

# Discussion Paper

## A Social Determinants Approach to Maternal Health

Roles for Development Actors

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### Executive Summary

It has long been understood that health outcomes are profoundly shaped not just by biological factors but also by the social, economic and cultural environment, including people's positions in various social hierarchies. Increasing evidence suggests that it is possible to improve health outcomes through action on these social determinants of health. Still, consensus on priority actions and investments to address these social determinants remains elusive. This document contributes to the ongoing debate by considering maternal health and asking what has and can be done to improve maternal health outcomes through action on social determinants.

Maternal mortality is a key indicator for maternal health and reveals dramatic inequalities between and within countries that cannot be attributed to biological differences. Reducing maternal mortality relies on preventing unintended pregnancy through family planning and reproductive health. Skilled attendance at birth and emergency referrals are also required to reduce both maternal complications and resulting deaths. The characteristics of individual women like age, number of previous pregnancies, and education level play a role in determining whether they seek appropriate services, but the underlying factors influencing health behavior operate at inter-related levels of social influence: family and peers, the community in which women live and the health system available to them, wider cultural norms, the legal and policy environment and overarching governance structures.

Addressing each of these levels is necessary for a comprehensive social determinants approach to maternal health. Some existing interventions already target social determinants and provide evidence of impact. Peer counseling provides social support to individual women while cash transfers or participatory women's groups help address economic marginalization and build social capital at community level. Legal reforms can protect women from discrimination while policy changes can address harmful gender norms and expand women's and girls' access to education and economic independence. Many of these approaches occur outside the health sector, but provide complementary support to health systems approaches that work to increase coverage, reduce costs, and improve service access and quality.

The multiplicity of actors both within and outside the health system presents coordination challenges; yet, coordination is paramount to ensuring an effective response to maternal health. Lessons from several decades of HIV programs can show how seemingly disparate interventions can be brought together into a cohesive multi-sectoral response. There is significant expertise in implementing structural interventions to reduce HIV vulnerability, the principles of which can be applied to maternal health. Promoting democratic governance, participation by affected communities, coordinated action across health and development sectors and building a robust evidence base will enable a comprehensive response to maternal health. By leveraging their core competencies, actors from across health and development sectors can implement a social determinants approach to maternal health and ultimately make significant contributions to accelerated, sustainable progress on MDG 5.

## Introduction

In 2008, the WHO Commission on the Social Determinants of Health (“WHO Commission”) took important steps in raising awareness of how the conditions in which people are born, grow, live, work, and age shape global health challenges (Marmot et al., 2008). Greater attention is now being paid to ways in which individual-level risk factors for specific diseases are products of political choices and social organization that distribute power and resources unequally across populations, often along divisions of wealth, ethnic background, gender and other categories. Inequalities in people’s access to information, decision-making and life opportunities exist between and within countries, inequalities that are then reproduced in a wide range of health outcomes. The UN Development Programme’s (UNDP) ‘human development’ approach also focuses on why and how to challenge inequalities, which is why a variety of new inequality measures are now included in UNDP’s Human Development Index.

*“Through the first Human Development Report, a different approach to economics and development was called for, which would put people at its centre. That Report declared upfront that “people are the real wealth of nations”, and defined human development as a process of enlarging people’s choices and capabilities, including their political freedoms and human rights.”*

*- Helen Clark, UNDP Administrator, at the launch of the 2010 Human Development Report*

The fundamental rationale of the social determinants of health approach is not only that social determinants shape health outcomes but that it is possible to improve health outcomes and reduce health inequities by analyzing and acting on the most influential of those social determinants. This has important implications for how health programs are conceptualized and delivered. In the same way it no longer makes sense in an inter-connected world to consider health problems as limited to certain regions or countries, the social determinants paradigm underscores the need to look beyond sectoral borders in order to create synergies across health, development, and human rights communities. As part of this process, the World Conference on the Social Determinants of Health, held in Rio de Janeiro in October 2011, will bring together diverse actors from relevant disciplines to discuss, analyze and commit to addressing the root causes of preventable poor health.

This document contributes to these discussions through the lens of one particular global health challenge: maternal health. Maternal health provides a salient example of how adopting a social determinants approach can build synergies across development sectors to accelerate progress on a specific health issue. Furthermore, the epidemiology of maternal health demonstrates that maternal deaths remain unacceptably high despite some progress and that their distribution is deeply unequal across the world’s geographical regions and within individual countries. As these large differences cannot be explained by biological or behavioral risks alone, they must be due to social dynamics related to how societies are structured and governed. In other words, these social dynamics direct us to look beyond the health sector toward development and human rights strategies for solutions to maternal mortality and morbidity.

## INTRODUCTION

The time is right for raising these issues, since after a long period of neglect, maternal health is attracting significant attention, including through global initiatives such as the UN Secretary General's Global Strategy for Women and Children's Health (UN, 2010). Furthermore, improving maternal and reproductive health is firmly embedded as one of the Millennium Development Goals (MDGs), the world's shared, time-bound targets for development. Improving maternal and reproductive health is MDG 5, which has two globally agreed targets:



- (1) *Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio; and*
- (2) *Achieve, by 2015, universal access to reproductive health.*

MDG 5 itself is inextricably linked to several other MDGs, including MDG 1 (poverty eradication), MDG 3 (gender empowerment), MDG 4 (child health) and MDG 6 (HIV, malaria and other diseases). There is also increasing attention to the role of actors outside the health sector in contributing to maternal health outcomes, as described in the UNDP Guidance Note entitled "UNDP's role in Achieving MDG 5 – Improve Maternal Health" (UNDP, 2011). The recent resolution adopted by the Human Rights Council on addressing maternal mortality and morbidity through mainstreaming human rights will further contribute to rising political will for taking a rights-based development approach to the issue.

This document emphasizes the links between health, development and human rights approaches to maternal health. First, it gives a brief overview of the growing understanding of how observed inequalities in maternal health between and within countries reflect political and policy decisions rather than immutable differences. Next, it summarizes existing evidence on the social determinants of maternal health, presented through a conceptual framework adapted from one used by the WHO Com-

***“Over the past three decades, the HIV/AIDS epidemic has reminded us of the fundamental linkages between health and development more broadly. It has shown us that, to tackle this deadly virus and its impact, it takes both the best that science and medicine can offer and attention to the basic conditions which shape vulnerability – be they poverty, gender inequalities, or discrimination against marginalized groups.”***

*- Helen Clark, UNDP Administrator, August 2010*

mission to illustrate the broader ways in which social organization affects health. This is followed by a review of programmatic approaches used in different settings to tackle specific determinants of maternal health, both within and external to the health sector, with discussion of evidence for their effectiveness. Finally, strategies for bringing successful intervention components together into a multi-level and multi-pronged response to accelerate progress on MDG 5 are discussed, with examples drawn from the international response to HIV, which has extensive experience in addressing social drivers.

### Background: What are the inequities in maternal health?

The WHO Commission highlighted the links between social organization and health outcomes generally. The WHO Commission described the way that populations are stratified into social categories, usually based on economic status, race or ethnic background and gender, but also by other characteristics depending on context (e.g., job-related hierarchies, migration status, sexuality). Resources, power and access to opportunities are unequally and unfairly distributed across these social categories, creating social gradients that disadvantage people in lower social positions. This distribution is at the heart of inequitable health outcomes, and reflects social and economic policies at local, national and global levels (CSDH, 2008).

Addressing global inequities is the impetus behind the MDGs, but national-level inequities persist and require concerted efforts to ensure that progress toward universal health goals does not increase disparities within countries (Boerma et al., 2008). Understanding the social determinants of global health priorities is the first step toward addressing them. Not only does such an understanding identify entry points for action, it also shows that those entry points are *necessary* to achieve explicit health goals, including those that are MDGs. For example, accelerating progress on gender equality (MDG 3) does not just usefully contribute to maternal health (MDG 5), it is essential to sustainably improving maternal health.

