

# Maternal Health

“The survival of women reflects whether or not women matter” (DFID 2008)

## Overview

Every year more than half a million women suffer and die as a result of complications due to pregnancy and birth. Ten to 20 million women who do survive a difficult birth go on to suffer debilitating injuries such as obstetric fistula, urinary incontinence and depression. Ninety nine percent (99%) of these maternal deaths occur in the developing world, and the causes of the deaths are similar across all countries. There has been very little change in the global Maternal Mortality Ratio (MMR = annual number of deaths of women from pregnancy related causes per 100,000 births) over the past 20 years despite awareness of what works to save women’s lives, and more than any other health indicator, this statistic reflects the state of the world’s poorest nations health systems.

Saving women’s lives requires emergency clinical maternity care within a functioning health system, as well as awareness at all levels of the complexity of the root causes of poor maternal health. More recently it has been acknowledged that a mobilized community which acts to support families, communities and mother’s on knowledge’s, attitudes and behaviours around pregnancy, birth and the early days after birth, will contribute significantly to a reduction in maternal mortality. It is together that these 2 approaches will impact on maternal mortality: health system strengthening to provide better care of pregnant women from the top down, and family and community mobilization to improve the health of mothers from the bottom up.

The causes of maternal deaths noted on the previous page in figure 1 highlights the causes of maternal deaths in Africa and Asia, do not differ significantly between developing and developed countries, however ineffective health systems and community emergency infrastructure contribute to the large disparity between whether a woman survives the complication.

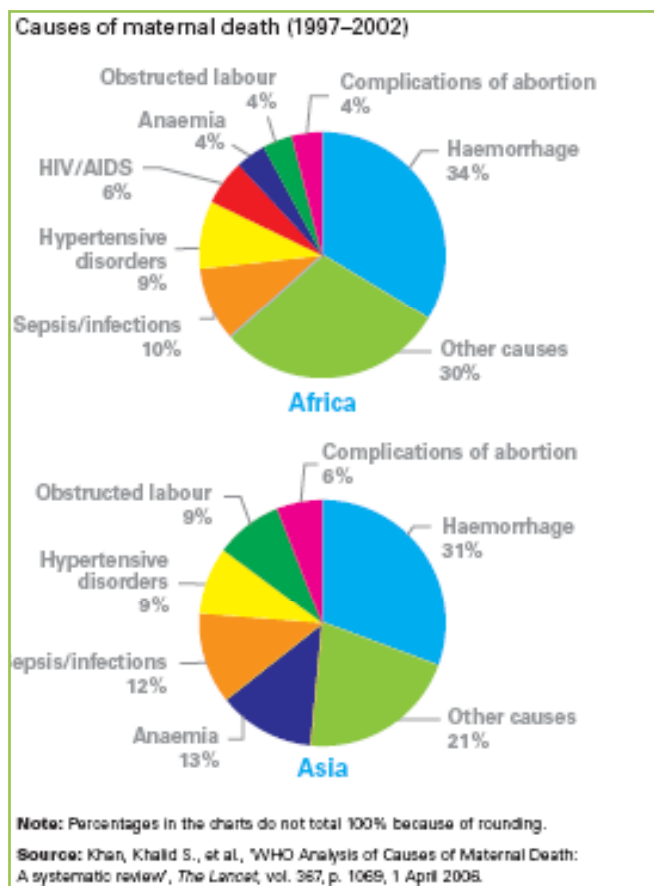


Figure 1: UNICEF Progress for Children; A Report card on Maternal Mortality September 2008

Country	Estimated number of maternal deaths per year
India	136,000
Nigeria	37,000
Pakistan	26,000
Bangladesh	26,000
Ethiopia	24,000
DRC	24,000
Tanzania	21,000
Afghanistan	20,000
China	11,000
Indonesia	10,000

Table 1: Top 10 nations accounting for 60% of maternal deaths

Source - WHO Mortality Estimates 2005, Save the Children 2007

More than 60% of maternal deaths occur in only 10 countries listed in Table 1. These figures reflect absolute numbers of deaths. However the 9 nations with the highest MMR of over 1,000 deaths per 100,000 births are, apart from Afghanistan in Sub Saharan Africa. They are Afghanistan, Angola, Burundi, Cameroon, Chad, DRC, Guinea Bissau, Liberia, Malawi, Niger, Sierra Leone, Somalia and Rwanda.

Significant improvements for individual countries MMR have been made in North Africa (Egypt, Morocco, Tunisia) and parts of Asia (Sri Lanka, China) but these have been offset by no change or even increases in MMR in some Sub Saharan African nations (due in part to conflict and HIV) and no improvement in South Asia (India & Bangladesh).

Compared to all the MDG's, MDG 5 has made the least progress since 2000 and at this rate the goal of a reduction of the MMR by ¾ by 2015 will not succeed.

The reasons for the lack of progress on MDG 5 are numerous and complex. According to the Lancet series on maternal mortality in 2006 large and significant reductions in the MMR can only be achieved when all pregnant women deliver with a skilled birth attendant. They recommend that births should occur in a health facility rather than in the home. Despite this almost 50% or around 60 million of women in developing countries, currently birth at home with no skilled attendant.<sup>1</sup>

The reality right now is that improving health systems which can provide 24 hour maternity services with well trained health professionals, who can quickly and effectively save lives, will take the world poorest nations potentially years to scale up to meet this need, even given donor support at the highest level. Strengthening these health systems at district level where most women need emergency obstetric care (EMOC), addressing the health resources decimated by the "brain drain"; the global movement of trained health staff away from poor nations, and the effect of the HIV pandemic on loss of trained health staff, has meant that improvements put in place to address the acute clinical care needs of women in labour and delivery and the early postnatal period, have not been met and may not be achievable for some time to come.

Women in many of these countries do not choose to use health services, cannot access them or do not understand their value, cannot afford them, or suffer gender inequalities which mean many do not have any decision making power around being pregnant and where they should birth. A woman who dies during pregnancy or birth leaves behind a newborn and/or older children. Children born into motherless households have a 3 fold chance of dying before their 1st birthday and other children's health is severely compromised.

There is some evidence that significant reductions in the MMR can be achieved through community based health education and mobilization techniques which are relatively cheap and simple to implement compared to the more complex health service improvements. Supporting and driving family and community based concepts needs large investments in community development and empowerment

1 WHO 2006a Update, "Skilled attendant at birth", ICM & UNICEF 2006 "Investing in midwives and others with midwifery skills to save the lives of mothers and newborns and improve their health", UNICEF "State of the world's children " 2008.

schemes which increase knowledge and demand for health services and assists to make governments more accountable. This process includes promoting unskilled but trained health workers, such as traditional birth attendants (TBA) and community health workers (CHW), whom may have a larger impact in reduction of the MMR than previously thought.

In the past these community health workers have not been considered as part of the health system.<sup>2</sup> There is no denying that political will and funding is required to strengthen health systems which will save mothers and babies lives, however much can be gained to work from the bottom up with communities at the same time as supporting governments to strengthen health systems. Below are 3 key themes identified specifically to address this community based continuum of care for families and communities.

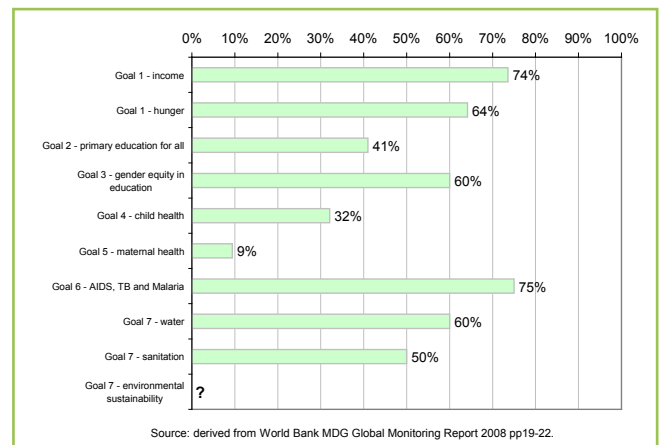


Table 2: Summary of global progress on the MDG's

2 Kerber, K et al 2007 "Continuum of care for maternal, newborn and child health: from slogan to delivery" The Lancet 370:1358 – 1369.

## Policy Focus 1 - Maternal Nutrition

### Why this focus is critical - Survival starts in the womb.

1. Evidence for preventing maternal malnutrition.

There is overwhelming evidence that women of reproductive age who enter pregnancy healthy (normal weight and normal haemoglobin status and no infections ie: STI’s) will have the best chance of surviving the rigors of pregnancy, birth and the early postnatal periods, as well as the best chance for their baby to be born full term and of a healthy weight. A child who enters the world at a healthy weight (2.5kg – 4.5kg) born at term (37 – 41 weeks gestation) to a healthy mother, starts life with the best chance of surviving the first 5 years, anywhere in the world.

