**Briefing notes: Maternal Mortality**

## 1. What is the problem?

- The 1995 estimates of maternal deaths for the world was 515,000. In terms of **maternal mortality ratio (MMR)**, the global figure is estimated to be 400/100,000 live births. Of these deaths, almost all occur in the developing world.[i]

- The **average risks of women dying in the developing world** from the complications of pregnancy and childbearing are much higher than the risks women in the developed world are exposed to. For instance, the lifetime risks of pregnant women dying in least developed countries is 1 in 16 while the lifetime risks of pregnant women dying in industrialized countries is 1 in 4,085. Thus, of all human development indicators, maternal mortality ratios show the greatest disparity between developed and developing countries.[ii]

- This is just the tip of the iceberg. According to WHO estimates, some 15 million women develop short- and long-term **disabilities** as a result of pregnancy and childbirth. Such disabilities which include rectal and vesico-vaginal fistulae, infertility, and bladder prolapse, compromise women's quality of life.

## 2. What measures are effective and should receive top priority?

- Evidence shows that **women's access to emergency obstetric care (EmOC)** has been extremely crucial in the prevention of maternal deaths and disabilities.

  Two levels of EmOC have been defined:
  a) Basic EmOC which should be available at the Health Center level includes antibiotics, anticonvulsants, manual removal of placenta, removal of retained products of conceptus, and assisted vaginal delivery; and
  b) Comprehensive EmOC which should be available in district and regional hospitals includes all the elements of Basic EmOC plus caesarean section and blood transfusion.[iii]

- **Skilled attendance at delivery** is desirable as this may influence outcomes of pregnancy but immediate access to **EmOC** is life-saving. While there is a critical shortage of health human resources, there are ways to respond to this problem. Upgrading skills of existing staff for instance is an incentive for health personnel to remain in their jobs. This can include training nurse-midwives in life-saving skills; training general practitioners, medical assistants, and midwives in obstetric surgery; and training nurses in anesthetic skills.

- **Family planning** reduces a woman's chances of unwawnted pregnancy and subsequently her chances of maternal deaths. Family planning, however, does not reduce a woman's risk of acquiring complications once she is pregnant.

## 3. What measures are not as effective as the measures discussed above in preventing maternal deaths?

- Evidence suggests that most components of **antenatal care** based on the *risk approach* do not prevent maternal deaths. The *risk approach* relies on the assumption that obstetric complications can be predicted and prevented. Studies however have shown that the majority of women identified as being "at risk" will not acquire complications while the majority of women who develop complications are low-risk.[iv]

  Antenatal care may improve maternal health if it includes effective interventions such as detection and treatment of pre-eclampsia; presumptive treatment of malaria; treatment of

underlying medical conditions exacerbated by pregnancy as well as educating women and their families on the danger signs of pregnancy and childbirth.

- **Traditional birth attendants (TBAs)** have not had any impact on reduction of maternal deaths. The role of TBAs should not be in assisting deliveries but in health promotion activities, counseling on family planning methods, and referral of deliveries when complications seem imminent. But for referral, there needs to be accessible EmOC services.

- The evidence for a clear beneficial effect of **micro-nutrient supplementation** on reduction of maternal deaths remains weak. The impact of iron supplementation, for instance, on maternal death is weak. For anemia, treating the underlying factors such as presumptive treatment of malaria and hookworm would have a much stronger effect.

**4. What should Unicef do now?**

- The **3 Delays framework**[v] of factors which prevent women from having access to EmOC provides a basis for Unicef's strategic interventions. The 3 Delays model will be used to design, implement and monitor strategic activities. The elements of the model will not be used in isolation. Rather, it will be addressed as a system.

  The 3 Delays model specifies the three types of delay that contribute to the likelihood of maternal death: a) delay in deciding to seek care; b) delay in reaching a treatment facility; and c) delay in receiving adequate treatment at the facility. Responding to the third delay is considered the first priority because emergency obstetric care saves women's lives.

- Unicef should assist governments in setting priorities that **strengthen health systems**, i.e., preventing maternal deaths and disabilities through provision of EmOC should be a top priority. Thus, Unicef should encourage and assist Ministries of Health in providing EmOC through: developing **human resources** for the efficient functioning of facilities (upgrading managerial and technical skills); **upgrading facilities** and **ensuring the necessary logistic support** (supplies, equipment, transport, and infrastructure); assuring the delivery of **quality EmOC services**; establishing **management information systems** in facilities; and strengthening **supervision, evaluation, and monitoring** of EmOC services.