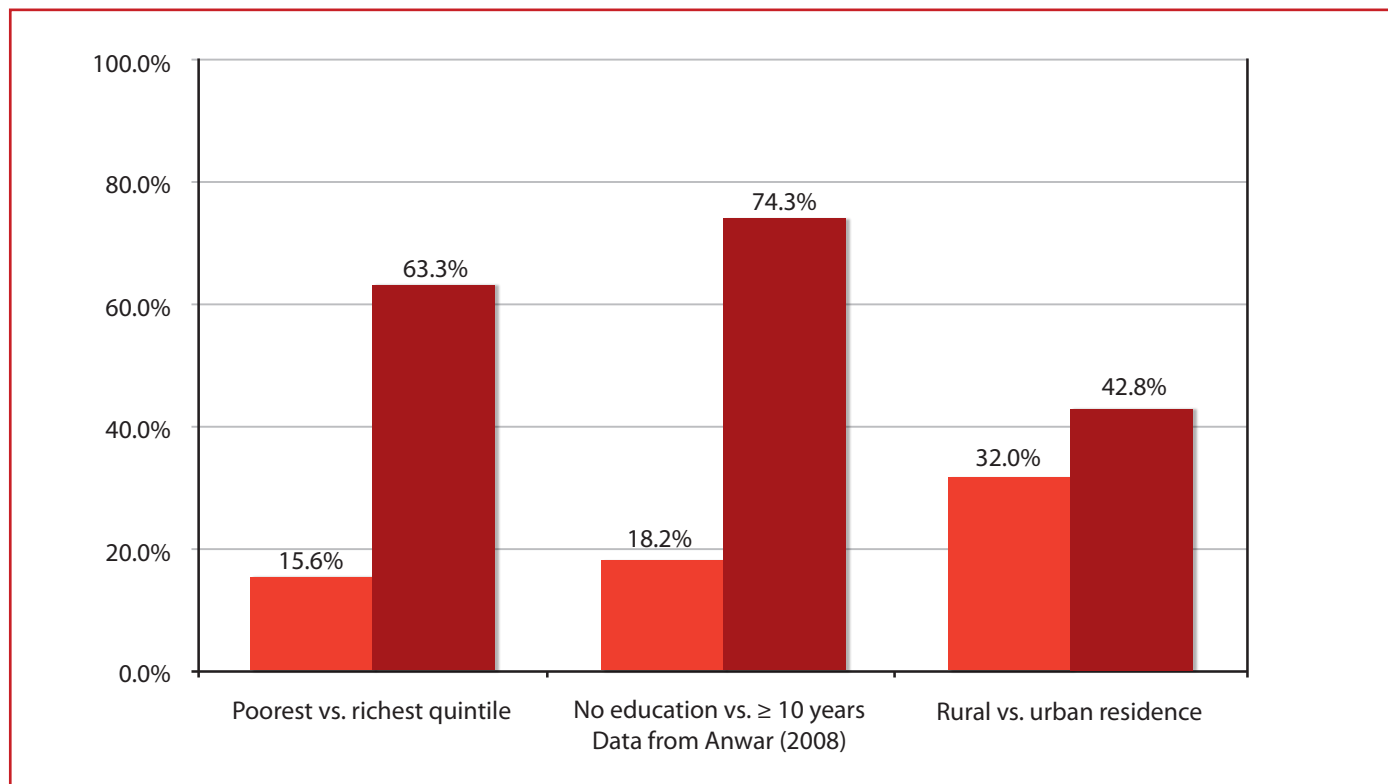
The vast disparities between regions and countries in maternal health have long been known. The most recent estimates show that in 2008, maternal mortality ratios ranged from 290 maternal deaths per 100,000 live births in developing countries to just 14 in industrialized settings (WHO, 2010). This represents a 1-in-31 lifetime chance that a 15-year old girl living in sub-Saharan Africa in 2008 would die of maternal causes compared to a 1-in-4300 chance in developed countries, a huge gap that can be masked by reference to the 34% decline in the number of annual maternal deaths since 1990 (WHO, 2010).

The fact that an estimated 385,000 women die each year during pregnancy, delivery and the postpartum period suggests inadequate overall progress toward reproductive health, including maternal health or MDG5 (WHO, 2010, Bryce et al., 2008, Ronsmans and Graham, 2006). Furthermore, there is a growing body of evidence showing how even within countries, maternal health outcomes are inequitably distributed, with the poorest likely to be most disadvantaged. In some settings, improvement in the national maternal mortality ratio (MMR) hides the existence of persistent internal inequities, some of which continue to increase even when aggregate trends improve (Houweling et al., 2007). There is growing interest, therefore, in comparing maternal health outcomes between communities with different social and economic development contexts.

The most common way to measure health inequities within countries is by using socio-economic data to divide the population into five equally-sized groups according to asset wealth or income, and then to compare specific outcomes or health behaviors in the lowest wealth quintile with the highest. Analyses from Demographic and Health Surveys (DHS) in developing countries have repeatedly found large gaps between the poorest and least-poor quintiles in maternal health coverage, particularly for skilled attendance at delivery, which is one of the MDG progress indicators (Boerma et al., 2008). A recent study assessed DHS data sets from 45 developing countries and found inequalities between the poor and wealthy for maternity care were larger than for other forms of health care; the gap between urban and rural populations was also considerable, and thus the rural poor fared the worst (Houweling et al., 2007).

## BACKGROUND

For instance, in a community survey of 2164 deliveries in Bangladesh, women in the wealthiest quintile were more than twice as likely to have a skilled birth attendant at delivery as those in the poorest, and over 1.5 times as likely to receive postnatal care (Anwar et al., 2008). Bangladesh has recently begun to decentralize its maternal health care, leading to an increase in skilled attendance provided for home births in addition to facility-based deliveries, and growing involvement of the private sector. While the former could improve coverage to poor households, the latter is likely to exclude them due to service charges. As Figure 1 shows, the combined effect seems to exacerbate inequities. In addition to the gap in service use between wealth quintiles, inequities were observed based on education and rural/urban residence.



**Figure 1:** Skilled Attendance at Delivery in Bangladesh

### **Box 1: India and MDG 5**

#### *Encouraging public-private partnerships to overcome economic obstacles to maternal health care*

Women in India often face devastating risks during pregnancy due to unsafe home births and inadequate access to quality healthcare. Unfortunately, in much of India, quality healthcare is associated with costs that place them out of reach for many of the country's poorer women. In this context, UNDP is supporting a creative public-private partnership to scale up LifeSpring Hospitals — a chain of small hospitals providing low-income women in India with access to maternal and child health services. Through this initiative, LifeSpring Hospital has committed to provide an estimated 82,000 Indian women and their families with access to quality healthcare — as part of a larger initiative called the Business Call to Action — a global leadership platform for companies to leverage their core business expertise to meet the MDGs.

## Evidence: What do we know about the social determinants of maternal health?

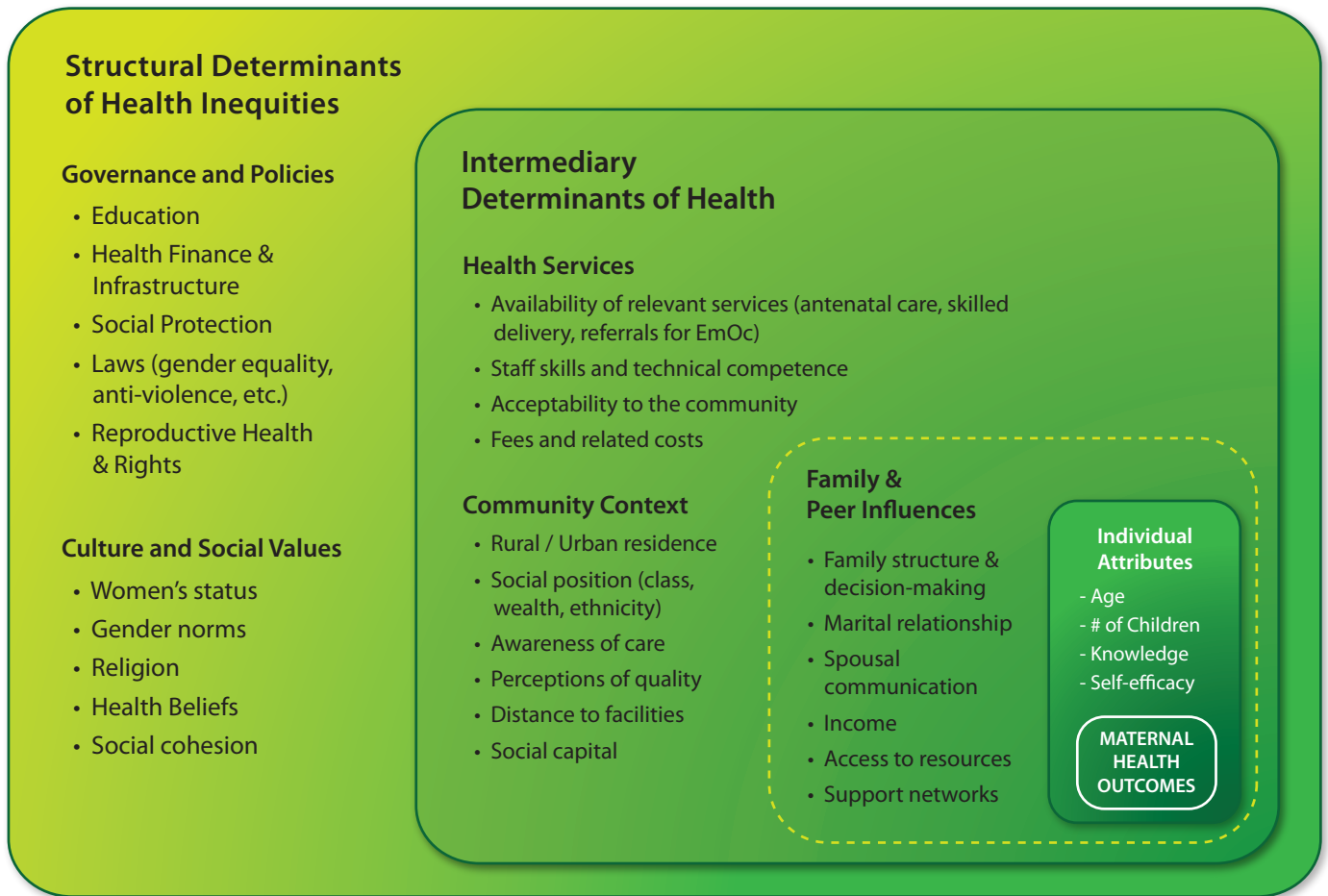
This section summarizes the literature on the determinants of maternal mortality and morbidity, drawing on the conceptual framework from the WHO Rio Conference Discussion Paper that illustrates how an individual's health can be influenced through multiple levels (WHO, 2011a).

