensure that all maternal and newborn deaths and stillbirths are counted, and that other important process, structure, and outcome indicators of AAAQ are tracked.

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Guiding principles, cross-cutting actions, and strategic objectives for policy and programme planning

The following strategic framework reflects the contributions and support of a wide stakeholder base, under which key interventions and measures of success must be developed.

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**Ultimate Goal: Ending Preventable Maternal Mortality**

**Guiding principles for EPMM**

- Empowering women, girls, and communities.
- Protecting and supporting the mother-baby dyad.
- Ensuring country ownership, leadership, and supportive legal, regulatory and financial frameworks.
- Applying a human rights framework to ensure that high-quality reproductive, maternal, and newborn health care is available, accessible, and acceptable to all who need it.

**Cross-cutting actions for EPMM**

- Improving metrics, measurement systems and data quality to ensure that all maternal and newborn deaths are counted.
- Allocating adequate resources and effective health care financing.

**Five strategic objectives toward EPMM**

1. Addressing inequities in access to and quality of reproductive, maternal, and newborn healthcare services.
2. Ensure universal health coverage for comprehensive reproductive, maternal and newborn healthcare.
3. Addressing all causes of maternal mortality, reproductive and maternal morbidities, and related disabilities.
4. Strengthening health systems to respond to the needs and priorities of women and girls.
5. Ensuring accountability in order to improve quality of care and equity.
Guiding principles for EPMM

Empowering women, girls, families and communities
Prioritizing the survival and health of women and girls requires recognition of their high value within society through attention to gender equality and empowerment. This includes strategies to ensure equal access to resources, education and information; power of decision making along with the availability of options to allow women to exercise their choices to eliminate gender-based violence including disrespect and abuse of women using health care services. Evidence shows when girls are given the opportunity to delay marriage and childbearing and to advance in school, maternal mortality goes down for each additional year of study they complete. These and other interventions that develop women’s capacity to care for themselves contribute to empowerment, which includes autonomy over reproductive lives and the ability to make a decision when and whether to marry and to have children, as demonstrated by their own health care decisions, access to health care services, and the ability to influence the quality of that care through participatory mechanisms and social accountability. Moreover, supporting women’s ability and entitlement to make active decisions also positively influences the health of their children and families.

People are empowered to participate in and influence how the health system works when they are included as true partners in accountability mechanisms, and when participatory processes are instituted for identifying factors that affect women seeking and reaching care. Numerous studies have also shown that engaging men as supporters and change-agents can improve the health of families and entire communities. In addition to education, information, and traditional or social media campaigns, these critical dimensions of a framework for empowerment, can help change social norms in families and communities.

Integrate maternal and newborn care, protect and support the mother-baby relationship
The health outcomes for mothers and their newborns and children are inextricably linked; maternal deaths and morbidities impact newborn and child survival, growth, and development. Therefore, an integral part of the framework is to protect and support the mother-baby relationship and to encourage the integration of strategies and service delivery for both. In effect, any policy or programme that focuses on either maternal or newborn health should include consideration of the other. This is the principle of “survival convergence”. It is important to recognize the special importance of the mother-baby relationship. Newborn health outcomes are enhanced when necessary care is provided without separation from the baby’s mother. Such integration of care is also more acceptable to women and families, and efficient for the health system. Maternal and newborn health services should be delivered together whenever this can be done without compromising quality of care for either person.

16 https://www.unfpa.org/public/home/publications/pid/13
18 https://www.unfpa.org/public/home/publications/pid/13532
Prioritize country ownership, leadership, and supportive legal, regulatory and financial mechanisms

The strategic framework for maternal and newborn health prioritizes country ownership, leadership, and supportive legal, regulatory and financial frameworks to ensure the strategies for ending preventable maternal mortality transcend policy and translate into action within countries. A key focus of this principle is good governance and effective stewardship of the full array of political tools, social capital, and financial resources available to support and enable a high-performing health system. Transparent, publicly available information on maternal health budgets and policies is needed to promote accountability and deter corruption.