The root causes of maternal under nutrition are related to poverty and social political contexts such as the education of women. Gender inequalities play a significant role, especially in Asia. Also varying contexts such as war and conflict, food insecurity and high prevalence of HIV, such as in Afghanistan and sub Saharan Africa are also implicated. Maternal mortality is a measure for child mortality so that in countries where there continues to be high MMR child mortality is also usually high.

2. At least 20% of global maternal deaths are linked to poor nutrition.<sup>3</sup>

The reality for women and children in many developing countries is that malnourished and anaemic women become pregnant when they are underweight (classified as body mass index < 18.5 or commonly pregnant women at full term who weigh less than 50kg). These women often suffer micronutrient deficiencies. Of these deficiencies the most catastrophic, because it contributes significantly to maternal mortality, is iron deficiency anaemia.

3. Anaemia is responsible for at least 12% of direct maternal deaths world wide. It is also implicated in the deaths from postpartum heamorrhage the cause of 25 - 35% of maternal deaths worldwide. However anaemia is implicated far more in Asia than in Africa.

	Anaemia	Heamorrhage
Africa	3.7%	33.9%
Asia	12.8%	30.8%

Table 3: Causes of maternal death - a systematic review

Source: WHO Lancet 2006; 367: 1066 - 74

3 Black R, et al 2008 “Maternal and child under nutrition: “ The Lancet 371: 243 - 260

The reasons for the disparity between Asia and Africa are poorly understood, but could include differences in dietary practices and beliefs, food security issues and women’s decision making power.

Anaemic and underweight pregnant women have higher risk of giving birth to a stillborn baby, a preterm baby or a low birth weight baby. So not only does maternal malnutrition and anaemia contribute to maternal deaths, it is also has significant impact on the life and survival of the child.

Providing iron folate to pregnant women during pregnancy has both a curative effect by improving anemia by increasing haemoglobin (Hb) levels in the blood and a preventative effect by protecting a pregnant woman from developing iron deficiency during pregnancy (12 g/l increase in Hb at term).<sup>4</sup>

*In countries where malaria is endemic and infection causes pregnant women to develop anaemia the combined effect of iron folate supplementation with prophylactic malaria treatment in pregnancy will reduce maternal mortality by 23%.<sup>5</sup>*

Apart from its effect on increasing the heamoglobin (Hb), iron folate supplementation during pregnancy has other side effects including weight gain, increased appetite, induces better sleeping and improved mood. Iron folate supplementation will impact on birth weight and reduce the risk of preterm labour and low birth weight babies. However iron supplementation takes time to be effective, and usually requires 3 months supplementation to impact on improved Hb at daily supplementation dosages of 400ug folate + 65mcg elemental iron. Pregnant women in poor communities need access to these supplementations as early in their pregnancy as possible, for both the curative effect and to prevent anaemia, to protect the fetus, as well as the influence on women’s weight gain and appetite in pregnancy.

Encouraging antenatal care and applying the WHO antenatal care protocol requires midwives to dispense 3 months (90 tablets) of iron folate supplements to all pregnant women at each antenatal visit. This is aimed at ensuring pregnant

4 Bhutta Z, et al 2008 “What works? Interventions for maternal and child survival” The Lancet 371: 417 - 440

5 Black R, et al 2008 “Maternal and child under nutrition: “ The Lancet 371: 243 - 260

women receive enough iron to make a difference to their health status whether or not they ever have another visit to the antenatal clinic. Although attendance to antenatal care for at least 1 visit has improved over the last 10 years many women do not return for further visits.<sup>6</sup>

There is a generational link between malnourished children who survive into adulthood and remain stunted as adults. They go on to produce malnourished babies, the cycle crossing generations.<sup>7</sup> There is clear evidence that children who are born low birth weight have significant long term health risks and a reduced chance of surviving 5 years.<sup>8</sup>

The consequences of poor health system logistics means many health clinics will suffer essential drug or vaccine stock outs. This can result in situations where an antenatal visit may not provide the pregnant woman with the iron folate supplements she requires, nor the anti malarial prophylaxis drugs, nor impregnated bed net to protect her and her child from malaria, or the tetanus immunization to protect her newborn. In these circumstances she may be instructed to buy these at a local pharmacy or store, and may never receive them.

Encouraging women to return for more than one antenatal visit has many health benefits to pregnant women. Repeated antenatal care assists in the woman's understanding and compliance in taking the iron supplementation and it can help in understanding the concepts of birth preparedness and complication readiness. But in many countries pregnant women only ever attend one antenatal visit and this visit could be mid to late in their pregnancy. In countries where this is the reality, CHW could also ensure pregnant women in the community receive enough iron folate supplementation to prevent or treat anaemia.

If a woman is found to be moderately or severely anaemic at the antenatal clinic her treatment will include higher dosages of iron folate supplementation (moderate anaemia = 2 doses per day) or for cases of severe anaemia, referral for management to a tertiary hospital. At referral, depending on the quality of the health service, iron studies may be performed to diagnose causative links such as thalassaemia and treatment such as iron injections or blood transfusion may be recommended. In many countries this referral care

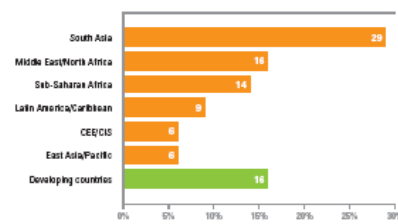
6 Folate is combined with iron and protects the fetus against neural tube defects such as myelomeningocele or spina bifida especially if taken pre-conception or in the 1st trimester.

7 World Bank 2006, "Repositioning nutrition as central to development: a strategy for large-scale action"

8 Victoria C, et al 2008 Lancet series 2 "Maternal child under nutrition: consequences for adult health and human capital Vol 371 pp 340 - 357

### 16 PER CENT OF INFANTS IN THE DEVELOPING WORLD, 29 PER CENT IN SOUTH ASIA, HAVE LOW BIRTHWEIGHT

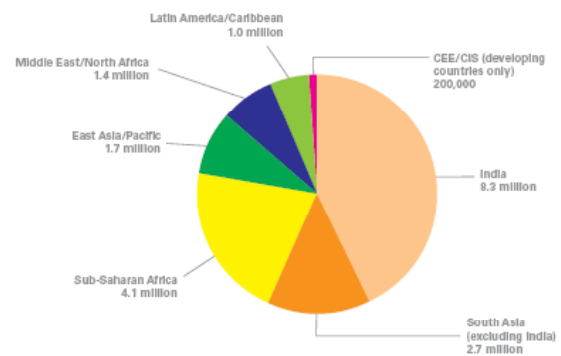
Percentage of infants weighing less than 2,500 grams at birth, by region (1999–2006)



### MORE THAN 19 MILLION INFANTS IN THE DEVELOPING WORLD HAVE LOW BIRTHWEIGHT

More than half are in South Asia; 8.3 million are in India

Number of infants weighing less than 2,500 grams at birth, by region (1999–2006)



A World Fit for Children Statistical Review 7

Figure 2: UNICEF A world Fit for Children 2008

does not occur and is not possible. In many rural poor communities clinical laboratory diagnosis is absent often due to poorly functioning health services or transport and costs to the family related to the referral may be the barrier. To overcome some of these contextual constraints providing universal community based iron folate supplementation to all pregnant women is recommended.

A pregnant woman who is anaemic requires access to a skilled birth attendant (doctor, midwife or nurse) and is advised to birth in a facility with blood transfusion services. She is considered at high risk of dying if she was to suffer a postpartum haemorrhage (PPH). However the reality for many women in poor nations is this is impossible and the majority will birth at home with no skilled birth attendant. These women need to have had protection and prevention from anemia by access to iron folate supplementation as early as possible into their pregnancy, to avoid the very real chance of dying from the post partum haemorrhage (PPH). Strong healthy women with normal Hb values often withstand the blood loss of an unexpected PPH, anaemic women have much less chance of survival. If they deliver with a skilled birth attendant they will be provided with an injection of a drug called oxytocin, given immediately after the birth of the baby, which can protect them from a PPH.

## Policy Focus 2 - Birth Spacing & Family Planning

### Why this focus is critical - Fertility holds the key to survival

There is overwhelming evidence that comprehensive sexual and reproductive health services which include family planning (FP) education and access to contraceptives makes a huge impact on family, community and child health especially in terms of maternal mortality and child mortality, but also in sustainable social development and the protection of fragile environments which will support future generations.

Up to 35% of maternal deaths could be averted through better access to family planning.<sup>9</sup> This equates to an estimated 100,000 maternal deaths which could be avoided each year if all women who said they did not want anymore children were able to stop childbearing.<sup>10</sup> No other medical intervention has such a broad span of potential benefits. The evidence of an association between high fertility rates, poverty and ill health is clear. Family planning is also one of the most cost effective ways of reducing infant and child mortality<sup>11</sup>

Woman and children in the world’s poorest nations carry the burden of suffering related to pregnancy and childbirth and women particularly suffer a lack of control over their fertility. Their suffering and deaths can be directly related to a lack of choice in controlling their own fertility and lack of access to family planning. In the poorest countries of the world fertility and population growth remain high and the success of the MDG’s in these countries largely depends on successes in addressing population issues.