The framework has been adapted to present determinants specific to maternal health, but maintains the relationship between *structural factors*, those that determine distribution of wealth, power and prestige across social groups, and *intermediary factors*, which establish the extent to which those groups are able to access health and social services for prevention and treatment and to adopt healthy lifestyles. At both structural and intermediary levels, there is a further separation between determinants shaped by formalized social structures and institutions (such as governments, their laws, policies, and the translation of policy into service delivery) and those dependent on social and cultural practices (traditional hierarchies, cultural norms and values, and community-level beliefs and practices).

The framework has the experiences of individual women at its center -- nested within their families and social networks -- since this is the level at which maternal deaths and morbidities are directly experienced. The core maternal health outcomes are: *maternal deaths* (a biological outcome measured as deaths to women during pregnancy and in the year following delivery, stillbirth, or abortion), and *skilled attendance at delivery* (a behavioral outcome most closely associated with maternal death, and referring to childbirth attended by a doctor, nurse, or trained midwife). These comprise the two indicators selected for measuring progress toward the target of MDG 5A on reducing maternal mortality. The other component of MDG 5, which makes up target 5B, relates to universal access to comprehensive reproductive health. Reproductive health, and the rights that produce it, are themselves key drivers of maternal health and therefore included in the conceptual framework within the structural determinants.

**Maternal Health Outcomes:** Of the estimated 385,000 *maternal deaths* that occur each year, the vast majority is considered to be preventable, caused by hemorrhage, hypertension, infection, obstructed labor and unsafe abortion. For example, in Sub-Saharan Africa and Asia, which together have both the largest number and greatest prevalence of maternal deaths, the main cause of maternal mortality is postpartum hemorrhage, accounting for over 30% of maternal deaths (Khan et al.).

Most maternal deaths occur during labor, delivery, and in the first couple of days after childbirth. This makes the *intrapartum* period (defined as labor, delivery, and the following 24 hours) a particularly critical time for recognizing and responding to obstetric complications and seeking emergency care to prevent maternal deaths. The best way to do so is to ensure all women receive skilled attendance at delivery from a doctor, nurse, or midwife. Delivering within a healthcare facility is the most ideal situation, as basic emergency care is likely to be available on site if required. Whether at home or in a facility, efficient and timely referral to higher levels of emergency obstetric care for complications is required, and all new mothers should be monitored in the first few days after the birth, with particular attention paid to possible signs of hemorrhage.



**Figure 2:** The Social Determinants of Maternal Health. Adapted from WHO (2011) Closing the Gap: Policy into Practice on Social Determinants of Health. Discussion Document for the World Conference on Social Determinants of Health. Geneva: World Health Organization: page 7.

To prevent women experiencing complications during pregnancy and delivery in the first place, however, requires reduction in unintended and high-risk pregnancies. Thus good safe motherhood programs need to be complemented by a wider continuum of care that starts with access to family planning, and back-up safe abortion services. Antenatal services, post-partum support, and treatment of co-morbidities such as nutritional deficiencies and HIV also comprise part of a comprehensive maternal health package (Campbell and Graham, 2006).

Many studies have focused on **individual attributes**, which are the characteristics of women found to be associated with specific health behaviors. There has been a lot of interest in what kinds of women are more or less likely to deliver in facilities or seek skilled attendance, as is recommended for *all* pregnant women given that obstetric emergencies have proved difficult to predict. A woman’s age, the number of children she has already had, her knowledge of services, and previous birthing experience can all influence pregnancy and delivery care (Say and Raine, 2007). For instance, younger women having their first baby may be more likely to seek medical care due to apprehension about a new experience; women who already have several children may choose to deliver at home, either because they view the birthing experience as a natural and healthy one that does not require intervention, or because they have domestic responsibilities that make it difficult for them to travel from



home. On the other hand, if a woman has had a previous facility-based delivery or experienced a complication, she is much more likely to try to obtain skilled attendance again.

A woman's level of education, and her specific knowledge about the importance of pregnancy and delivery care and awareness of where to receive them, also plays a role in uptake of services (Simkhada et al., 2008). Although education level and economic status often coincide, education has an independent effect on maternal health behavior. Numerous studies on the determinants of skilled attendance at delivery from contexts as diverse as Namibia, Kenya, Bangladesh and Tajikistan have identified a woman's level of education as a key predicting factor (Chowdhury et al., 2007, Fotso et al., 2009, Fan and Habibov, 2009, Zere et al., 2011). For example, in Namibia, women with post-secondary education were over twice as likely to deliver with a skilled attendant compared to those with no education, and seven times more likely to obtain a Caesarean section (Zere et al., 2010). The close association between education and use of maternal health services partly results from the fact that formal schooling exposes women to information about reproductive health and pregnancy care. Education also enhances women's self-efficacy (confidence in taking independent choices) and has been associated with other important precursors of safe motherhood, such as use of contraception, more equitable marital relationships, and greater economic independence, once again illustrating the close link between biological and social explanations (Grown et al., 2005, Santow, 1995).

**Family and Peer Influences:** Much of the research demonstrating links between individual attributes and health behaviors shows that family members also influence pregnant women's choices; it can be difficult to distinguish between women's personal preferences and responses to other people's expectations or restrictions – or, for that matter, legal and policy restrictions on a woman's freedom of movement or autonomy in health care decision-making. Normative gender dynamics, for instance, are played out at household level, and can lead to individual women having little control over their own fertility and health care choices. Newly married young women may become pregnant earlier than they would like in order to prove their fertility, or have multiple and closely-spaced pregnancies until they produce a son where preference for male children is strong. Younger women may also lack power in the household for insisting on their own wishes regarding care during pregnancy and childbirth.

Relationships with male partners are an important part of how a family structure can affect women's health. The level of a husband's education is also a determinant of skilled attendance at birth, indicating that women might need to seek a husband's/partner's permission or approval before taking decisions related to care (Gabrysch and Campbell, 2009, Paul and Rumsey, 2002). Research from the field of HIV has identified spousal communication and partners' levels of support as associated with use of services for the prevention of mother-to-child transmission, including facility-based deliveries (Auvinen et al., 2010, Farquhar et al., 2004). Good communication with partners has also been found to be significantly associated with use of modern contraception (Yue et al., 2010), as has the perception that the partner approves of contraceptive use (Stephenson et al., 2008).

In cases where a male partner is abusive and physically or sexually violent, women are at direct risk of maternal mortality or morbidity. Instances of violence during pregnancy can contribute to miscarriage, stillbirths, and premature rupture of membranes (Stöckl et al., 2011). Furthermore, fear of violence reduces the likelihood that a woman will initiate communication with her partner or negotiate sexual and reproductive decisions, further putting her at risk for unintended pregnancies and sexually transmitted infections, including HIV, which also contribute to poor reproductive and maternal health outcomes (Ellsberg et al., 2008, Garcia-Moreno and Watts, 2000, Jewkes, 2002).

In addition to male partners, other senior family members can wield influence (Falnes et al., 2011) and may be the ones to decide at what point in an obstetric emergency additional care should be sought. In East Timor, for example, grandmothers and mothers-in-law played a key role in deciding whether or not women should deliver in hospital, although interestingly, older women were often the ones most likely to insist on a facility-based delivery, even when the woman herself would have opted for a home birth (Wild et al., 2010). Studies among nomadic pastoralists in Chad show how the absence of male kin during seasonal migration and reluctance of others to take important decisions can cause significant delays in women reaching a medical facility in the case of complications (Hampshire, 2002). Even before an emergency, women may not have freedom of movement or access to financial resources of their own, and thus are unable to obtain care even if they take the decision to do so.

Finally, the income of the family itself may affect maternal health outcomes. A family with low income may be constrained in being able to pay for health service fees, transport to facilities, or health-related resources that incur additional expense (e.g., nutritious food, contraceptive supplies or condoms, some biomedical tests). While social support networks can alleviate barriers related to poverty, families without local networks of support may not be able to request assistance from others, i.e. to arrange transport to facilities or borrow money for fees and other out-of-pocket costs. Where individuals and families have strong and reciprocal links to other community members, they are much more likely to share knowledge on availability and quality of services and to rely on each other for practical and emotional help (Su et al., 2007, Kincaid, 2000).

**Community Context:** Individual women and their families live in communities, which vary in important social ways. One important difference is place of residence; urban households use maternal health services significantly more than rural communities do. This is partly due to distance to facilities, one of the most intractable barriers to skilled attendance at delivery, particularly where transport is either expensive or unavailable. Indeed, once important variables that occur at community level are taken into account, such as distance to the nearest facility and its costs, individual-level attributes contribute little variation in health-seeking behavior (Magadi et al., 2000).

Service providers sometimes discriminate against members of marginalized communities due to their ethnic background, class status, or social exclusion. In some cases, providers may be from a different background, and do not speak the language of their patients or do not show respect for their preferences (such as being accompanied into the delivery room by a traditional healer, or taboos about women being examined by male health staff) (Dubale and Mariam, 2007). This can determine a community's perceptions of service quality and satisfaction with received care; clients of reproductive health services are particularly sensitive to how well providers build rapport and engage interpersonally with their clients (RamaRao and Mohanam, 2003). Unsurprisingly, where marginalized populations experience ethnic discrimination or receive poorer quality care, they are likely to reduce their use of those services (Gabrysch and Campbell, 2009). Communities with high levels of social capital, where material and psychosocial resources are shared by members who work together to address their problems collectively, are more likely to challenge their marginalization (Poortinga, 2006).