Country ownership applies to leaders and policy makers, and also extends to civil society through community input and participation. Community engagement and mobilization are enhanced through social accountability mechanisms that encourage women and communities to participate in the system and play their part to ensure that maternal and newborn health care is available, acceptable, accessible and high quality, and is organized to respond to their health needs as well as their values and preferences.21

Leadership encompasses the enabling environment, and refers to enabling policies and financial commitments by country leaders, and also development partners and funders. Strong leadership is critical to champion the global and country MMR targets, enable all countries to make continuous progress through the stages of the obstetric transition, and develop and maintain health care systems that can reliably and equitably deliver the necessary care to end preventable maternal deaths.

Supportive legal mechanisms include laws and policies that uphold human rights in the context of maternal health care, laws that guarantee access to comprehensive maternal health care and provide for universal health coverage, mechanisms for legal redress for those harmed, abused or abandoned in the course of seeking care, as well as supportive employment laws and frameworks for legal licensure of the maternity care workforce within the jurisdictions where they are needed.22,23,24,25

Supportive regulatory mechanisms enable effective human resources management of the necessary workforce including, for example, regulation of midwives, nurses, and doctors, and to guide task-sharing with the goal of increasing timely access to quality care including interventions for prevention and management of complications. The collection of vital statistics and improved data on causes of maternal and newborn deaths and stillbirths through MDSR can also be supported through facilitative regulatory mechanisms.

23 HRC resolution 11/8
24 Technical guidance on the application of a human rights based approach to the implementation of policies and programmes to reduce preventable maternal morbidity and mortality. Available http://www2.ohchr.org/english/issues/women/docs/A.HRC.21.22_en.pdf
Supportive financial mechanisms include conditional cash transfers, voucher programmes, various forms of insurance, and performance-based incentives. Supportive financial mechanisms can also refer to donor harmonization and efforts by donors to ensure that funding does not impose structural barriers to the achievement of important outcomes not readily measured within short funding cycles or along vertical technical and programme lines.

**Apply a human rights framework to ensure that high-quality reproductive, maternal, and newborn health care is available, accessible, and acceptable to all who need it**

The United Nations Human Rights Council (HRC) has recognized that not only are high rates of maternal mortality and morbidity are unacceptable but that they constitute a violation of human rights. This resolution emphasizes that maternal mortality is not solely a health and development issue, but the final manifestation of various forms of discrimination against women. International human rights standards require governments to take steps to “improve child and maternal health, sexual and reproductive health services, including access to family planning, pre- and post-natal care, emergency obstetric services and access to information, as well as to resources necessary to act on that information”. Where resources are limited, states are expected to prioritize certain key interventions, including those that will help guarantee maternal health and in particular emergency obstetric care.

However, a human rights approach to maternal and newborn health extends beyond the provision of services to embrace a broader application of rights-based principles to the fundamentally social enterprise of protecting and supporting the health of populations. The Office of the United Nations High Commissioner on Human Rights (OHCHR) includes empowerment, participation, non-discrimination, transparency, sustainability, accountability, and international assistance as fundamental principles for addressing maternal mortality and morbidity using a rights-based approach. Furthermore, OHCHR guidance specifically highlights enhancing the status of women, ensuring sexual and reproductive health rights including addressing unsafe abortion, strengthening health systems, and improving monitoring and evaluation as necessary elements of a rights-based strategic framework for reducing maternal mortality and morbidity.

Moreover, as it becomes possible to envision an end to preventable maternal and newborn deaths, the scope of strategic planning must move beyond focusing solely on prevention of the worst outcomes for those women at highest risk toward supporting and encouraging optimal outcomes for all women. Thus, the topline priorities of a health agenda for a sustainable future must include educating and empowering women, gender equality, poverty reduction, universal coverage and access, and equity, within the overall context of a rights-based approach to health and health care. This re-orientation toward optimal health for all requires a fundamental paradigm shift.