Region	Contraceptive prevalence
Sub Saharan Africa	24
Eastern & Southern Africa	30
West & Central Africa	18
South Asia	46
Least Developed countries	29
Developing countries	59
World	60

**Table 4: Contraceptive Prevalence (%) per region summary of the lowest (% of women in union aged 15 – 49 currently using contraception)**

Source: UNICEF State of the World’s Children 2007

9 DFID 2008, “Maternal Health Strategy, Reducing maternal deaths: evidence and action”

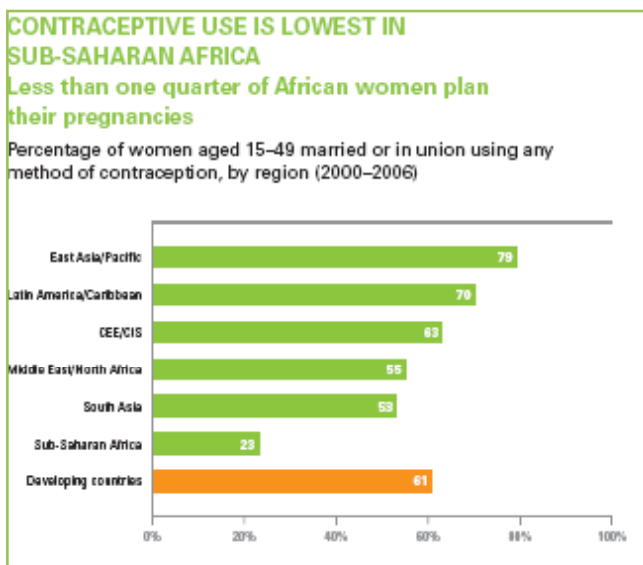
10 UNFPA2005 “Unmet need for family planning”

11 Cleland J et al 2006, “Family Planning: the unfinished agenda” The Lancet 368:1810-1827

What is the difference between the terms “family planning” and “birth spacing”? In the past family planning may have been viewed by families and communities as forced population control, generating negative stereotypes in some communities based on the belief that it was coercion of populations, and viewed with suspicion by many vulnerable communities. In some communities there remains fears that FP is unsafe, has too many side effects or is associated with forced sterilization or other conspiracy theories. In fact family planning is very safe and all methods of modern family planning methods are safer than pregnancy and birth!

The term “birth spacing” reflect the rights of women and men to choose how many children they wish to have. USAID funded projects have been promoting birth spacing through key messages which advise 2 to 3 years between pregnancies. This makes sense to communities and families and has been accepted and promoted in many countries, including those with strong faith based traditions.

Women and children both benefit from birth spacing. For women’s health, birth spacing of at least 2 to 3 years between each pregnancy allows time for the mother’s health to recover from the pregnancy and birth, and improve and build up again her iron and other micronutrient and vitamin stores which have been depleted due to the pregnancy. This alone assists her to enter the next pregnancy in a much healthier state which will ensure a better chance of a healthy baby. The time between children also allows her to resume previous work and support the family economically either in



**Figure 3: UNICEF Progress for Children: Report Card on Maternal Mortality 2008**

unpaid work such as agricultural & livelihood activities or to engage in paid work.

Example: During Indonesian occupation East Timorese women were forced to have injectable contraceptives and they are associated with a violent regime aimed at eliminating the East Timorese population. Following disasters or forced occupation or fleeing from violence it is common for communities to want more children, to replace those lost, or as a way of ensuring their people's survival. It is therefore understandable that in the East Timor the population requires education and support in order to understand and embrace family planning strategies, which will ultimately reduce poverty in their communities.

Birth spacing is credited with a reduction of 20% child mortality in India and a 10% reduction in Nigeria.<sup>12</sup> On average infants born after intervals of less than 2 years are twice as likely to die as those born after longer intervals.<sup>13</sup> Children born into families with many children may have more health problems beginning in the antenatal period where the mother may not access antenatal care due to her large workload caring for the family, resulting in poorer health of mother and baby. Higher order children, those born into a family with 5 or more children, are associated with growth stunting.<sup>14</sup> Birth spacing allows for more food to be shared around families and for greater opportunity for parental emotional support and care of children.

If a mother dies during childbirth, community beliefs and practices around gender roles may result in girl siblings being forced to leave school and look after the younger siblings.

Globally funding and support for family planning has reduced significantly over the last decade. According to UNFPA global funding for family planning in all population assistance declined from 55% in 1995 to 9% in 2004. This decline can be explained in part by the "ideological resistance to the sexual and reproductive health and rights paradigm".<sup>15</sup> mostly driven by the US government family planning policies. Simple, cheap and effective interventions have existed for more than 50 years but are still unavailable in many of the poorest communities of the world today. Every year globally more than 120 million couples have an

unmet need for contraception and 80 million women have unwanted or unintended pregnancies.

Between 1960 and 2000 the proportion of married women in developing countries using contraception rose from 10% - 60%, however from 1994 on, family planning funding dropped steadily down the list of international priorities. There had been significant success in various countries in reducing the total fertility rates, however the downside of this success was the reduction in a FP focus resulting in reduced funding for contraceptive research and family planning services. This reduction coincided with the emergence of the HIV/AIDS pandemic. The HIV/AIDS pandemic is obviously worthy of funding and attention but this focus contributed significantly to the shift away from FP.

In recognition that family planning access is vital to maternal health and mortality and had been "neglected" during the original MDG planning, the UN added new targets to the MDG 5 in 2007, specific to reproductive health. This finally recognized that control of fertility plays an essential part in meeting the MDG goal of reduction of maternal mortality by  $\frac{3}{4}$  by 2015. The new MDG 5 target 5B to achieve by 2015 "universal access to reproductive health". The new indicators include adolescent birth rate, antenatal care coverage (at least 1 visit and at least 4 visits) and unmet need for family planning.

<sup>12</sup> UNFPA 2005, "State of the World's Population"

<sup>13</sup> USAID Issue Brief 2006 "Healthier mothers and children through birth spacing"

<sup>14</sup> WHO 2004 "Effects of contraception on mortality"

<sup>15</sup> Cleland J et al, 2006 "2006, "Family Planning: the unfinished agenda" The Lancet 368:1810-1827

## Policy Focus 3 - Birth Attendants

### Why this focus is critical - Who will save this mother and baby?

There is no doubt that a mother's health and survival is linked to effective health systems which can provide emergency obstetric care and save lives during any complication related to pregnancy and birth. Approximately 15% of all births could develop complications and these are rarely predictable before labour starts. If a woman does not have access to effective health care during pregnancy and birth, her odds of dying from complications during her reproductive lifetime is high.<sup>1</sup> In sub Saharan Africa it is 1 in 16.<sup>2</sup>

Every year 60 million women give birth at home with no skilled birth attendant.<sup>3</sup> Of the 68 poor nations being tracked for MDG 5, 54 (or 80%) have health workforce densities below the critical threshold for achieving improved health and meeting the health related MDG's 4, 5.<sup>4</sup> The evidence is clear that progress in reducing maternal mortality is linked to progress in strengthening health systems to ensure a workforce and system able to manage obstetric emergencies, however the task ahead to meet this health workforce need is immense. In 2005 WHO estimated that 334,000 more midwives and others with midwifery skills were needed around the world.<sup>5</sup> Significant support, technical and financial is required to recruit, educate, train and support these midwives and other skilled birth attendants, and place them equitably into communities where they are needed.

Whilst there is global agreement that investing in health workforce and health systems is critical, community based approaches which compliment the role midwives and health systems have been given much less attention. More recently, support for a continuum of care via family and community care packages has been promoted, to integrate the community's role within a total health system approach. It aims to improve healthy behaviours at community level whilst advocating strategies that support maternal and child health. The packages advocate for integration into health planning including behavioural change and communications (BCC), mothers groups, community mobilisation, CHW incentives and remuneration, improved connection to health systems and supervision and support structures.<sup>6</sup>

This final theme looks at community based interventions to address mortality during the birth process and whilst it may not be as effective skilled health professional attending births, could make significant impact on the MMR in particular contexts especially in the short term (the next 5 years), whilst large investments are advocated in health systems support. Combined together there is a real chance that the MDG 5 could be met. Many deaths occur due to delays in decisions to seek care and delays in reaching health care with many women dying having had no contact whatsoever with any health service.

The "3 delays" concept introduced in 1994<sup>7</sup> described clearly the complexity of the root causes contributing to a woman's deaths when she births at home with no skilled birth attendant. When something does go wrong during a pregnancy or birth in the home, the time that it takes for family members, with little or no birth preparedness skills or knowledge, or for an trained TBA with no drugs and few clinical skills, to make decisions to seek care, is critical. There are multiple reasons why a woman may die during this period when critical decisions are delayed, these are listed below in Table 6 and the 1st is highlighted as key to the family and community context.