**Health Services:** Effective health services should address reproductive and maternal health along a continuum. They need to prevent unintended pregnancies, provide antenatal care, treat underlying conditions, maximize facility-based deliveries or skilled attendance at home births, refer women to emergency care in the case of complications, and monitor postpartum

mothers. The continuum then comes full circle, with support given to women following the birth of a child for timely adoption of contraception to prevent another pregnancy before she is physically and emotionally prepared. Back-up safe abortion services are required for cases of unintended pregnancy. This continuum of services should adhere to the “3AQ” criteria for rights to health, wherein health care is accessible, affordable, acceptable, and of high quality.<sup>1</sup>

In reality, most services fall far from this ideal. Not only are services sometimes not physically available, or do not provide an appropriate constellation of services, they may provide limited social access (acceptability to the community) and economic access (affordability). Maternal health care costs families an average of 1-5% of annual household income, which can rise dramatically in the case of complications and push the family into poverty (Richard et al., 2010).

The quality of staff and services is also critical; technical quality depends on adequate staffing and equipment, and correct use of clinical protocols. Technical quality can also influence use of services, and is also inequitably allocated. Caste, wealth quintile, and urban or rural residence were all found to be associated with quality of antenatal services received by different groups in India (Rani et al., 2008). A 1990 study in Ethiopia found that improvements in technical quality of services did slightly increase demand for their use, although transport costs and indirect costs (e.g. removing key family members from planting or harvest activities) remained the main barriers (Kloos, 1990).

**Governance and Policies:** National legal and policy environments can enable or constrain good maternal health through the introduction and enforcement of laws, policies and the administration of justice. Within the health sector, inadequate prioritization of women’s health or lack of funding for the health infrastructure more generally, result in weak systems that are unable to deliver comprehensive prevention and treatment. Not enough skilled providers are trained, deployed, or retained, particularly in remote or rural areas. This is often as a result of poor supervision, management, remuneration, and monitoring throughout health policies, and may also reflect unfair distribution of scarce resources at political level.

Yet beyond the health sector, other factors impede women’s ability to achieve the best possible reproductive and maternal health. The wider legal and policy environment in which women live determines their life chances in numerous overlapping and mutually enforcing ways, including those identified on the pathways to safe motherhood. These include laws and policies on gender equality that determine women’s access to education, livelihood opportunities, and the right to own and inherit property. These contribute to women’s higher status and greater power in society, reducing the chances that they will engage in unintended sexual activity or childbearing.

Broader commitments to women’s rights include prohibition of early marriage (before age 18) and forced marriages, and legal protections for the right to bodily integrity and security through laws against marital rape, sexual and physical violence, and female genital cutting. Laws that ensure girls and women are protected from sexual violence and forced sex can reduce exposure to sexually transmitted infections, including HIV, unintended pregnancy, and psychosocial distress, which are risk factors for poor maternal health outcomes. More directly, laws can limit or expand access to family planning or safe abortion, which are proximate determinants of maternal morbidity and mortality.

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<sup>1</sup> as set out in General Comment 14 to the International Covenant on Economic, Social and Cultural Rights.

The introduction of legal protections will not in itself be sufficient for effecting change, and will need to be properly and appropriately enforced, backed up by recourse to the judiciary. New laws can set important standards and norms of behavior by legislating what is considered acceptable or not (Burris et al., 2010), but if these go against prevailing social values and beliefs, there may be resistance to complying with them (Beske, 2009, Kilonzo et al., 2009). For example, efforts to eradicate female genital cutting in Ghana have been ineffective largely because social change did not accompany policy change (Aberese Ako and Akweongo, 2009).

At public policy and financing level, social protection mechanisms and national health insurance schemes that target marginalized populations help to ensure that no one gets left behind. If health systems develop organically without government oversight, they can favor urban settlements over remote rural areas; in particular, staff recruitment, training and retention policies determine equity of health coverage. Political systems that integrate pro-poor and redistributive approaches can increase social cohesion, which is associated with more engaged communities that demand their social and economic rights, while those that favor some groups over others may be more likely to foment conflict, competition for scarce resources, and political apathy (Egan et al., 2008).

**Culture and Social Values** also shape human interactions and determine position within social hierarchies based on income, ethnicity, gender, and other context-specific social divisions (occupation, class, religion, sexual orientation, or disability) (Abel, 2008). These are values that prevail in whole countries or regions, and extend beyond any given community. In some cases, prevailing social norms or religious beliefs can be in opposition to the cultural traditions of minority groups within the country, which can also cause tension and social exclusion.

While cultural and religious values (“traditions”) often provide material and psychosocial support to people through access to social capital and networks, some beliefs and practices maintain pressure on women and girls to drop out of school, marry young, initiate childbearing soon after marriage, or have numerous and closely-spaced pregnancies to add status to the family or ensure a male heir. The introduction of new stressors to a community can serve as immediate drivers or reinforcements of these social roles for women and girls. In AIDS affected households, for example, girls are taken out of school to care for sick family members. Certain interpretation of religious teachings can oppose reproductive rights and discourage the use of family planning, or maintain harmful practices, such as female genital cutting. In any case, culture is fluid, amenable to change, and rarely homogeneous even among groups who consider themselves to share the same culture.

The status of women in society is a particularly important social determinant of maternal health. The level of women’s empowerment determines access to education, economic self-sufficiency, and autonomy in daily life and decision-making, all of which affect women’s ability to achieve their rights and make healthy choices, including when and with whom to have sex, use of modern methods of contraception, and use of health services during pregnancy and delivery. While these are important human rights, they also translate directly into positive health outcomes. Where women have access to their own livelihood opportunities, they are also more likely to be self-sufficient and able to take decision that will protect themselves and their families. Financial independence provides women with an important means of social protection, and access to an income becomes a resource on which women can draw, and can also raise women’s status within their families and communities. There

is empirical evidence that earning potential is associated with uptake of health services, such as in Bangladesh, where women with employment were almost 5 times more likely to have a doctor, nurse, or midwife present at their delivery than those without (Rahman et al., 2008).

The way gender is constructed for men is also important, and cultural understandings of masculinity shape how men are expected to behave. In the same way that social norms often restrict female sexuality and encourage girls and women to remain passive, sexually naïve, and unable to initiate negotiation about the use of contraception or other prevention methods, men are encouraged to take risks, be sexually experienced with many partners, and to prioritize their pleasure over concerns for their health (Courtenay, 2000, Rao Gupta, 2002). Gender norms often discourage men from seeking health care related to their own sexual and reproductive needs, which undermines male health and in turn can undermine the health of their female partners as well, for example through the transmission of sexually transmitted infections. Gender based violence may be tolerated, or in some settings where there are high rates of violence overall, accepted as a way for men to assert their control in relationships (Jewkes et al., 2003). A focus on gender, rather than just on women's empowerment, encourages programs and policies that transform the attitudes and interactions of both men and women toward each other (Dudgeon and Inhorn, 2004, Grown et al., 2005).

The rest of this document will review available evidence on approaches that have been tried in different settings to improve maternal health outcomes, in the process identifying components that appear to have been successful and could usefully be incorporated into a social determinants strategy.

### Action: What approaches work?

There is widespread agreement on best practices in reproductive health, pregnancy, and delivery care (Campbell and Graham, 2006, McCoy et al., 2010). These can be summarized as interventions that prevent pregnancy, prevent pregnancy-related complications, and prevent maternal deaths during complications (Fortney and Leong, 2009). While these three primary ingredients of successful maternal health packages may not be in question, how to deliver them to maximize widespread and equitable coverage is far less straightforward.

Table 1 summarizes the basic tenets of care that should be provided through the health system across the maternal health continuum. The interventions listed in the table would help eradicate much of the maternal health burden, but in order to deliver them effectively, innovative combinations need to be developed and further buttressed by social and economic strategies. Law and policy plays an important, complementary role to these proximal interventions and are discussed later. Effective advocacy is also critical to the delivery mechanisms of many of the health interventions.

<b>Intervention</b>	<b>Health Outcome</b>	<b>Delivery Mechanisms</b>	<b>Continuum Phase</b>
<b><i>Comprehensive reproductive health (including family planning &amp; safe abortion)</i></b>	Reduction of MMR through decrease in unintended pregnancy & complications of unsafe abortion.	Mass Media/Social Marketing Community based promotion Health extension workers Community health volunteers Medical facilities (for surgical contraception and abortion)	Pre-conception
<b><i>Birth planning</i></b>	Reduction of MMR by increasing skilled attendance/delivery in facilities	Community based promotion Community health volunteers Maternity waiting homes Community mobilization	Antenatal
<b><i>Antenatal Care (Malaria prophylaxis, screening, food supplementation, vaccinations, treatment of existing conditions i.e. HIV, TB)</i></b>	Reduction of maternal morbidity by reducing associated risks of and anticipating complications at delivery.	Community based promotion Health extension workers Community health volunteers Medical facilities (for Syphilis screening and immunisation)	Antenatal
<b><i>Treatment of pregnant women with complications</i></b>	Reduction of MMR, stillbirth and neonatal mortality through prevention and treatment of sepsis	Health extension workers Medical facilities (primary level)	Antenatal/ Intrapartum