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26 HRC resolution 11/8
27 UN Committee on Economic, Social and Cultural Rights, General Comment 14, 2000.
Cross-cutting actions for EPMM

Improve metrics, measurement systems and data quality

A key aim of improving measurement systems is to ensure that all maternal and newborn deaths are counted. Only an estimated one third of countries have the capacity to count or register maternal deaths. Less than two fifths of all countries have a complete civil registration system with accurate attribution of the cause of death, which is necessary for the accurate measurement of maternal mortality.

Today, estimation is necessary to infer maternal mortality ratios in many countries where little or no data are available; unfortunately, these countries are the very ones where mortality and severe morbidity are often highest due to weak health infrastructure. Because countries around the world do not use standardized instruments and indicators to track maternal mortality, estimation must also be used presently to make international comparisons and to measure progress toward global targets. Estimates that are adjusted using models that allow comparability and make up for missing data yield different point estimates than countries’ own data sources, and this causes confusion and consternation. A crosscutting priority for the post-2015 strategy is to move toward counting every maternal and perinatal death through the establishment of effective national registration and vital statistics systems in every country, as articulated within the recommendations of the Commission for Information and Accountability. This will require implementation of a revised standard international death certificate that clearly identifies deaths in women of reproductive age and their relationship to pregnancy, and standard birth and perinatal death certificates (stillbirths and newborn deaths to 28 days of age). MDSR and similar perinatal death surveillance, including confidential inquiries and collection of quality of care data on near misses and severe morbidities are also important mechanisms for ensuring that every death is counted.

There are other equally important purposes for improved metrics and measurement systems, including for the purpose of accountability, to track equity, and to ensure programme effectiveness. Indicators for equity need to be developed that do not overburden data collection systems, specifically at facility level. Agreement on programme coverage indicators is needed to measure quality and effectiveness of care; these data could be used also for accountability, e.g. through auditing and feedback. In addition standardized data sources, indicators, and intervals for data collection to allow for better global comparisons, the local use of data for ensuring quality of care and health system accountability in clinical programmes is an important component of programme effectiveness. New technologies for data collection (e.g., mapping, mobile phones) with shown effectiveness could also speed up data collection to allow effective, real-time use.

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Prioritize adequate resources and effective health care financing

The imperative to prioritize adequate resources for maternal and newborn health refers both to development partners and donors in the global community, and to political leaders and financial decision makers in countries. It encompasses adequate budgetary allocation through specific, transparent budget lines for maternal and newborn health. It includes health care financing for universal health coverage as well as innovative financing mechanisms and incentives to ensure equity, increase coverage and improve quality. Intersectoral collaboration beyond the health sector narrowly defined is a critical success factor for ending preventable maternal mortality; close partnership with the financial sector is a vital component of intersectoral collaboration, and must include both public and private national health care payers, ministries of finance, and private as well as bilateral global development partners and donors.

Budget transparency, assured through budget monitoring, analysis and advocacy, is an important way for civil society beneficiaries to verify that policy commitments made are in fact fulfilled. A human rights approach to monitoring maternal health budgets ensures that policy decisions, including allocation of financial resources, are carried out on the basis of transparency, accountability, non-discrimination, and participation.33

Effective health care financing includes exploration of financial incentives and other economic measures for improving accessibility, acceptability, availability and quality of maternal health services to women, families and communities. Some financial incentives have been shown to increase utilization of maternal and newborn health services and offer promise in their ability to improve quality and equity, while in some cases financial incentives have had unintended adverse effects; more studies are needed to ascertain the full impact of financial incentives on maternal health outcomes.34

Box 2: Rationale and scope of strategic objectives for EPMM

Progress toward EPMM necessitates a comprehensive approach along the continuum of care for each pregnancy and throughout each woman’s reproductive years. The approach should address not only the causes of maternal death, but also the social and economic determinants of health and survival.