1 The Lancet 2006 Maternal Mortality Series

2 WHO et al Maternal Mortality 2005

3 Save the Children 2006 "State of the World's Mothers"

4 UNICEF Countdown to 2015, 2008 Tracking progress in maternal, newborn and child survival: the 2008 report

5 UNFPA-ICM 2006, "Investing in midwives and others with midwifery skills to save the lives of mothers and newborns and improve their health"

6 Kerber K et al, 2007 "Continuum of care for maternal, newborn, and child health:

from slogan to service delivery" The Lancet 370:1358-1369

7 Thadeus and Maine cited in USAID The ENABLE project 2003 "Igniting Change" page 1 from "Too far to walk": Maternal mortality in context. Social Science and Medicine. 38:1091

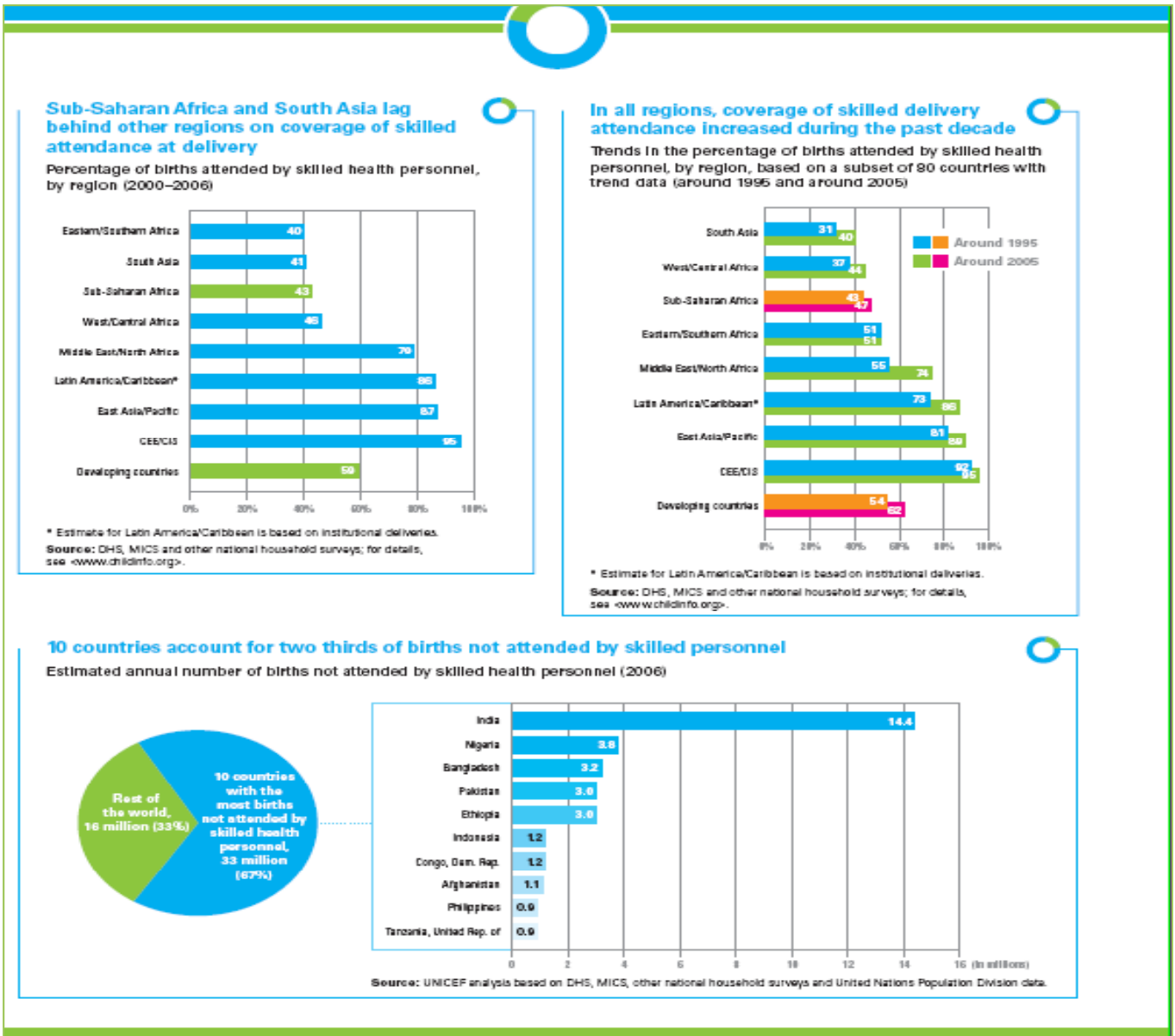


Figure 4: UNICEF Progress for Children; A report card on Maternal Mortality September 2008

Delay	Factors related to the delay (root causes related to poverty)	Solutions lie with?
Delay in seeking care	Traditions, customs & superstitions, social practices, permission from family members (husbands or mothers in law) who may not be present, health services too far away, poor roads and transport in community, anticipated costs of care, night time (dark), raining, facility open times, awareness that health staff are away, embarrassment of poverty, care of other children whilst away, time to call for help (walking or by animal), poor communications, fear, poor knowledge or lack of confidence in the facility (place to die), lack of awareness of urgency of complication	Family and community mobilization for pregnant women
Delay in reaching appropriate care	Facility too far from community, no trained staff, no basic equipment, few transport options, poor communications, poor roads, time of day/night, seasons, lack of awareness of urgency of complication	Local & District health systems for EOC & Family and community using CBPM methods
Delay in receiving care	Facility closed, communications poor, staff not at facility 24/7, no staff trained in EMOC, poor stock of essential drugs and equipment, poor communications to a referral facility, poor ambulance transport system, poor roads, up front costs & payment expected before care, weak capacity and quality of health care, lack of awareness of urgency of complication, delays in triage process, poor communications to medical staff, poor quality control, poor medical record keeping	District and National health systems need improvements at all levels for EMOC

Table 6: The 3 Delays contributing to maternal mortality

The major cause of maternal mortality globally is hemorrhage, contributing to 30 - 34% of all maternal deaths. It is estimated that a woman may die somewhere between 2 and 6 hours from the onset of a post partum haemorrhage (PPH), especially when the bleeding is heavy.

Table 7 below demonstrates other causes of maternal mortality and the estimated times it takes for a woman to die. This gives insight into time frames for seeking treatment and the clinical management needed to save lives. Given these longer time frames it becomes even more clear that families and communities hold significant roles in saving a mother's life. For example the time it takes for a woman to die from Eclampsia (suffering a fit or repeated fits during pregnancy, birth or early post partum due to hypertensive disorders of pregnancy). She may not die for up to 2 days, which should be enough time for families, even in the most rural or remote community, to seek health care after the first fit. For a woman who is suffering from infection and sepsis, how can it be that she may not gain access to health care despite being severely unwell with a fever, abdominal pain, and foul smelling discharge for 6 days after the onset of symptoms? The answer lies with the families and communities knowledge, attitudes and behaviors and the solution lies in community based social mobilisation.

Cause of death	Average time till death
Antepartum Haemorrhage (APH)	12 hours
Post Partum Haemorrhage (PPH)	2 hours – 6 hours
Ruptured uterus	1 day
Eclampsia	2 days
Obstructed labour	3 days
Sepsis	6 days

**Table 7 – Time to maternal death**

Source: UNICEF Regional Strategy to Reduce Maternal Deaths – East Asia and Pacific Regional office 2003.

Community based health workers such as traditional birth attendants (TBA's) or families currently provide much of the care to labouring and birthing women in poor nations where women predominantly birth at home. TBA's are generally respected members of the community. Often their role is handed down over generations from grandmother to granddaughter. Strictly the term TBA refers only to "traditional" or lay midwives, independent of any health system, without formal training and answerable only to the family and community, much the same as traditional healers such as medicine men.

In the past the global "Safe Motherhood" initiative, which

began in 1986, placed too much reliance on TBA's to save women's lives, and this resulted in a global failure to make any real impact on maternal mortality over the next 15 years. During that time TBA's were supported, often by NGO's, with community based training and supplies of basic equipment, but otherwise left on their own to deal with the catastrophic obstetric emergencies, disconnected and independent from health systems, services and staff. In hindsight they should never have been expected to have save lives.

TBA's even when trained are not skilled birth attendants. Skilled birth attendants will have undergone a nursing or midwifery qualification or be a medical doctor with obstetric training. Their role however, needs to be acknowledged and recognized. Many countries have done this and included them in their in RH policy frameworks (LAOS, Mozambique, Ethiopia) whilst others have literally ignored them in favour of policies that promote birth in facilities with skilled attendants only (East Timor). The reality is that TBA's are part of many communities in which families and communities live and their potential, along with other trained community health workers, to influence maternal health and the MMR positively is very real. However to be effective all health workers, regardless of the skills they possess need a supportive enabling environment.