## ACTION: WHAT APPROACHES WORK?

Intervention	Health Outcome	Delivery Mechanisms	Continuum Phase
<b>Skilled attendance at delivery (Clean delivery kits, management of obstetric complication, referrals &amp; transport in an obstetric emergency)</b>	Reduction of MMR	Community-based trained attendants can use kits and recognize emergencies, but facility-based deliveries are best, with referrals to tertiary care for hemorrhage and Caesarean sections.	Intrapartum
<b>Emergency obstetric care</b>	Reduction of MMR	Higher levels of care for comprehensive emergency treatment. Hospital required for Caesarean sections, hysterectomies, and blood transfusions.	Intrapartum
<b>Detection of postnatal sequelae (bleeding, sepsis, trauma, depression)</b>	Reduction of MMR and maternal morbidity	Community health volunteers Health extension workers Community mobilization Medical facilities	Postpartum
<b>Introduction of contraception</b>	Prevention of unintended pregnancy following previous birth	Mass Media/Social Marketing Community based promotion Health extension workers Community health volunteers Medical facilities	Postpartum and beyond

**Table 1:** Maternal Health Interventions across the Childbirth Continuum

**Source:** Adapted from McCoy et al (2010) page 89 and Campbell & Graham (2006).

One of the most discussed bottlenecks to reducing maternal mortality is the lack of strong and well-functioning health systems, many of which are woefully ill prepared for achieving MDG 5 (Boerma et al., 2008). This will require additional investments in some settings, and deployment of additional skilled providers in remote areas. However, countries like Namibia have demonstrated that even with significant financial outlays in the health sector, maternal mortality ratios can increase nonetheless if the new resources are not equitably distributed and wider root causes are not adequately addressed (Zere et al., 2010). By comparison, Brazil reduced maternal mortality by an annual average of 4% in the 10 years up to 2008 (Victora et al., 2011). While this was partly due to improving the functioning of its health system, other social trends and programs unrelated to health were probably more influential.

Interventions targeting each level of the social determinants framework need to work together to achieve MDG5. This section will present approaches to improving maternal health that act on its intermediary and structural determinants, providing a brief description of each, and evidence for its effectiveness. The focus will be on interventions implemented outside health facilities that work to improve community-level demand for and use of appropriate care, as well as on broader social strategies to create an enabling environment in which communities are empowered to demand and access the necessary services.

## **ACTION: WHAT APPROACHES WORK?**

### ***Targeted Interventions: Approaches Aimed at Individuals, Families and Peer Groups***

At individual and family levels, behavioral change can be facilitated by improving women's and their families' awareness of potential obstetric and neonatal risk, increasing their knowledge of good pregnancy and delivery care, equipping them with the skills to take health-enhancing decisions, and building self-efficacy for requesting assistance from other community members or local health authorities (Morrison et al., 2010). Diffusion of new knowledge and awareness can be facilitated by media messages, outreach workers, or community members themselves. Family planning programs have successfully used media campaigns and social marketing for many years, and these are also approaches conducive to promoting birth preparedness, facility-based delivery, and uptake of antenatal and postpartum care. Drama series and soap operas aired on television or radio also influence public awareness of social and health issues and can convey nuanced messages regarding the inter-relationships between family size, women's status, and maternal health outcomes.

At the intrapersonal level, peer counseling is an approach that works to build social support and self-efficacy among women. Peer counseling programs usually train female community members to visit pregnant women and new mothers in their homes, provide practical and psychosocial assistance, and to encourage specific forms of health behavior. Systematic reviews of peer counseling programs have demonstrated that they are effective in increasing uptake of facility-based delivery, PMTCT, and exclusive breastfeeding (Chapman et al., 2010, Haider et al., 2000, Rotheram-Borus et al., 2011).

Attempts to involve men in pregnancy and delivery care have also had some success. Much of the evidence on engaging male partners comes from the literature on HIV, particularly efforts to increase coverage of PMTCT. Providing counseling to couples together and inviting men to accompany their partners to antenatal services has been shown to reduce male resistance to health service use, to increase their support of women during pregnancy, and to increase condom use among serodiscordant couples (Betancourt et al., 2010, Farquhar et al., 2004). Reducing HIV transmission directly contributes to decreasing maternal mortality rates.

### ***Community Based Approaches***

A wide diversity of community-based strategies has been employed to facilitate service use at this level. One of the most intractable barriers to appropriate health-seeking behavior during pregnancy and childbirth is distance to facilities, particularly for rural populations in remote areas, or poorer families who lack access to transport. The use of outreach services to reach people in their homes reduces physical barriers, but also may promote greater maternal health awareness among households that have not previously been exposed to these messages.

Some models of outreach services are part of the public health system, such as the use of trained health extension workers (HEW), sometimes referred to as Community Health Workers (CHW) or Lay Health Workers (LHW). Since 2004, Ethiopia has deployed a cadre of female HEW at district health posts throughout the country, aiming to accelerate expansion of primary health care. HEW are recruited from their own communities, receive one year of training, and then provide basic disease prevention, hygiene information, family planning service, health education and communication. Some offer HIV prevention and treatment, and have been trained in a Home Based Life Saving Skills curriculum for attending deliveries (Celletti et al., 2010, Sibley et al., 2001, Sibley et al., 2006). Although the scope of the Health Service Extension Program is impressive, inequitable use of maternal health services persist, disadvantaging the poor, less educated, rural populations, and particularly marginalized communities such as nomadic



## ACTION: WHAT APPROACHES WORK?

pastoralists (Dubale and Mariam, 2007, Wirth et al., 2008). This suggests that scaling up efforts targeting communities need long-term commitments at higher political levels, and coordinated pro-poor policies across sectors (Rasschaert et al., 2011).

The use of community health volunteers (CHV) for health promotion is receiving increased attention as task-shifting rises on the international health agenda. Volunteers recruited from their own communities are trained to deliver primary health care, including family planning, promotion of breastfeeding, and basic sanitation. Because CHV are usually well-respected community members, their support for specific behaviors or norms can carry more weight than the ideas of outsiders. CHV can model new behaviors, and contribute to community mobilization by participating in and facilitating group discussions and interactive activities. This approach harnesses local political leadership and indigenous means of health promotion and behavior change.

There is a growing body of literature in support of organizing women's groups and using structured participatory approaches to assist communities in identifying their problems and working together to share information, discuss options, and develop locally-based solutions (Nair et al., 2010). These interventions have now been rigorously evaluated throughout South and Southeast Asia, and demonstrate significant effects on health-seeking behavior, health practices and maternal and neonatal health outcomes (Manandhar et al., 2004, Tripathy et al., 2010, Lee et al., 2009). An ongoing cluster randomized trial is underway in Malawi and will help determine the applicability and adaptability of this approach for sub-Saharan African contexts (Lewycka et al., 2010).

Organized women's groups are the primary focus of these community mobilization interventions, and work by building awareness, women's confidence and assertiveness, and community capacity to plan locally feasible action (Morrison et al., 2010). Additional activities with community leaders, decision-makers and other members help ensure feasibility and sustainability of any practical solutions identified (such as a revolving savings funds to cover transport and treatment costs in an emergency, or shared transport arrangements made to bring pregnant women closer to facilities). Community groups undertake an analytical cycle that includes (1) problem identification and prioritization (2) strategic planning (3) strategy implementation and (4) impact assessment (Rath et al., 2010). Success of the approach seems to depend on the ratio of community women who participate in the groups and the number of pregnant women in them; an analysis of the lack of significant change in mortality outcomes in an intervention trial in Bangladesh concluded that inadequate coverage and intensity limited its success (Kishwar et al., 2010).

### ***Box 2: The power of social capital to improve maternal health – a case study in Nepal***

The use of participatory women's groups in Nepal was evaluated in a randomized control trial conducted in 42 villages. By introducing community mobilization approaches, the intervention aimed to build social capital that would provide collective resources for individuals to draw on during pregnancy and delivery, and to engage community members in identifying, prioritizing and overcoming local barriers to safe delivery for themselves. Pregnant women enrolled in groups that met monthly for facilitated, interactive sessions, and came up with a range of activities including community funds to pay for transport or care, schemes to provide stretchers to women requiring emergency access to facilities, the distribution of safe delivery kits, and promotion of the importance of safe childbirth within the community. Over the study period, there was a 78% reduction in maternal deaths between intervention and control villages. If this reduction were scaled up to national level, it would represent a decrease in MMR from 341 to 69 deaths per 100,000 live births (Manandhar et al., 2004).

## ACTION: WHAT APPROACHES WORK?

The concept of “birth preparedness” – where pregnant women, their families, and the wider community are encouraged to anticipate potential complications and develop strategies for transporting women to medical facilities prior to or at the onset of labor – is highly conducive to community mobilization interventions. Participatory group sessions can explicitly address the importance of skilled attendance at delivery and facilitate discussion on implementation. A birth preparedness program in Cambodia used a multi-pronged approach to encourage village leaders, local midwives, and community volunteers to raise birth preparedness at meetings and group events, and increased antenatal care by 22%, delivery in the presence of a midwife by 33% and hospital referral by 281% over one year (Skinner and Rathavy, 2009).

Finally, where economic barriers present a key bottleneck to service use for the poor, voucher schemes and cash transfers can help to overcome them. In Bangladesh, an intervention study compared communities in which pregnant women were given vouchers that could be used as payment in local health facilities to control sites. Overall, the voucher scheme doubled uptake of antenatal care, and increased skilled attendance by 3.6 times and prevalence of delivery within a facility by 2.5 times. Poor women’s behavior was particularly influenced by the availability of the vouchers, and when the lowest economic groups were compared, voucher recipients were over 4 times more likely to deliver in a health facility than women in control villages (Ahmed and Khan, 2011).