It calls for a system-level shift from maternal and newborn care that is primarily focused on identification and treatment of pathology for the minority to skilled, wellness-focused care for all. This includes preventive and supportive care to strengthen women’s own capabilities in the context of respectful relationships, care that is responsive to their needs, focuses on promotion of normal reproductive processes, and in which first-line management of complications and accessible emergency treatment are provided when needed. This approach requires effective interdisciplinary teamwork and integration across facility and community settings. Findings of a new Lancet special series suggest that midwifery is central to this approach. (Source: Renfrew MJ, McFadden A, Bastos MH et al, The Lancet Vol 383, in press, embargoed until 23 June 2014, 00.01hrs.)

The comprehensive maternal health strategic framework presented here for inclusion in the post 2015 sustainable development agenda applies across the full continuum of health care that is relevant to the goal of ending preventable maternal and newborn mortality and maximizing the potential of every woman and newborn to enjoy the highest achievable level of health. This includes sexual, reproductive, maternal, and newborn health care and comprises adolescent health, family planning, and attention to the infectious and chronic non-communicable diseases that contribute directly and indirectly to maternal mortality.

Furthermore, the human-rights approach that is a fundamental guiding principle of this strategic framework extends beyond solely the organization and provision of clinical services to include focused attention to broader human rights issues that contribute to the social determinants of health, such as the status of women and gender equality, poverty reduction, universal coverage and access, non-discrimination and equity.

This strategic framework is intended to provide meaningful and useful guidance to inform programme planning for EPMM and optimal maternal and newborn health. Given the reality of finite resources and limited capacities, not every desired intervention can be undertaken immediately and some interventions will be more effective than others. Thus, decision makers have to make rational choices about priorities and phasing, bearing in mind the human rights principle of progressive realization – the obligation to do everything that is immediately possible given the constraints of limited resources. The principle of progressive realization also outlines obligations that are immediate regardless of resources, for example, the immediate obligation to take action to eliminate discrimination.

The key interventions for ending preventable maternal mortality are known; thus the post-2015 maternal health strategy is not a list of prescribed technical interventions. Countries must go beyond doing the right things to do things right. Alongside effective clinical interventions, it is important to pay attention to the non-clinical aspects of respectful maternity care. The development of health systems that can deliver the correct interventions both effectively and equitably, with reliable high quality under conditions that are dynamic is a priority. Moreover, a firm grounding in implementation effectiveness is important, since programme priorities are subject to change as countries move through stages in their transition to lower levels of maternal mortality.

The strategic framework for EPMM is intentionally non-prescriptive. It offers broad strategic objectives rather than a detailed list of clinical interventions; interventions and measures of success must be tailored to the country and selected based upon local context including epidemiology, geography, health systems capacity, and available resources. Each strategic objective includes illustrative examples of global best practices that need to be adapted, adopted and monitored to ensure that they are effective in context. Thus, the strategy emphasizes the importance of short term, medium and long-range program planning to achieve and maintain high-performing systems that can deliver improved outcomes.
Elaboration of five strategic objectives to guide programme planning toward EPMM

1. Address inequities in access to and quality of sexual, reproductive, maternal, and newborn healthcare services

Planning priorities
All countries should increase efforts to reach vulnerable populations with high-quality primary and emergency RMNCH+A services. Disparities in access to and quality of health care exist wherever there is a factor (such as wealth, geography, ethnicity, class, caste, race, religion or any other factor) that places some people at a social disadvantage relative to others and puts them at risk for stigma, discrimination, and unequal treatment; in the context of reproductive, maternal and newborn health it includes disrespect and abuse of women who seek maternity care in facilities or from skilled providers. Vulnerable populations include the urban and rural poor, adolescents, people who are marginalized, socially excluded, LGBT, living with HIV, disabled, and those in conflict/post-conflict areas, as well as many other groups who experience systematic disparities. These disparities must first be recognized and analyzed at a basic level to determine how a health system’s operations, its planning and programming for maternal health, and service distribution result in inequitable health outcomes so they can be addressed and eliminated.