## Advocacy Campaign Options

### 1. Maternal Nutrition - What needs to change?

#### At the Global Level

1. Universal coverage (100%) of use of iron folate supplements for pregnant women (consumed daily for a minimum 3 months - regardless of access to antenatal health services).
2. Develop a global surveillance system to collect and collate data on the use of iron folate supplements during pregnancy.
3. Call for a global fund (much the same as the GFATM) to ensure effective funding for iron folate production, storage and distribution.
4. Target high need countries to prioritise iron folate distribution.
5. Develop and maintain an international database monitoring the use of iron folate for pregnant women (the same as antenatal care is monitored).
6. Add an indicator for anaemia in pregnancy as % of pregnant women who have used 3 months of iron folate during pregnancy.
7. Monitor the supply of iron folate to identified high need countries

#### At the Regional & National Level

1. Set up regional and national surveillance systems recording data on % pregnant women who use iron folate (at least 3 months during pregnancy).
2. All governments (MoH) adopt policy of universal coverage of iron folate in pregnancy.
3. MoH implement iron folate distribution to all pregnant women and include maternal nutrition health promotion activities.
4. National government policy to address anaemia includes policies to fortify staple foods (eg: rice or wheat) with iron and folate.
5. Community Based (CB) methods of distribution to all pregnant women who may not have access to health systems is recognised in MoH policy.
6. Effective distribution systems of iron folate is implemented to district health level (and to health NGO's & CBOs working in collaboration with district health) and is monitored and reportable.
7. Effective national pharmacy management systems are in place to ensure no stock outs of iron folate occur and is monitored and reportable

#### At the District and Local Community Level

1. Local health staff implement distribution of iron folate through antenatal services and include health promotion activities.
2. Local NGOs and CBOs assist distribution of iron folate to remote pregnant women with poor access to antenatal care and include health promotion on maternal nutrition.
3. Training is provided to all local district health staff and to NGOs and CHW on iron folate benefits for pregnant women and systems to ensure distribution, data collection and monitoring.
4. Local health staff and NGO / CBO staff monitor iron folate use in pregnancy and provide this data to the district.
5. District health systems monitor iron folate use and provide data to the MoH.
6. Local district pharmacy management systems ensure no stock outs of iron folate occur and they are monitored and reportable.

#### Questions/ gaps related to iron folate

What is the cost of the tablets? (GIK may know this)? Who is responsible for production? Is it widely available? Is there any shortage and where and why? Is there any WHO/UNICEF literature related to funding of, supply of or shortage of, ie: stock outs. Which nations are the target ie: have high anaemia prevalence in pregnant women, weak health systems and high MMR and IMR? Which countries have implemented fortification of staple foods?

## Advocacy Campaign Options

### Other Policy asks which address under nutrition in pregnancy and lactation?

1. All pregnant women use antenatal care (ANC) – this is already measured globally

Comment: The activities listed below fall within comprehensive ANC however are not measured globally. The data is likely be available nationally. The main message is that the health promotion activities related to iron folate can encompass other methods to address maternal under nutrition. For example we know the root causes of poor maternal nutrition are often cultural. These traditions and cultural taboos which result in poor maternal nutrition must change via coordinated behavioural change and communications (BCC) strategy for MCH in each country, and which have included in the above maternal anaemia calls.

The list below forms part of (adequate or comprehensive) antenatal care and which have direct impact on maternal anaemia. These asks are:

- All pregnant women use de worming medication twice during the pregnancy.
- All pregnant women living in malaria endemic zones sleep under insecticide treated bednets.
- All pregnant women living in malaria endemic zones use prophylactic antimalarial medication.
- All pregnant women and communities receive BCC and health promotion so that caloric intake and quality of nutritional value of the food increases during pregnancy and lactation.

## Advocacy Campaign Options

### 2. Birth Spacing & Family Planning - What needs to change?

#### At the Global level

All nations have repositioned their commitment to meet the MDG 5 target B by 2015: “Universal access to Reproductive Health Services” and in particular address the indicator 5.6 “unmet need for family planning” which were added in 2008.

1. Global funding within the whole health aid budget constitutes ? % for Family Planning and increases by ?? to meet the need of programming for family planning health promotion and contraceptive commodities.
2. Global funding to ensure adequate production, storage and distribution of FP commodities.
3. Call for free supplies of FP drugs and commodities as short term humanitarian urgent action in priority countries (unmet need for FP is high, health systems are weak and MMR & IMR are high).
4. Global advocacy prioritises birth spacing (BS) and family planning (FP) community education programs with a wide reach using multimedia approaches (all men and women in all priority country communities).
5. Global commitment to increase funding for BS & FP to priority countries by 2010 ie: Calls to the G8.

#### At the Regional and National level

National MoH strategies and policies identify family planning and birth spacing as priority.

6. National governments health budget identifies ?% allocated for BS and FP programs.
7. National governments acknowledge population growth and its impact on all aspects of development in key government documents.
8. National FP program frameworks contain strategy and policy specifically aimed at adolescents.
9. MoH prioritise the development of partnerships with skilled NGOs and CBOs to ensure BS and FP activities reach all populations (especially those most remote communities and those most vulnerable).
10. MoH strategy and policy support BS and FP health promotion activities including IEC materials and commodity distribution through a variety of means including NGO and CBO in remote regions or in disadvantaged communities (such as IDP populations or urban slums).
11. MoH strategies allocate adequate human resources to support training and administration for FP and BS activities at the national and district level.
12. MoH monitor FP commodity use which is inclusive of NGO and CBO distributions in the community.

#### At the District and Local Community Level

1. District health services have clear policy promoting partnerships with local skilled NGOs and CBOs to enable FP community education programs and provide FP services to all communities including the most remote and disadvantaged groups.
2. District health services provide training, refresher courses and support for BS & FP programs to health staff and to NGOs & CBO's.
3. District health services appoint specific BS and FP staff with responsibilities for all aspects of FP including training and liaison with communities (NGOs, CBOs, FBOs).
4. District health services implement flexible working hours to increase access to FP services.
5. District health services implement effective data collection of FP commodity use in partnership with local NGOs and CBOs and ensure district data and monitoring is shared with the MoH.

#### Questions/gaps related to family planning

Which nations have signed up to the repositioned MDG 5 target b in 2008? Which are the priority countries according to above criteria? How much more funding is needed to support UNFPA to effectively do its job globally? Is there a problem with costs, production and distribution of FP commodities? Is UNFPA the main player for managing the donor response globally? How much of global health budget aid should be for FP? How much of the health budget nationally should be for FP? How much do NGOs and CBOs currently provide FP services?

## Advocacy Campaign Options

### 3. Birth Attendants - What needs to change?

#### At the Global level

1. Global call that all governments identify the importance of the role of the community and Community Health Workers (CHW) and the continuum of care required for improving mothers and children's health in key policy documents and in their MDG 4 & 5 commitments.
2. Globally funding bodies, UN Agencies and NGOs prioritise short term strategies to address the shortage of skilled birth attendants in high priority countries.
3. Universal registration of all births.

#### At the Regional and National level

1. Governments health strategy and policy recognises CHW as an integral part of the continuum of care to improve maternal and child health and that CHW are integrated with local district health services.
2. Government MoH health budget includes adequate MCH funding for community based CHW training, incentives, wages and research on their impact.
3. Government MoH strategy policy demonstrates both short term and long term strategies to address the lack of skilled birth attendants in reducing maternal and newborn deaths. Specific policy for short term activities should include; clean birth kits for remote women, TBA support and training, emergency transport initiatives, fast tracked community midwife training, incentives for CHW.
4. Governments have key policy documents on birth registration which includes the role of CHW in collecting and reporting births and deaths.
5. Government MoH health budget prioritises health promotion for MCH using behavioural change and communication (BCC) methodology which recognises community traditions, beliefs and practices which are harmful to mothers and children.
6. Government MoH ensure data on CHW MCH activity is monitored and reportable at district and national level.
7. Birth registration data systems are implemented, recorded and monitored at local, district and national level.

#### At the District and Local Community Level

1. District health services integrate CHW into all MCH action plans and activities (outreach activities, supplies, training, birth registration etc).
2. Training, supervision and support for CHW on MCH is budgeted and implemented at district health level.
3. MCH BCC activities are implemented in each district and IEC MCH appropriate materials for health promotion are available and accessible for CHW.
4. Districts health services implement short term strategies for improving maternal and newborn health including distribution of clean birth kits, TBA training and support, community emergency transport initiatives, fast tracked community midwifery training initiatives.
5. District health services collect and monitor data on CHW MCH activity and report to MoH.
6. District health services collect birth registration data from health staff and CHW and report to government.

#### Questions on birth attendants/CHW?

Define what is a CHW? Define what is a TBA and how are they different. Which countries are the priority for this call? Criteria include high number of births with no skilled birth attendant, high MMR and IMR, and weak health system. Which countries support TBAs as part of CHW? What % countries health budgets do go to health promotion and BCC, what is a reasonable ask? What % countries health budget goes to support CHW strategies? What is a reasonable ask?