Conditional cash transfers work in a similar way, but are able to address indirect costs of health care as well as fees. Eligible women are provided with cash payment if they deliver in a health facility, or seek antenatal care. There have been notable successes of such schemes in Latin America, although there is less evidence of effectiveness from African and Asian settings (Lagarde et al., 2007, Powell-Jackson et al., 2009). Conditions unrelated to health can also be applied to cash transfers, to address women’s empowerment. For example, conditional cash transfers have been provided to families to encourage girls to stay in school and to attend regularly. This has multiple and long-term benefits through improving female education, reducing sexual risk behavior, delaying marriage and childbearing and improving poor women’s livelihood opportunities (Adato and Bassett, 2009, Padian et al., 2011).

Unconditional cash transfers, which are provided without restrictions, have been given to HIV-affected households and orphans, who often are at higher risk of sexual abuse and coercive or transactional sex (Bryant, 2009, Birdthistle et al., 2010, Birdthistle et al., 2008). In Kenya, a national cash transfer program provides payments to poor families of orphans and vulnerable children that can be used for food, clothing, school supplies, and health and education fees. Anecdotal evidence suggested the payments improved families’ ability to afford basic needs, cope with the pressures of having family members living with HIV in the household, and purchase ART medicines in the time prior to free provision; on the other hand, targeting the poorest households in communities was difficult to implement and up roughly 75% of recipient families were not from the poorest quintile in the community (Bryant, 2009).

### **Structural Interventions**

It is at the structural level of determinants that an enabling environment for addressing the most “upstream” determinants of poor maternal health can be created. Through targeted laws and policies, and the promotion of positive norms and values, the social, economic, and cultural barriers that prevent people from being able to make health-enhancing decisions can be eroded. It is much more difficult to evaluate approaches that change structural factors, since often there can be a long time period between implementation of new laws and policies and change at individual health level, because the pathways are not always linear and direct, and because structural interventions often generate multiple benefits across the public health, development and human rights spectrum. However, studies that use longitudinal observation, policy analysis, and compare multiple datasets across countries provide a growing body of evidence.

## ACTION: WHAT APPROACHES WORK?

### **Health Policy**

First, adequate investment in health as a governmental priority is a prerequisite to ensuring widespread coverage of interventions that prevent pregnancy, its complications, and resulting deaths. Yet fewer than 10% of Countdown to MDG 4 & 5 priority countries are meeting the goal of spending 15% of their budget on health, as set by the Abuja Declaration in 2001 (Cavagnero et al., 2008).

Second, health spending needs to be directed into programs that are known to be effective, through mechanisms that reach the most neglected populations. A systematic review of maternal health programs found that implementation of evidence-based interventions was associated with the amount of national resources allocated to the issue, but also with leadership skills and the development of health facility accountability, community based financing systems, and efforts to facilitate service use by remote and rural areas (Nyamtema et al., 2011).

A positive example comes from Thailand, which has demonstrated particular success in health system investment, with particular attention to improvements in district and sub-district level public sector primary health care delivery (Kongsri et al., 2011). The government channeled benefits from a long period of economic growth into health policies that expanded infrastructure into remote areas, and protected the rural poor from rising costs through public insurance schemes. Household surveys show high levels of reproductive and maternal health coverage. Family planning is used by 79.6% of the population, and there is almost universal use of antenatal care (98.9%) and skilled birth attendance (99.7%). There are almost no differences by socio-economic status, educational achievement, or residence in rural or urban areas.

### **Social and Economic Policy**

While health expenditure is important, it may not be enough to reduce gaps between the poor and wealthy. Specific measures to reduce economic inequities can be put into place both within and beyond the health sector. Governments that have taken a redistributive approach in public policy, where efforts are made to explicitly target the poorest members of society, have demonstrated improvements in aggregate levels of skilled attendance at delivery (Kruk et al., 2008). A review of data from 45 developing countries compared the wealthiest quintiles with the poorest, using education attainment as an indicator for pro-poor policies. The proportion of live births in a country attended by a doctor, nurse, or midwife was closely associated with the proportion of women in the country who completed at least five years of education. While per capita investment in health also improved access to skilled delivery, the relationship between delivery care and equitable distribution of education remained significant when overall health spending was taken into account, leading the authors to conclude: *"...as countries spend more on health, the use of skilled birth attendants rises across [all] wealth quintiles. However, the poorest groups only accrue substantial benefits when the policy environment favours distribution."* (Kruk, 2008: 145).

Addressing women's legal status, inequitable gender norms and gender inequality are among the most important structural approaches for addressing maternal health. In particular, the first strategy for reducing maternal mortality, that of preventing pregnancy, not only requires provision of family planning and reproductive health care, but also relies on removing pressures on women to initiate childbearing earlier than is healthy or than they would wish. Legislating against early or forced marriage, removing restrictions on the provision of contraception to some groups of woman (based on age and marital status), enabling girls to stay in school, and taking legal action against perpetrators of gender based violence will all contribute to women's realization of

## ACTION: WHAT APPROACHES WORK?

their basic human rights and give them greater control over reproductive and sexual decisions (Rani and Lule, 2004, Gable et al., 2008, Germain, 2004). In India, laws against early marriage have proved insufficient to eradicate the practice, but with introduction of simultaneous efforts to increase household wealth, expand education and employment opportunities for women, extend family planning programs into rural, more traditional communities, and modify cultural norms, the rate of marriage among girls younger than 18 appears to be slowly decreasing, although it is still high at 50% (Raj et al., 2009). Lack of access to safe abortion services also remains a serious bottleneck to the achievement of universal reproductive health, and recent estimates suggest that 47,000 maternal deaths each year result from unsafe procedures; this represents 13% of all maternal mortality (WHO, 2011b).

### **Governance**

International human rights frameworks have introduced a range of new protections into country legislatures, but restrictive laws on sexuality that reflect moral judgments rather than evidence remain (Gruskin and Ferguson, 2009). Coordinated policies across Ministries (for example, Health, Education, Women and Children's Affairs, Justice, and Labor) can create conditions in which girls and women feel able to gain skills, find employment, regulate their family and sexual lives, and seek redress for violations of their human rights. Following the International Conference on Population and Development 1994, cross-party parliamentary groups on population, development and reproductive health were established in over 100 countries to help streamline implementation of its Program of Action. This is one approach to try to align national laws with internationally agreed standards and bring together political actors from across ministerial disciplines to accelerate coordinated efforts (McCafferty, 2009). Ideological opposition remains one of the main constraints to adoption of policies that ensure women's reproductive rights, and therefore providing politicians with accurate information and raising awareness of the links between reproductive and sexual rights and maternal health outcomes might contribute to reform of restrictive legislative frameworks.

### **Box 3: Structural Approaches to Reducing Maternal Mortality: The case of Bangladesh**

Between 1976 and 2005, the maternal mortality rate in Matlab district, Bangladesh, fell by 68% from 412 to 130 deaths per 100,000 births. A case study was undertaken to understand this dramatic improvement, analyzing data from household surveys conducted over this time period, with a focus on social and economic indicators. Over the 30-year period, there was significant economic development in the country as well as introduction of microcredit livelihood schemes for women, and the proportion of pregnant women who were classified as poor fell from 34% to 1%. At the same time, education for girls increased, so that by 2005 just 27% women had no formal schooling, down from 69%. Family planning received intensive promotion beginning in the late 1970s, and the total fertility rate decreased from 4.5 children per woman to fewer than 3. Although uptake of delivery care remained low, provision of legal abortion through menstrual regulation reduced deaths attributed to abortion. Overall, multivariate analysis suggests that the district's steep decline in maternal mortality was primarily due to uptake of family planning and safe abortion. As this accelerated over time, the hypothesis is that microcredit and outreach activities improved women's awareness, autonomy, and decision-making power so they could avail themselves of these services. Large inequities, however, remained between economic and educational groups. For example, women with no schooling were 11 times more likely to die from complications of unsafe abortion than those with at least 8 years of education. (Chowdhury et al., 2007).

### Ways Forward: What can be learned from social determinants approaches to HIV?

There is widespread agreement that maternal health is a serious global priority, given its longstanding neglect and significant inequities. There is also a growing consensus that complex health problems with multiple determinants require moving beyond vertical programs that target individual risk factors. Instead, multi-pronged strategies that bring synergies from across health and development sectors can address the full spectrum of social, cultural and economic barriers to women's achievement of health pregnancy and birth outcomes. Therefore, strengthening health systems needs to be buttressed by complementary work that challenges gender inequality, poverty, rural deprivation, and facilitates processes of good governance and accountability.

Lessons from several decades of HIV prevention and mitigation programs can help point the way forward. Sharing such lessons from HIV is at the heart of the 'AIDS and MDGs Approach' (Kim et al., 2011; UNDP, 2011). The 'AIDS and MDGs Approach' is built around three pillars:

- (1) understanding how AIDS and MDGs impact on one other;**
- (2) documenting and exchanging lessons across MDGs; and**
- (3) creating cross-MDG synergy.**

Each pillar of the 'AIDS and MDGs Approach' is directly relevant to maternal health, especially a social determinants approach to maternal health. The response to HIV directly contributes to reducing maternal mortality, since HIV contributes between 6-18% of maternal deaths, depending on the estimation model used; for sub-Saharan Africa, the corresponding statistic is 9-32% (Rosen et al., 2012). Furthermore, there has been a lot of experience in developing structural interventions to reduce HIV vulnerability by addressing the underlying conditions that put individuals in situations of risk for HIV, many of which overlap with the social determinants for maternal mortality, such as gender inequality, norms of sexual behavior, and policies that restrict the reproductive rights of individuals and communities.