Governments and technical experts should improve the availability and effective use of data on inequities and their effect on reproductive and maternal health. Valid equity indicators must be developed. Disaggregated data on them should be routinely collected and used to understand the determinants of inequities and to design, implement and monitor interventions to eliminate them.

Programme planners should promote equitable coverage and equal access to sexual, reproductive, maternal and newborn healthcare services through better efforts to understand the unique challenges and needs of sub-populations within societies. This includes identifying and addressing barriers to access--financial, gender, cultural, geographic, or based on fear of disrespectful care--and understanding the factors, including values and preferences, that make care acceptable to all who need it and encourage sustained demand at scale. It also means ensuring an adequate workforce is available to provide the full range of RMNCH+A care to all subpopulations; this may include workforce analysis and long range planning, subsidies to representatives of vulnerable populations for health professional education, human resources incentives to encourage placement and retention in underserved communities, and task-sharing to extend the reach of essential services.

Health care quality reflects the degree to which care systems, services, and supplies increase the likelihood of a positive health outcome. Recognizing that inequity in maternal health includes systematically uneven quality and not just access, efforts must also ensure that the care that is offered to all populations is of comparably high quality. To this end, governments should plan, implement and evaluate contextualized policies, programmes and strategies that take account of inequities and ensure that representatives from disadvantaged groups have a voice in these processes. This must be part of

35 Institute of Medicine, 1990.
the effort to understand how to make a global best practice yield effective, high-quality results in the context in which it is to be implemented and for all populations.

2. Ensure universal health coverage for comprehensive sexual, reproductive, maternal and newborn healthcare

Planning priorities

Universal health coverage (UHC) is defined as “all people receiving quality health services that meet their needs without being exposed to financial hardship in paying for the services”. This definition encompasses two equally important dimensions of coverage: reaching all people in the population with essential health care services, and protecting them from financial hardship due to the cost of healthcare services. A particular emphasis must be placed on ensuring access without discrimination, especially for the poor, vulnerable and marginalized segments of the population.

Governments should determine the set of essential covered services, using evidence of cost-effectiveness to identify the priority package of RMNCH+A care services. Strategic planning must include resource mobilization and effective service delivery to guarantee that the worst off in the population are reached with the essential service package, based on an understanding of population demographics and planning for the appropriate number of human resources.

A priority for expanding coverage to more people is to identify and remove barriers to utilization, and to promote the availability, accessibility, acceptability and quality of MNH services. Countries should develop national strategies to improve care coverage during labour and childbirth, and to expand high-quality, evidence-based service coverage to include preconceptual and interconceptual care, family planning, antenatal care and postpartum care. Standards are needed for the indications and safe use of medical and surgical interventions, including caesarean section. Development of functioning referral systems is crucial. To achieve these goals, governments and development partners should explore innovative financing mechanisms to drive improvements in both coverage and quality. Specific provisions to protect families accessing EmOC and emergency newborn care from financial catastrophe are especially important.

Applying a human rights approach to UHC suggests a pathway to progressive universalism. Reports from WHO and a Lancet Commission have described a pathway to UHC that could be achieved within one generation. Governments are called upon to first institute publicly funded insurance making essential services available to all without out-of-pocket expenditures, and later to expand services through progressive mandatory prepayment and pooling of funds with exemptions for the poor, bolstered by a variety of financing mechanisms, to cover a larger benefits package. Transparency and participatory

mechanisms to include civil society in both the decision making process and the monitoring and evaluation of UHC programmes are necessary to maximize ownership and promote accountability.

3. Address all causes of maternal mortality, reproductive and maternal morbidities, and related disabilities

Planning priorities
The post-2015 global maternal health strategy cannot prescribe a list of interventions that will maximize progress toward EPMM in every country. Each country must first understand the most important causes of maternal deaths in its population. Program planning must then involve prioritization based on analysis of context-specific determinants of risk and health systems capacity. The stages of a progressive obstetric transition described by Souza et al. (2014) provide a framework and suggest program priorities that may take precedence in each stage. This framework cannot be applied indiscriminately but provides a basis for country-specific analysis and adaptation based on local findings. Thus, a clear planning priority is that countries should improve the quality of certification, registration, notification and review of causes of maternal death.