## World Vision's Experience & Practice

### 1. Maternal Nutrition

#### Pragati Child Survival Project, Uttar Pradesh, India 2003 – 2007

Working in partnership with the MoH of Uttar Pradesh and other NGO's, WV India implemented this successful MCH project in a rural area where the main beneficiaries were the most vulnerable poor from the lowest castes who suffer high maternal and child mortality and had significant unmet needs for family planning. The project benefited up to 300,000 children and 700,000 women and cost approximately \$0.60US per mother or child per year. The project used a combination of health messages packaged together and delivered by community health workers. Methods consisted of home based education and behavioural change on a "continuum" which aimed for maternal and child health messages to be "appropriately timed: neither too early, lest they be forgotten, nor too late for the behavior to be practiced, and appropriately targeted to those who would practice these behavior, and to those who would influence the decision to adopt these behaviours".

The home counseling was provided by locally trained community health workers whose role was to locate and register all pregnant women in their assigned community, follow their progress and provide key timed MCH messages. Women and their families were visited in the home 7 times over the course of a pregnancy and infancy; 3 during pregnancy, 1 immediately after childbirth and 3 in infancy. Key messages included breastfeeding, maternal nutrition and antenatal care, family planning and immunization. The project was effective with significant improvements in knowledge and uptake of family planning, exclusive breastfeeding in children under 6 months, introduction of semi sold foods in children between 6 – 9 months, and increased immunization rates and Vitamin A supplementation and it complemented and increased use of local government health services. As a result WV India staff, with the support of a high level bureaucratic "champion", have successfully advocated for the model to be incorporated into the MoH nutrition and education strategy which will benefit up to 166 million people across Uttar Pradesh.

<http://www.worldvision.com.au/learn/policyandreports/files/StrategiesThatWork.pdf>

### 2. Birth Spacing & Family Planning

WV Ethiopia's "Kachore safe motherhood project" has been successful in increasing contraceptive usage. Ethiopia has very high fertility rates especially in rural areas such as the project described here. Combining family planning care by both community based, locally trained reproductive health workers and government clinic health staff, women's usage of contraceptives increased from 23.8% in 2006 to 41% in 2008. The project's success hinged on the community health workers who promoted family planning by community education and awareness raising. Twenty (20%) of women who were using contraceptives in 2008 accessed them via the community health worker compared to only 5% in 2006. The project worked closely with the government health service and other partners to ensure contraceptive supplies were available. The project's success ensured that WV Ethiopia will continue the project to the community and the MoH for another 3 years.

### 3. Birth Attendants

WV Ethiopia's "Kachore Safe Motherhood project" has supported the training of traditional birth attendants for over 3 years 2006 - 2008. In this rural area pregnant women have predominantly birthed at home assisted by family, neighbours or untrained TBA's. There are large cultural and traditional barriers to birthing in a health facility and the project had only limited success increasing births in facility from 3.8% in 2006 to 8.9% in 2008. However women did respond to community education about accessing the trained traditional birth attendants. The project trained 75 traditional birth attendants (TTBA's) and educated the community about safe birthing at the clinic or with the TTBA. Births attended by TTBA's increased significantly from 0.3% (3 births) in 2006 to 30% (225) in 2008.

## Additional Supporting Evidence

### 1. Maternal Nutrition

#### A “Family & Community” care approach

It is clear that in many families and communities in developing countries do not have sufficient knowledge on why maternal nutrition is important to mother’s and children’s survival, and their attitudes and behaviors effect how they parent and feed their children, leading to high malnutrition. The World Bank report highlighted that in many communities which do not have food security problems, there were still significant malnutrition issues primarily related to poor knowledge and practices of food production and preparation, and knowledge of nutritional needs of young children particularly around the 6 months – 2 years age range. The report highlighted that, ironically, malnutrition could manifest in households where other family members may suffer obesity, such is the poor understandings of nutrition.

Anemia is a silent condition and not observed easily by the family or community. It is a “disability” only measured when a woman does access health care usually for antenatal care and the health service has the facility to perform a Hb test through a laboratory or other method (WHO Hb colour scale or Heamocue) and quantify the presence of anaemia. If these laboratory tests are not available in the community health centre then women are usually assessed by physical examination, where the midwife looks for the presence of pallor of the eye conjunctiva and the palms of the hands, a very subjective way of assessing health status, but nonetheless effective compared to no examination.

Women often have physically demanding roles in the family and community (farming, rice paddy work, water pumping and carrying, cleaning, picking, child care) and suffer the physical side effects of anaemia (tiredness, breathlessness, lack of concentration, dizziness) sometimes enduring and suffering quite severe levels of anaemia (Normal Hb > 12 g/dl ,severe anaemia Hb < 7 g/dl). It is clear that mothers suffering from anemia will find mothering more difficult.

Community based approaches which empower families and communities to improve their maternal and child nutritional status through education about the health & nutritional needs of pregnant women, along with access to iron supplementation at household level, could make a huge difference to maternal mortality and therefore child survival. Simple messages such as “eat one extra meal during pregnancy” can have powerful effects on women’s nutritional status if the whole community is mobilised to utilize the information.

In many communities health services are available but communities and pregnant women do not utilize them. It is not always a matter of lack of services but of community awareness, poor understandings of the health staff and their role, and poor communications between the community and the health service. Improving access to antenatal care by working on community mobilization through community health workers and health system supportive measures may have large impacts on nutritional status. Community health workers can increase community understandings about the need to increase caloric intake during pregnancy, and to access iron supplementation when pregnant, thereby increasing demand for health services.

Home based and community based preventative care is possible and appropriate in the absence of functioning health systems or in conjunction with them, and can be scaled up quickly to access all pregnant women in communities. Iron folate supplements can be distributed via unskilled trained community based health workers to pregnant women along with advice and education about increasing caloric intake and attending the health centre for antenatal care. Barriers to success include costs of drugs and CHW’s equipment and incentives in order to efficiently perform community mobilization. Iron folate is one of the cheapest drugs to procure and distribution by health workers is possible if incentives and equipment are provided.

#### Sub themes within this issue

- Low birth weight and the relationship and implications to children’s long term chronic health problems as well as links to deaths (still births, neonatal deaths in 1st week of life and 1st month of life, under 6 months, 6 months –m 2 years, 2 – 5 years). Role of malaria in LBW - links to disease prevention
- Preterm labour – why does maternal nutritional status effect labour timing? The effect of pregnancy on maternal immunity and the role of STI’s and ascending genital tract infections during pregnancy. Also related to malaria during pregnancy.
- Pre conceptual interventions – how can maternal nutrition be influenced during the adolescent period or in newly wed women? What is the potential impact of preventing anaemia in adolescent girls (10 – 18)? (UNICEF – Adolescent nutrition: a review of situation in selected South-East Asia Countries – In India this study

found 74.7% of girls aged 12 – 19 were anaemic (study number 65,000) in Indonesia the project focused on newly wed women's pre conceptual health.

- Antenatal care specifically related to maternal nutrition – in malaria endemic regions presumptive intermittent prophylaxis treatment and bed nets to all pregnant women reduce the effects of malaria on Hb & anaemia and low birth weight, de worming pregnant women in the 2nd trimester has an effect on nutritional status and anaemia. These measures can be provided in the community by a trained CHW.

### Emergency context

Maternal nutritional needs must be addressed during periods of crisis and food insecurity. In refugee or IDP populations consideration of maternal nutritional needs is paramount to prevent high rates of maternal and child mortality particularly neonates from low birth weight and child deaths from infectious diseases.

In situation such as large numbers refugee and IDP populations and during famine, pregnant women must be located and supported with balanced energy protein supplementation. This will result in a 32% reduction in term low birth weight (IUGR) births and 45% reduction in the risk of stillbirths.<sup>16</sup>

Consider the effects of the food crisis in Africa and the specific effects on pregnant women

Consider the effects of climate change – specific effect on pregnant women in poor countries which are low lying (Bangladesh, Pacific Islands) or prone to more cyclonic and storm effects (South Asia) who are already malnourished or anaemic.

### Links with other campaign options

- Child health is influenced by preventative health care at a primary health care level - if communities learn & understand about preventative health care and health seeking behaviors then using available services such as immunization services and Vit A and de worming is improved - Nepal RCT<sup>17</sup>, model mothers in Laos, Bangladesh & India

- Child Nutrition – links with preventing malnutrition by promoting breastfeeding exclusively in the first 6 months (this health promotion should happen during the antenatal period and is part of the role of community based groups such as mothers groups) and in promoting effective supplementary feeding after 6 months within the community. If malnutrition is a problem then application of community based models (Positive Deviants, Hearth) and Behavioural Change and Communications (BCC) strategies along with home visiting by CHW, as well as implementing CTC's in emergencies in response to acute malnutrition integrated with the community approach.