Quite early in the epidemic, it became clear that the context in which HIV risk behaviors were enacted was critical to understanding transmission dynamics (Becker et al., 1998). Most interventions that tried to change the behavior of individuals by raising awareness and improving knowledge of HIV failed, as they did not take into account how individual choices are patterned by the specific mix of opportunities and constraints faced by people in their daily lives (Parker et al., 2000). The current emphasis on "combination prevention," brings together biological, behavioral and structural interventions, and has grown out of extensive research on the importance of the "risk environment" in which individuals negotiate sexual relationships and which can vary in important ways relating to local epidemiology, economic circumstances, and cultural norms (Aral et al., 2005, Feldacker et al., 2011). Thus while the primary social drivers of HIV have been identified as poverty, gender inequality, and human rights violations, these will take different forms across settings and over time (Auerbach et al., 2011) and will require different combinations of interventions drawn from the available arsenal.

## WAYS FORWARD

Despite the diversity of contexts and interventions best suited to them, experience over the course of the HIV pandemic has identified some core ingredients for a sustained and effective social determinants approach, which can help inform the development of successful maternal health strategies. These are described below, and further discussed in reference to the HIV experience and relevance to maternal health:

- **National leadership and political will** – No health issue will be effectively addressed if there is inadequate attention to it in national planning instruments, lack of public commitment to achieving specific, measurable goals, or insufficient human and financial resources to follow through on commitments. National leadership and sustainable financing are the backbone of health systems strengthening.
- **Community participation at all levels** – People have the right to take decisions over their own lives, and need the skills, resources and opportunities to be able to do so. Participation is a fundamental component of good governance. It ensures that policies reflect the priorities and needs of empowered citizens, and that governments are held to account if they do not deliver on their commitments. At local level, participation builds social capital and encourages leadership and ownership over identified solutions, and this is particularly important for populations directly affected by any specific health or human rights issue.
- **Coordinated response across government actors, institutions, and processes** – A range of governance, institutional, and management constraints often impede effective delivery of services. These can include depleted and overstretched management systems, inability to deploy skilled personnel where they are most needed, breakdown of supply chains, and challenges in reaching remote communities. It is critical to identify these bottlenecks across sectors and work in partnership to improve governance, institutional strength, management capacity and strategic deployment of new information and communication technologies. Actors beyond the health sector can make significant contributions at this level.
- **Collecting and analyzing data on social, economic, and cultural influences** – As previously mentioned, contexts vary in important ways. The social determinants of health are shaped by social divisions and dynamics specific to time and place. The development of feasible interventions relies on familiarity with the social, cultural and economic influences on health behaviors and outcomes, and their relative importance. This requires vital registration instruments, routine data collection systems, and transparent data management and analysis. Evidence-based programming needs to be based on up-to-date context-specific data that synthesizes information on a range of social and economic development indicators in addition to health statistics.

These key ingredients have proved critical to effective strategies for addressing HIV. They represent general and adaptable approaches, and can be harnessed for programs working to reduce maternal mortality.

### ***National leadership and political will***

The role that political will played in determining whether countries took timely and appropriate action on HIV has been well documented. Uganda is frequently lauded as an example of government resolve and willingness to confront the challenge head on with a combination of salient health promotion messages (e.g., “Zero Grazing” to discourage concurrent relationships,

for instance) while other countries avoided the problem until it became too late or did not maintain consistent efforts (Heald and Allen, 2004, Parkhurst and Lush, 2004).

More recently, implementation of national antiretroviral treatment (ART) programs has put great pressure on the health systems of countries, particularly in sub-Saharan Africa. Many settings do not have adequate human resources to fulfill their treatment commitments. A policy analysis of Malawi and Ethiopia has shown how with the right leadership and political will, it is possible for a country to increase its health workforce in a relatively short period of time, through leveraging international funding and investing in an intense combination of staff recruitment, training programs, task-shifting, and improved remuneration schemes (Rasschaert et al., 2011).

Efforts to improve maternal and reproductive health are also unlikely to succeed where they are not nationally owned and prioritized. Lack of national leadership is often demonstrated through inadequate attention to sexual and reproductive health in national planning instruments, insufficient human and financial resources to meet demands, and/or an over-reliance on external funding sources.

While positive leadership and political will can sometimes be driven from the top, more often it may require demand-side advocacy from civil society, assisted by the media or the support of prominent politicians, religious leaders, or other traditional authorities. For example, Nepal reformed its abortion law in 2002 after decades of activism by women's groups, doctors' associations and allies. Even after progressive action is taken, governments will need support to identify required resources needs to accelerate and sustain progress on MDG 5, to pilot innovative financing and delivery mechanisms, and to coordinate internal efforts by different development actors.

### **Community participation**

"Nothing about us, without us" has become a rallying cry for organizations of women living with HIV and international sex workers' organizations, expressing their frustration that for many years, interventions targeted groups considered to be "high risk" such as injecting drug users, sex workers, and men who have sex with men, with little consultation or regard for their needs or priorities (Chandiramani, 2010, Crago, 2008, Merson et al., 2008)

#### **Box 4: Legal reform to improve maternal health – ensuring access to safe abortion in Nepal**

Maternal mortality is extremely high in Nepal as a result of women's low status and poor access to both family planning and health care during pregnancy. Furthermore, through the late 1990s, unsafe abortion contributed to the high MMR, and this was acknowledged by the public health sector, including authority figures within the Ministry of Health. For several decades, women's rights organizations worked hard to reform the strict ban on abortions in Nepal, which resulted in large numbers of women being put in prison after seeking medical attention for post-abortion complications. Through collaborative efforts between women's groups, medical personnel, and other allies, and with the support from journalists, several key public figures, and international and multilateral organizations, a liberal abortion law was introduced in 2002. Despite this success, there were several years of delay after the legislation passed before it was implemented and abortions became available in public hospitals (Thapa, 2004, Shakya et al., 2004).

It has long been known that where affected communities have been actively involved in the design and implementation of HIV prevention and treatment, behavior change initiatives have proved to be more successful than when communities are passive recipients of health promotion messages (O'Malley, 1995, Evans et al., 2010, Gutierrez et al., 2010). Indeed, despite the success of the 100% condom use policies implemented throughout southeast Asia (Rojanapithayakorn, 2006), in which work conditions within sex work establishments were modified to foster safer norms, some sex workers have complained that these were not adequately participatory and resulted in police abuse and corruption in some countries (Centre for Advocacy on Stigma and Marginalization, 2008, Loff et al., 2003).

On the other hand, in the Sonagachi district of Kolkata, India, a long-term initiative to build social capital and catalyze community mobilization among sex workers resulted in a sustained social movement, which has successfully maintained lower HIV prevalence than in other sex work communities and built collaborative partnerships between sex workers, local politicians, and police (Jana et al., 2004). This approach has been replicated in other settings (Basu et al., 2004), and similar strategies have been used to empower injecting drug users, men who have sex with men, and members of ethnic minorities (Kraft et al., 2000, Zimmerman et al., 1997, Fuller et al., 2007). The involvement of people living with HIV and AIDS (PLHA) has also become a central tenet of HIV programming, and their active participation helps reduce stigma and discrimination (Gruskin et al., 2007, Dageid and Duckert, 2007). Some aspects of community participation have already been incorporated into interventions on maternal health, such as the participatory women's groups used in Nepal to build social capital and overcome barriers to service use during pregnancy and delivery. Women from remote villages came together to review the constraints they faced in being able to achieve the highest attainable standard of reproductive and maternal health, and confronted each barrier in turn, devising local action and promoting good health-seeking behavior more widely.

At a broader level, however, good governance requires open dialogue between political institutions and the population, and community members need opportunities to contribute to discussions about the policy frameworks that will impact them. This is likely to be especially true for rural and marginalized populations who tend to be neglected in national planning strategies and may require support in advocating for their rights. Controversial issues around marriage, sexual behavior, contraception and abortion should be openly debated so that legal decisions are based on evidence from ordinary people's everyday experiences (Cook et al., 2006). There have been calls in the past for countries to commit to genuine participation as they scaled-up HIV prevention programs (Chopra and Ford, 2005), which should also underpin the current global impetus for tackling maternal mortality.

### ***Coordinated response across government actors, institutions, and processes***

Governments need to be able to work across sectors and harmonize their strategies for complementary development goals. This requires good coordination internally, efficient and transparent management systems, and a good balance in allocation of resources across sectors and issues. Countries that receive significant external support further must be able to coordinate with international funding agencies, and global initiatives.

HIV has been the focus of numerous global health initiatives such as the Global Fund for AIDS, Tuberculosis, and Malaria (GFATM), the Presidents Emergency Plan for AIDS Relief (PEPFAR), and the World Bank Multi-country AIDS Program (MAP). While this type of funding mechanism offers a tremendous injection of new resources and can provide long-term commitment to support, they



have also been found to interfere with national planning processes and have not always strengthened coordination between implementing partners (Spicer et al., 2010). There have not always been well-functioning systems in place to ensure countries have had adequate capacity to effectively disburse the large amounts HIV funding provided to high prevalence countries.

Large new sources of funding have raised two separate but related issues: (1) how can a recipient country maximize effectiveness of financial contributions by coordinating donor activity, (2) how can countries ensure collaboration and partnership between ministries? These same questions will re-appear as funding increases for maternal health. First, duplication of effort and competition between donors need to be avoided. Second, allocation of responsibility will need to be negotiated by all ministries that can affect maternal health, i.e. women's affairs, justice, education and public works. Working across ministries to address weak management systems, poor incentive structures, and corruption needs to be facilitated; technical support can be provided by multilateral agencies such as UNDP, which have developed expertise in initiating multi-stakeholder consultations and planning processes for HIV over several decades.