Box 2: Causes of maternal mortality
While the distribution of major causes of maternal death differs from country to country and for sub-populations within countries, the major causes of death are well-known, as noted in recent reports. 

<table>
<thead>
<tr>
<th>Cause</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other direct</td>
<td>27.1%</td>
</tr>
<tr>
<td>Embolism</td>
<td>14%</td>
</tr>
<tr>
<td>Sepsis</td>
<td>10.7%</td>
</tr>
<tr>
<td>Hypertensive disorders</td>
<td>7.9%</td>
</tr>
<tr>
<td>Haemorrhage</td>
<td>9.6%</td>
</tr>
<tr>
<td>Abortion complications</td>
<td>3.2%</td>
</tr>
</tbody>
</table>

Figure 3: Global estimates for causes of maternal mortality 2003-2009

These estimates and another recent report support the notion of a transition from a majority of death attributable to direct causes where MMR is very high toward a greater proportion due to indirect causes.

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as MMR declines, necessitating an accompanying shift in country strategies for maternal mortality reduction.42,43

Maternal causes of death that carry stigma, including abortion and HIV infection, are likely to be underreported or misclassified. Nevertheless, recent analyses suggest the number of deaths following unsafe abortion has increased significantly in sub-Saharan Africa, even as the global number of maternal deaths attributable to complications of abortion has fallen due to major decreases in developed countries since 1990. Although HIV-related deaths in pregnancy accounted for 2.6% of global maternal deaths in 2013, they were associated with nearly 4% of all maternal deaths in sub-Saharan Africa.44

Indirect causes of maternal death include delays in seeking, accessing, and receiving appropriate treatment, as well as health system deficiencies that compromise the availability, accessibility or quality of care. Having identified the most important causes of maternal death, as well as the prevalence of key diseases and malnutrition, the unmet need for family planning, the capacity and reach of the health system, and the human and financial resources available, each country should plan a context-specific strategy for implementing effective interventions to address them.

Each strategy should include a systematic approach to implementing evidence-based standards, guidelines and protocols, and to monitoring and evaluating their outcomes. Countries and development partners must agree to collect data on indicators that allow implementers to evaluate the quality and effectiveness of their care processes. To date, few MNH programs in high burden countries have adopted a large scale process improvement initiative. However, various systematic process improvement methods have shown positive increases in use of effective interventions.45

Although effective interventions exist for the major causes of maternal death, in many contexts the best available, low-cost, high-impact interventions are not implemented well enough or widely enough. Governments and development partners should make effective interventions that address the most prevalent causes of death in the population available at scale by building on existing successful reproductive and maternal health services, taking into account cost-effectiveness and program effectiveness.

Intersectoral coordination is a critical element of country planning to address all causes of maternal mortality at each stage of the obstetric transition. Where MMR is very high, improvement in basic infrastructure including water and sanitation systems, roads and health care facilities, workforce planning, and education for girls are key areas for intersectoral linkages with maternal health program planning. As countries reduce MMR, there is a need to strengthen the recognition and management of indirect causes of maternal death, and coordinate with other relevant sectors and health providers to address care for non-communicable diseases, develop innovative education, screening and management approaches for these conditions, as well as appropriate clinical guidelines and protocols. Quality and

appropriateness of care remain important issues, however with a particular focus on avoiding over-medicalization and harms related to overuse of interventions.46

4. Strengthen health systems to respond to the needs and priorities of women and girls

Planning priorities

For health systems to respond to the priorities and the needs of women and girls, they must be seen as social institutions in addition to delivery systems for clinical care interventions, with the capacity to either marginalize people or enable them to exercise their rights. This complexity reflects the conceptualization of health systems as being made up of both “hardware and software”.47 The “hardware” of a health system represents the basic health system building blocks that include service delivery, health workforce, information, medical products and technologies, healthcare financing, and finally, leadership and governance, or stewardship.48 The “software” describes the human relationships, desires and values, roles and norms, power structure and meanings, both explicit and implicit, that actors and users assign to the health system. Health system strengthening must include both the hardware (such as ensuring the availability of essential commodities), and the software (including attention to organizational development and management, improving transparency and countering corruption, ensuring mechanisms for participation and prioritizing respectful care norms and values).