- Infectious diseases prevention - Role of malaria in direct cause of maternal deaths due to anaemia especially during malaria peak times and in sub Saharan Africa, links between malaria and child malnutrition, contribution of malnutrition to reduction in immunity and increased risk of infectious disease especially in low birth weigh babies, child anaemia and micro nutrients which may prevent disease – Vit A, Zinc, child development effects including cognitive development and productivity

- Human Rights – both women and children must have access to adequate nutrition to be healthy, and gender inequalities and decision making power in the family is a common barrier for women to have good nutrition. Addressing men's role in the community is vital and the strength of a community and family care model is that it is inclusive of men and women, will address the rights of the fetus, newborn and child. The "Asian Enigma" – why is malnutrition much worse in South Asia ? "In South Asia women's status is particularly low. A mothers ability to make decisions at home and in her community not only effects the care she receives and thus her own nutritional well being, but also enables her to provide better care for her children. If women and men had equal status in South Asia with all other factors held as is, the % of underweight children would decline from 46 – 33% a reduction of 13.4 million malnourished children"<sup>18</sup>

- Strengthening health systems – addressing need for 24 hour effective essential obstetric care (EOC) and Emergency obstetric care (EMOC) at local, district and

<sup>16</sup> Bhutta as above page 422

<sup>17</sup> Manandhar D et al 2004 " Effect of a participatory intervention with women's groups on birth outcomes in nepal: a cluster-randomised controlled trial" The Lancet 364: 970 - 979

<sup>18</sup> Smith L, et al International Food Policy Research Institute 2003 "The Importance of women's status to child nutrition in developing countries"

government level is essential to improving maternal and neonatal outcomes. Some of this can be approached from a community perspective using a model such as community mobilization thru CBPM or community insurance schemes, especially when it includes transport to health services in emergencies such as PPH. Antenatal care provided by midwives/nurses or doctors with access to basic package of drugs and equipment is essential, but TBA's and CHW's need to be linked with the health system and be considered part of it in addressing anaemia in each community especially to access the iron supplements

## 2. Birth Spacing & Family Planning

**Evidence that the “family and community care” approach can contribute significantly to reducing maternal mortality and child health through access to family planning.**

The very survival of poor communities to help themselves develop out of poverty is directly linked to the growth of their populations. In countries with high fertility rates the population is growing at a rate that the country has little hope of being able to support into the future, especially in rural areas. Added to this is the impact of the global food crisis and the effects of climate change. As an example East Timor will double its population by 2017 and currently has one of the highest fertility rates in the world, with nearly 50% of the population entering reproductive age (15 – 24 years). The table below outlines those countries with the highest fertility rates of which all are in Africa apart from Afghanistan and Timor Leste.

Country	Fertility Rate
Niger	7.3
Afghanistan	7.2
Guinea- Bissau	7.1
Burundi	6.8
Liberia	6.8
DRC	6.7
Timor Leste	6.7
Mali	6.6
Uganda	6.6
Angola	6.5
Somalia	6.2
Burkina Faso	6.1

**Table 5: Top 12 counties with expected Fertility rate over 6 children per woman in 2006**

*Source: State of the World's Children 2008 Demographic Indicators*

When families have many children, especially if they are close together, all elements of family and community life and survival are effected. Smaller families relieve some pressure on economic, social and natural resources required to sustain the community, such as schools and education, water and sanitation, employment opportunities. The benefits of family planning and birth spacing in families and communities for children are numerous. Children will enjoy better health, as there are less children for each family to take care of and the family can devote time and resources to provide adequate food, clothing, housing and educational opportunities and consequently experience a better quality of life.

Family planning plays a role in preserving the global environment, especially in response to the climate change phenomenon. Further population rises put fragile marginal land under pressure from over cropping and overgrazing, especially in rural areas. This problem is especially acute in Africa “where the ratio of arable land to population engaged in agriculture has fallen steeply”.<sup>19</sup> For these reasons alone FP might be one of the most cost effective ways of preserving the planet's future.

There is no doubt that women and families at community level want more information about reproductive health, FP and birth spacing and may wish to access FP commodities. Within many communities there are concerns about the adverse effects of family planning methods on health, which are based largely on misinformation. When families and communities are provided with information and education they do mobilize towards increased demands for reproductive health services and for access to contraceptives.

Trained CHW, supported by community organizations, armed with RH educational resources and the ability to distribute some contraceptives, can significantly contribute to saving lives as well as create demand for more comprehensive RH health services in their community. When community leaders including faith based leaders are mobilized, understand, agree and promote FP & BS messages, they can have a big impact on advocacy and decision making which will effect child survival in each community. Trained CHW can provide women and men with basic reproductive health information and refer them to the health system for more information and counseling or clinical services. They can reduce the amount of misinformation in the community and increase

<sup>19</sup> Cleland J et al 2006, “2006, “Family Planning: the unfinished agenda” The Lancet 368:1810-1827

the demand for services. They can also play a significant role in access to certain contraceptives in the absence of regular health services especially in rural and remote areas.

Community based FP commodity selling and marketing has been modeled in a number of countries by various non government organizations (NGO's) with success. Cost recovery systems where condoms and contraceptives (oral) are sold to community members via a FP trained CHW at fair prices, especially in the absence of effective health systems in rural and remote areas can be successful, especially for men who may never attend a health service to discuss FP. Procurement of family planning commodities can be supported through local community revolving drug funds which can be sustainable and community driven.

It is clear that some women prefer to see the nurse or midwife at health services for family planning advice rather than use a CHW. They may prefer long acting 3 monthly injectables or the longer acting IUD (Intra Uterine Device) or Implants which can only be provided by trained health professionals. She may also wish to have the privacy and confidentiality which health services should ensure, compared to a CHW. Some women living in highly patriarchal societies, where choices and decision making about their health is controlled by husbands or mothers in law, may be able to control their fertility secretly through access to family planning health services at the clinic. Either way the CHW role is likely to influence demand and understandings of reproductive health and FP.

Community based mothers groups whose focus is on health education for themselves and their children can make an impact through discussing natural family planning methods. For example by promoting exclusive breastfeeding for 6 months, where mothers are taught not to give their baby any food or fluids other than breast milk, they can naturally reduce their fertility (called Lactational amenorrhea or LAM). With support and education they can prepare for a return to fertility after this time and access birth spacing contraceptives at 5 - 6 months. This LAM method has direct health impact on child survival because promoting exclusive breastfeeding has numerous health benefits for the mother and child including reducing the risk of HIV transmission. Exclusive breast feeding alone can save 13% of deaths in the under 6 month age group.

Committing human and financial resources to improving family planning and birth spacing programming at the community level will improve the health and well being of

women, children and communities as well as support efforts to achieve a sustainable global future.

### Sub themes within this issue

- **Abortion** – as a consequence of unplanned or unwanted pregnancy there are 50 million abortions every year and some 20 million are estimated to be unsafe. An estimated 68,000 women suffer and die every year from unsafe abortion (13% of all maternal mortality) about eight every hour, 200 women everyday. 220,000 children worldwide loose their mother every year from abortion related deaths.<sup>20</sup> About half the deaths occur in Asia and most of the rest in Africa. The proportion of maternal deaths related to unsafe abortion is as much as 19% in South Eastern Asia. Support for community based education around seeking post abortion care (PAC) is a priority given little support in the past, and one which can fit with ours and other faith based organizations anti abortion stance. We can advocate for women who suffer and die from an unsafe abortion and the campaign will need clear reference to our stance on abortion. Early seeking of care in the event of an infection following an unsafe abortion will save women's lives – and community health workers could play a role in early treatment of these women.
- **Adolescents needs** - providing adolescents with information and education about sexuality and reproduction has been shown to increase the age of sexual debut and delay the age of the 1st pregnancy<sup>21</sup>
- **STI's & HIV** - educational and social mitigation within families and communities, mainstreamed with effective RH health services will reduce maternal and child deaths from HIV/AIDS
- **Gender issues** – men hold decision making powers around fertility in many communities especially in South Asia and community based initiative which work closely with men and leaders hold the key to improved health of women and children

### Emergency context

- Access to RH during crisis especially to contraceptives – poor recognition by emergency planners of the need to provide MISAP for women in the first weeks of crisis. Ref to Aceh experience - where thousands of women who

20 Grimes D et al, 2006 "Unsafe abortion: the preventable pandemic" The Lancet 368: 1908 - 1919

21 Bearinger L et al, 2007 "Global Perspectives on the sexual and reproductive health of adolescents: patterns, prevention and potential" The Lancet 369:1220-1231

had been using contraceptives could not get access to contraceptives after the tsunami

- Climate change & impact of population growth
- Communities reactions to disasters – needs to replace population, and related to poverty which prescribes more family members needed to do the “work”
- Gender based violence increases during humanitarian emergencies and women require protection

### Links with other campaign options

- **Human Rights and Gender** – the right to reproductive health (RH) is a human right, as is the “right not to die from a pregnancy related cause”<sup>22</sup> Men and women have a right to be informed and to have access to safe, effective, affordable, and acceptable family planning methods of their choice. These rights include the right to methods of their choice for regulation of fertility which are not against the law, and access to appropriate health care services that enable women to go safely through pregnancy and childbirth and provides couples with the best chance of a health child. RH rights also relate to the rights of the child to have the best possible family structure which will assure his/her wellbeing. Men often hold the key to decision making on all aspects of a families health, including family planning and are directly influenced by community leaders who support FP.
- **Disease prevention - HIV/AIDS and PMTCT**– RH services are critical to providing access to information and education about sexuality, and to disease prevention and treatment services for adolescents and adults. RH services at a primary care level will impact on communities health especially if integrated with CHW and community mobilization principles. Access to condoms and addressing men and women’s sexual health needs is crucial to combating the HIV/AIDS epidemic. Access to comprehensive RH services including FP gives communities the ability to prevent STI’s including HIV. Without RH services women diagnosed with HIV cannot protect their fetus or child from acquiring HIV during pregnancy, birth or breastfeeding. In countries with very high HIV prevalence (Lesotho, Kenya) large numbers of children under age of 5 will die from HIV/AIDS due to mother to child transmission of HIV. For those women already aware of their HIV status providing FP information and choices in order to avoid further pregnancies will reduce the burden of children at risk of

transmission. Access to FP and birth spacing services are part of a comprehensive RH packages and are critical to improving the health of communities inextricably linked to the MDG4, 5 & 6.