### ***Box 5: Improving Governance for Maternal Health in Uganda***

When Uganda passed a parliamentary resolution in 2007 making safe motherhood a priority, there were 600 maternal deaths each year in the country. Poor reproductive health contributed to this, as Uganda's fertility rate was 6.9 children per woman and less than 20% of couples used family planning. A multi-sectoral response was needed to address a myriad of social determinants, from poor roads limiting access to services, to women's low decision-making power in the household, and a shortage of health staff (Sibbald, 2007), leading to parliament's adoption of the Roadmap for reducing maternal mortality from 2007-2015. Difficulties in implementing the roadmap were addressed through a multi-stakeholder consultation process facilitated by UNDP, which brought together UNFPA and the Ministries of Finance and Health, to implement the MDG Acceleration Framework (MAF). Following this process, several actions were put into place, including task-shifting to community based health workers, recruitment and training of new staff, sensitization of providers to some of the barriers experienced by community members, and use of dispensaries to promote and provide primary care services related to maternal health (Nabudere et al., 2011). An MDG acceleration fund was also created and commitments were linked to performance contracts and to the national M&E system.

### ***Collecting and analyzing data on social, economic, and cultural influences***

The phrase "know your epidemic" calls for national HIV programming to be based on context-specific evidence. This includes information on epidemiological trends, such as where the next 100 infections are likely to occur, but also requires understanding the circumstances, relationships, and social environments in which those infections will take place, and responding with appropriate interventions. What has often been neglected, however, is detailed analysis of the structural determinants of HIV in a particular setting, including "... *the impact of regime type, degree of centralization of power, and location of the government agency tasked with leading and coordinating HIV policy dialogue with, for example, the inclusion of the scientific community and civil society in policy formulation*" (Buse et al., 2008).

## WAYS FORWARD

Applying a wider lens to causes of HIV has led to some important policy shifts, such as decriminalization of high-risk sexual behaviors (Harcourt et al., 2010, Misra, 2009), implementation of microcredit programs for women (Pronyk et al., 2005, Sherer et al., 2005), and targeting gender based violence (Garcia-Moreno and Watts, 2000, Gupta, 1995), as ways to contribute to HIV prevention efforts. Good data has therefore become increasingly important on a wide range of socio-economic indicators to plan effective programs.

Many of these drivers of HIV are shared by maternal mortality, and indeed HIV is itself a contributing factor to the high number of maternal deaths. As is the case in HIV prevention, reducing gender inequalities and gender-based violence—by securing safety and enabling women to access justice through formal or informal legal systems, while expanding women’s economic opportunities and rights—can help to improve women’s health directly, and will also reducing unintended pregnancies, and provide women and communities with the skills required to decrease risk of complications and prevent maternal deaths from complications. National data collection and collation systems are necessary to extract and analyze data that is disaggregated by economic status, gender, education, and other relevant categories, and drawn from the legal and justice system, education sector, and other areas outside of routine health information management.

### Conclusion

Health outcomes are not simply the product of biology, but are shaped by social, economic, and cultural influences, themselves products of processes that distribute power, privilege, and resources across populations. This distribution is often unequal, patterned by social gradients based on categories such as wealth, education, ethnic background, or place of residence. The WHO Commission on the Social Determinants of Health has drawn attention to how social position determines the conditions in which people are born, grow, live, work and age, and how these conditions then cause health inequities between and within countries. Overcoming these health inequities, therefore, requires a social determinants approach based on assumptions that harmful living conditions can be changed, and the political mechanisms that cause unfair social stratification are not immutable.

Maternal health is one global health challenge that exhibits dramatic health inequities. Most of the 385,000 maternal deaths that occur each year are concentrated in poor and vulnerable populations and are all the more tragic for being mostly preventable. Maternal health is receiving increased attention in global health, development and human rights agendas and represents a priority area for accelerating progress on the MDGs. The time is right, therefore, to bring together renewed commitments to addressing maternal health and growing understanding of its intermediary and structural determinants.

At the most basic level, preventing maternal deaths involves preventing unintended pregnancy, preventing complications during pregnancy and delivery, and preventing deaths once complications arise. The required health services are well known and include providing family planning, ensuring skilled attendance during labor and delivery, organizing referrals so women with complications can access emergency obstetric care, and monitoring new mothers for signs of hemorrhage after childbirth. These services should be complemented by antenatal care, treatment for underlying conditions, such as hypertension, malaria, and HIV, as well as psychosocial support following delivery, and provision of appropriate contraception to prevent closely-spaced pregnancies. In many settings the capacity of existing health systems to deliver these services remains weak.

More broadly, a range of inter-related social, cultural and economic factors often prevent women from exercising control over reproductive health choices and from receiving or seeking care before pregnancy and during pregnancy, childbirth and the postpartum period. These factors include gender inequalities and harmful cultural norms, widespread poverty, long distances from health facilities, and inadequate infrastructure and transport services. These are further exacerbated by the lack of accountability in government and lack of political commitment to protect the human rights that create an enabling environment for women to improve their life opportunities and control over health.

To address the social determinants of maternal health, action is necessary at the immediate, intermediate and structural levels. In addition to putting into place the health interventions discussed above, laws and policies can directly or indirectly influence health, both by legislating on health-related issues, such as abortion and harmful traditional practices, and by fostering female empowerment by giving girls and women access to justice and security, education, and employment. Working in partnership with communities can help facilitate discussion around the role of cultural norms and can build protective social capital so that communities identify their own health priorities and demand improvements.

## CONCLUSION

Finally, lessons learned from the experience of tackling the social determinants of HIV highlight ways in which development actors, donors, researchers, and communities can work together. Galvanizing good governance and leadership, ensuring active participation by affected and disadvantaged communities, coordinating action across the fields of gender, education, sustainable economic development, and health, and building a robust evidence base on local manifestations of social drivers, will jointly lead to a comprehensive response to maternal health.

### **Box 6: UNDP's role in maternal and reproductive health**

UNDP is well placed to leverage its core competencies to support health partners in accelerating action on maternal and reproductive health. UNDP's entry points for action are very much aligned with the social determinants of health approach. UNDP's work in democratic governance, for example, helps ensure that socially and politically excluded groups can participate in decision-making that affects their lives, including their health, and that the management of resources and coordination of multiple stakeholders works effectively, including in the allocation of resources to and within the health sector. As UNDP already has extensive experience in this from its HIV programming, it can apply its expertise in helping national coordination of maternal health efforts, including promoting laws and policies that protect the human rights of affected communities, including maternal health in development planning processes, and generating and synthesizing evidence linking social determinants to maternal health outcomes and inequities in different country contexts. UNDP also has experience at country level in addressing the underlying social, cultural and economic drivers of maternal and reproductive health, beginning with strengthening health systems but also facilitating expanded social protection, promoting engagement with disadvantaged groups, and identifying inter-sectoral dialogue.

Indeed, UNDP has identified 3 pillars for taking a social determinants approach to maternal health, which can provide guidance to development organizations at local, national, regional and global levels (UNDP, 2011):

**Pillar 1:** *Promoting national leadership, sustainable financing, effective development assistance and aid coordination for maternal and reproductive health.* Efforts to achieve MDG 5 cannot succeed where there is inadequate attention to maternal and reproductive health in national planning instruments, insufficient human and financial resources to meet demands, or an over-reliance on external funding sources. UNDP's work on promoting national leadership, sustainable financing and aid co-ordination are significant elements in accelerating sustainable progress on maternal and reproductive health.

**Pillar 2:** *Understanding and addressing the social, cultural and economic determinants of maternal and reproductive health.* Targeted interventions to address leadership gaps and health system bottlenecks need to be combined with longer-term efforts to address the social, cultural and economic determinants of maternal and reproductive health. UNDP initiatives to address gender inequality and poverty, reduce marginalization and exclusion, improve access to justice and to secure human rights, enhance communities' social capital and support governments to improve access to sustainable energy, water, roads, transportation and infrastructure are all critical to MDG 5 progress.

**Pillar 3:** *Identifying and responding to governance, institutional, and management capacity bottlenecks that impact on the health sector.* A range of governance, institutional, and management constraints currently impede effective delivery of maternal and reproductive health services. These include depleted and overstretched management systems, inability to deploy skilled personnel where they are most needed, breakdown of supply chains, and challenges in reaching remote communities. Lack of attention to gender and cultural differences in health needs and services exacerbates these constraints. UNDP can play an important role in identifying and releasing such service delivery bottlenecks through attention to governance, institutional strengthening, management capacity issues and strategic deployment of new information and communication technologies.

In all three of these areas, UNDP brings its multi-sectoral approach to governance, poverty reduction, crisis prevention and recovery, energy and the environment, HIV, gender equality and women's empowerment, human rights and capacity development. A broad-based strategy can ensure coordinated national responses and sustainable strategies, and lead to greater impact on MDG 5.

The social determinants approach shows us that development organizations are well placed to act on some of the most distal and over-arching causes of poor health and can thus improve maternal health outcomes and reduce their inequities. Many of these root causes, such as poor governance and social exclusion, are already at the heart of work conducted by development organizations, as illustrated by the example of UNDP. By leveraging their core competencies, actors from across health and development sectors can implement a social determinants approach and ultimately make significant contributions to accelerated, sustainable progress on maternal health.

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