Systems thinking can help countries understand the constraints and areas of weakness within the health system, and to apply this understanding to design and evaluate interventions that improve health and health equity. Engaging all stakeholders is critical because in a complex adaptive system, “Every intervention, from the simplest to the most complex, has an effect on the overall system, and the overall system has an effect on every intervention.”49

Priorities include, in the area of service delivery, expanding health promotion and preventative services, and improving integration of all forms of care for women, newborns and adolescents. While much attention has been focused on increasing facility-based care, for a high-performing health system it is equally important to focus attention on community-based primary care and effective referral systems, ensuring seamless coordination across time, settings, and disciplines and between facilities.

To strengthen the healthcare workforce, governments must provide appropriate support, training and resources for healthcare providers in adequate numbers (midwives, doctors, and other skilled maternity care providers, including specialists), ensure supportive supervision, and explore task-shifting to improve access to high-quality care. Evidence suggests that 87% of essential maternal and newborn health care services can be provided by midwives, provided they are educated and regulated to international standards and work within well-equipped enabling environments.50 The health care workforce must be

prepared to provide the essential maternal and newborn care but also to recognize and manage any co-existing medical conditions, e.g. non-communicable diseases such as diabetes and heart disease. In the area of medical products and technologies, governments must ensure the availability of essential commodities and appropriate technologies, based on considerations of equity and cost-effectiveness.

In the area of health information, countries must develop a functioning and user-friendly health information system to assist in data collection, as well as communication and coordination between levels of care, and between providers and patients. The health information component is one of the most critical components of the health system because when it is strengthened, the “software” component of the health system is activated to contribute to improvement. For example, there is evidence that putting information from confidential inquiries into action at local levels by engaging local opinion leaders and strengthening the capacity of health professionals is associated with reduced MMR in health facilities.51

In the areas of leadership and governance, increased cooperation with other sectors (such as finance, education, energy, water and sanitation, nutrition, social services, mobile telecommunications technology, and private healthcare services) is needed to promote good reproductive and maternal health outcomes, and to realize the potential impact of healthcare financing mechanisms to strengthen the system. Transparent and accountable governance entails informed and constructive involvement of all relevant stakeholders in policy and programme development.

5. Ensure accountability to improve quality of care and equity

Planning priorities
Planning for accountability in the post-2015 maternal health strategy emphasizes two equally important dimensions: the improved ability to track and measure progress toward EPMM and to routinely report on it, and social accountability, which entails the inclusion of civil society actors in all aspects of monitoring and evaluation of maternal and newborn health care delivery so that health systems are directly accountable to the women and communities for whom they exist.

To track progress and ensure accountability for maternal health outcomes, governments must improve data availability and quality, with specific attention to strengthening civil registration systems that can provide reliable information on cause of death. Countries should build and strengthen national and sub-national data collection through routine periodic data collection and increased measurement capacity, informative monitoring and reporting. National data registries should collect data on the causes and conditions of every maternal death through confidential enquiries or MDSR, and cases of severe maternal morbidity through a near-miss reporting approach, to facilitate moving from estimating maternal mortality to counting deaths.

For effective social accountability, it is necessary to create participatory mechanisms at every level of the health system, across public and private sectors. Health systems should define and communicate clear roles, responsibilities and standards for civil society participation in accountability mechanisms,

supported by with transparent and equitable legal frameworks where appropriate. This helps ensure that services are responsive to community needs and demands, and that accountability mechanisms are transparent and inclusive.