- **Child Nutrition** – motherless families and OVC due to the deaths of mothers during child birth, will suffer more in all aspects of child health and nutrition. Family planning and birth spacing play a large role in preventing or avoiding another pregnancy and the risk of dying due to that pregnancy. A child whose family uses family planning and birth spacing are less likely to be malnourished during infancy to the age of 5 and suffer less from stunting and underweight.<sup>23</sup>
- **Strengthening Health Systems** – Comprehensive RH services including FP services provided by trained health professionals (providing counseling and clinical care, diagnostics, oral and injectable contraceptives, IUD & implant, sterilization for men and women) are crucial to reducing maternal and child mortality and must be a high priority at donor, government, district health services and at a local area. Family planning is a very cost effective health intervention which reduces the burden of illness and disease on health services. There is a place for community based and trained CHW to educate families and communities about sexual and reproductive health. They may also have a role in providing some simple contraceptives at community level, especially in countries with local health system constraints and shortcomings, as a short term solution to support more long term RH strategies. These community based activities can work complimentary to government or private health services to ensure all populations, but especially rural and remote and urban poor communities have access to family planning.

## 3. Birth Attendants

### Evidence that the “family and community care” approach can contribute significantly to reducing maternal and child mortality

There is some convincing evidence that significant reductions in the MMR can be achieved through community based health packages which emphasize maternal health education and mobilization, and which are relatively cheap and simple to implement compared to health service and systems improvements.<sup>24</sup> Supporting and driving these family and

<sup>23</sup> USAID Issue Brief 2006, “Healthier mothers and children through birth spacing”

<sup>24</sup> Manandhar D, et al 2004 “Effects of a participatory intervention with women’s groups on birth outcomes in Nepal: a cluster randomised controlled trial” The Lancet 364:970-979

<sup>22</sup> Grimes et al 2006 “Unsafe abortion: the preventative pandemic” The Lancet 368:

community based concepts and investing in unskilled but trained health workers (such as traditional birth attendants and RH community health workers, mothers groups, model mothers, lady health workers) may have a larger impact in reduction of the MMR than previously thought.

In the past these community health workers have not been considered as part of the health system.<sup>25</sup> There is also evidence that the quality of CHW services can be variable and they require support, education, resources, supervision and monitoring measurements of their effectiveness. Birth outcomes and healthy behaviours have however been vastly improved and demonstrates that healthy behaviours around birth emergency preparation in poor rural populations can be greatly improved through low cost, potentially sustainable, participatory community interventions that empower women and families to improve home based care and to use available services. This includes acting more quickly in the face of maternal emergencies and counteracting the delays outlined in Table 6.

Community participation and involvement in health facility management and in the CHW or TBA's roles through concepts such as village health committees, will assist with the social action needed to effect change at both a community level and at the health systems level. We know that improved maternal health cannot rely solely on influencing individual women because their family and other members can exert major control over decisions regarding child bearing and reproductive health. This is why antenatal care often has not influenced change in where women birth, due to women attending the antenatal visit without their husband or family members, and the opportunity to educate family decision makers is lost, the woman powerless.

Education provided by a respected CHW or TBA in the home and with various members of communities may be far more effective in influencing decisions around health seeking behaviours, as well as clean birth and promoting perinatal hygiene. TBA's and other CHW must be seen as a part of and an extension to the health system and part of the health care team. TBA's and CHW's must be welcomed by the health care system. All stakeholders, from individual women to communities to policy makers has shared responsibility for maternal health especially around birth preparedness and complication readiness, the one area which this family and

community model can make the most impact on MMR.<sup>26</sup> Most childbirth complications cannot be predicted and therefore pregnant women and their families need to know what to do when an obstetric emergency occurs.

Traditional Birth Attendants and CHW's can be supported to serve as advocates for skilled care, encouraging women to seek care and to support women during labour when they do have with a skilled birth attendant. They can act as agents of change, promoting removal of harmful practices and can provide men and women and community leaders with health promotion, education and some limited clinical care such as promotion of clean delivery practices and promotion of health seeking behaviour if complications occur. They can prepare women for breastfeeding effectively and promote nutritional and family planning concepts and serve as a link between health services and the community. TBA's are not substitutes for midwives but they are the main provider of care during labour for millions of women, especially in settings where mortality is high. They are clearly a resource too important to ignore.

### Sub themes within this issue

- **Community emergency funds** – developing and supporting communities in managing and planning funds for use during pregnancy and birth emergencies, child health emergencies or for community accidents to ensure the community can access quickly the funds needed to provide transport to health services and the costs of health care. These could include community insurance schemes, revolving drug funds or similar schemes
- **Post natal care** – often left out of programming but major contributor to MMR and neonatal deaths, PNC provided early in the 1st week post delivery can have significant impact on maternal and child mortality. CHW & TBA's can provide some of this care as well as notify health services of a new birth and assist the local midwife in locating and arranging for early care in the home. The role of community education and preparedness is crucial in saving lives during this period.
- **Clean birth kits** – in the absence of any skilled birth attendant provision of education and kits may have an impact on MMR and neonatal mortality and are used in many countries.
- **Saving maternal lives through access to essential medicines** in the community and provided by community

25 Kerber K et al 2007 "Continuum of care for maternal, newborn, and child health: from slogan to service delivery" The lancet 370:1358-1369

26 USAID The ENABLE project 2003 "Igniting Change! Accelerating collective action for reproductive health and safe motherhood" "

health workers (TBA's or CHW) during obstetric emergencies – this could include antibiotics for sepsis, “misoprostal” for haemorrhage. Both of these drugs are oral and can be given in the community in the absence of health staff (similar to child pneumonia treatment). There is some evidence that these alone could make a large impact on deaths from hemorrhage and sepsis. A more liberal approach to access of these drugs in the poorest countries could save the lives of many women<sup>27</sup> Added to this could be neonatal resuscitation techniques taught to unskilled health workers could make a real difference to neonatal survival.

### Emergency context

During emergencies especially natural disasters and in conflict where large populations may be displaced, implementation of the Minimum Initial Service Package (MISP) to support reproductive health in refugee situation is vital in saving mothers and babies lives. Many lessons have been learnt about the importance of this package from previous emergencies when many women and babies died due to lack of coordination and planning for the needs of pregnant women. Awareness raising amongst all key stakeholders of the level of maternal and infant mortality that can occur when there is no health care and referral systems set up early in an emergency directly considering birthing women's needs during emergencies. 15% of births will need access to EMOC and if these women are not considered and calculated for then lives will be lost. Promotion of MISP within all agencies and coordination with UN agencies on the ground is vital. Communities can be prepared for these types of needs and can ensure their own supply of clean birth kits and of condoms as part of an emergency preparedness plan for pregnant women and for couples who have lost access to their usual contraceptive supply.

### Links with other campaign options

**Strengthening Health systems** – there are many references to the role of strengthening health systems in this theme however the most relevant is community based emergency methods to help reduce delays in decision making and accessing care. These are related to emergency transport, the costs of emergency health care “pay or die” and the potential for communities to access the essential drugs. All these can be addressed from the community up approach and also by CBPM applied to support local system development. Revolving drug funds for essential obstetric life saving drugs

and emergency transport schemes should be considered, as well as community health insurance schemes. Health economists should be consulted on these issues especially in specific country contexts

**Rights and Gender** – The 1st “delay” introduced in table 6 has clear links with the rights of women to make decisions about access to obstetric care during emergencies. Common scenarios relate to gender inequality and which can prevent women from making decisions about their own health and these need to be addressed. It also links with education, as it is clear that women who are educated, and have more economic opportunities may have better access to care and choose to birth in a health facility.

There is clear evidence that in some poor nations the western sense of an “individual” is not understood or culturally the norm, and communities make decisions based on collective ideals. To address the rights model in these countries has many complexities but is a clear pathway to determining individual women's right to not to die due to pregnancy and childbirth.<sup>28</sup>

<sup>27</sup> Costello A 2006 “An alternative approach to reduce maternal mortality” The Lancet 368:1477-1479

<sup>28</sup> USAID The ENABLE project 2003 “Igniting Change! Accelerating Collective Action for Reproductive health and safe motherhood” page 4.