**Conclusion**

The ultimate goal of the maternal health strategy for the post-2015 is ending all preventable maternal mortality. The strategy to achieve this goal is grounded in a human rights-based approach to sexual, reproductive, maternal and newborn health and rests on the foundation of implementation effectiveness, which is context-specific, systems-oriented, and people-centered.

It prioritizes equity, both in the selection of targets and the strategic framework to achieve them. Its guiding principles are empowering women and girls as well as communities; integrating maternal and newborn care, protecting and supporting the mother-baby relationship; prioritizing country ownership, leadership, and supportive legal, regulatory and financial frameworks and an intersectoral approach to improvement; and applying a human rights framework to ensure that high-quality reproductive, maternal, and newborn health care is available, accessible, and acceptable to all who need it. Crosscutting actions to reach the goal are to improve metrics, measurement systems and data quality; and to prioritize adequate resources and effective health care financing.

Five broad strategic objectives lay out a framework for countries to develop and implement interventions for EPMM. These are: to address inequities in access to and quality of sexual reproductive, maternal, and newborn healthcare services; to ensure universal health coverage for comprehensive reproductive, maternal and newborn healthcare; to address all causes of maternal mortality, reproductive and maternal morbidities, and related disabilities; to strengthen health systems to respond to the needs and priorities of women and girls; and to ensure accountability to improve quality of care and equity.

Seventeen years ago, in 1997 in Colombo, Sri Lanka, the Safe Motherhood Action Agenda called for ten priority actions for the next decade. A look back at those priority actions reveals many of them are woven through the maternal health strategy we propose for the post-2015 development agenda. Measurable progress has been made as a result of the global commitment to maternal and newborn survival embodied in the MDGs; at the same time, the number of deaths, the inequity in MMR both between and within countries, and the fact that 800 women continue to die each day from preventable causes, often uncounted so that their lives simply don’t count, is unacceptable and remains a global outrage that must be amended. It is everyone’s responsibility to make sure that maternal and newborn survival and health figure prominently in the sustainable development agenda, considering the critical role of women and the babies they bear in the development of future generations and communities. In 2030, let’s be able to stand and say that ending preventable maternal mortality occurred on our watch and as a result of our collective commitment and actions.
Annex 1: Goal-setting for EPMM: process and timeline

In January 2013, projections for ending preventable maternal death were made by The United Nations Children’s Fund (UNICEF), The World Health Organization (WHO) and the US Agency for International Development (USAID) and shared with partners. They were discussed at a consultation in April 2013 on Accelerating Reduction in Maternal Mortality convened by WHO that included technical experts, stakeholders from country programmes, professional associations, multilateral agencies, maternal health advocates and donors. Those discussions were highlighted in a commentary in August 2013 and a strategy paper that was drafted for a meeting of the African Union in August 2013. Building on the April 2013 discussions, an EPMM Working Group has since been working together, with various members hosting in-country and regional dialogues, webinars, a blog series, and other means to seek input and ideas from around the globe to move this agenda forward.

In April 2014, representatives from 34 countries, many challenged with high rates of maternal mortality, came together with global partners for a consensus meeting on targets and strategies for EPMM. The meeting was convened by WHO, the United Nations Population Fund (UNFPA), the US Agency for International Development (USAID), the Maternal Health Task Force (MHTF), and the Maternal and Child Health Integrated Program (MCHIP), with support from agencies and donors and input from the EPMM Working Group. A strong consensus was forged in support of targets and a broad strategic framework for moving toward ending all preventable maternal deaths.

Following the Bangkok consensus meeting, these targets and the broad strategic framework for their achievement have been circulated widely among country stakeholders and global development partners, and were brought forward by member states at the World Health Assembly in May 2014, where participating delegates petitioned for their inclusion in the resolution on the Every Newborn Action Plan (ENAP) which were subsequently included as an Annex to the ENAP.

54 Targets and strategies for ending preventable maternal mortality; consensus statement. WHO, 2014
Available at www.who.int/reproductivehealth/topics/maternal_perinatal/epmm