**5. What else needs to be done to respond to the two other delays?**

<u>At the household and community levels:</u>

- **<u>As efforts to ensure the availability of EmOC services progress</u>**, Unicef should respond to the two other delays – delay in seeking medical care and delay in reaching the health facility. Measures designed to prevent such delays have to be instituted in the household and community.

  Often, people know when and where to go for medical care but they do not go because they are aware that the facility has no drugs, the staff are usually not present, or patients are treated disrespectfully.[vi] There is a need therefore to invest in improving the quality of the services which health facilities offer.

  Also, it is important to invest in strategic communication intended to change behavior of partners and husbands and of entire communities. There is a need for clear educational messages which emphasize the danger signs of pregnancy. There is a need to mobilize the community to develop mechanisms for transporting women to an EmOC facility. And there is a need to organize communities around micro-insurance, cooperatives, and health financing mechanisms which will ensure that families of women gain financial access to services.

At the national level:

- Unicef should secure high-level political commitment – and sustain this – to reduce maternal deaths.

- Unicef should advocate for legislative initiatives which will reduce maternal deaths (e.g., allowing midwives and nurses to give anesthesia; and delaying the age of marriage).

- Unicef should continue to work with partners at the international, regional, and national levels.

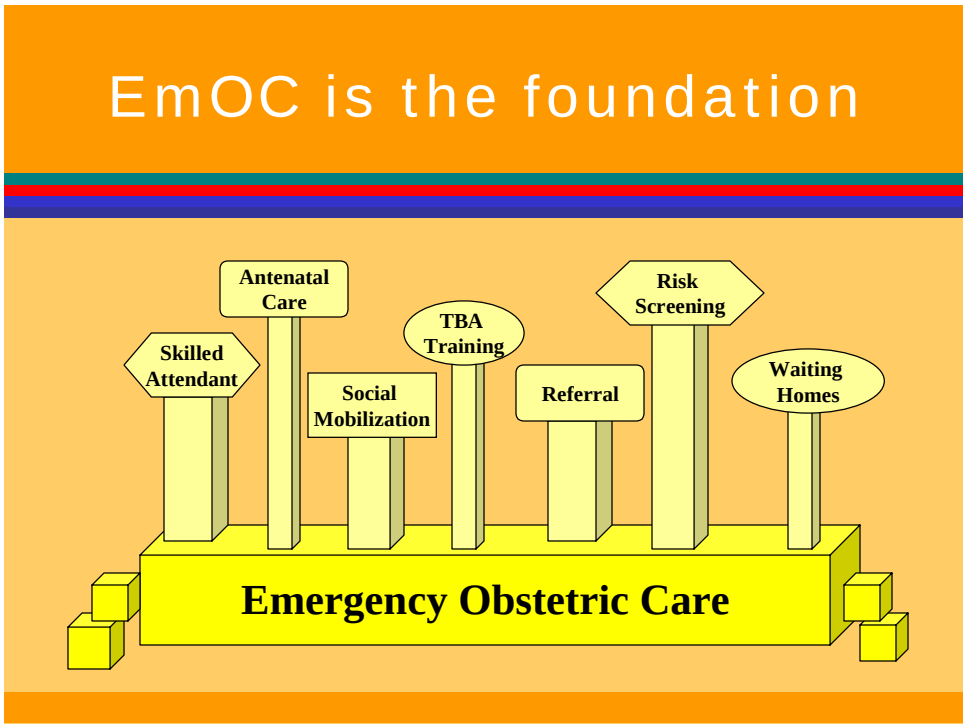
**6. What more needs to be done?**

- There is a need to measure progress of health programs in reducing maternal deaths. As impact indicators – maternal mortality ratio and rate and lifetime risk of maternal death – are highly complext, dependent on data which may be non-existent or unreliable, and costly, another alternative approach is to use **process indicators**[vii].

  These are designed to measure changes in the steps leading up to the desired outcomes. Process indicators are not a poor substitute for indicators based on impact. They provide information which can be used to plan programs. They point to problems that need to be addressed. And they have advantages in evaluating program success.[viii]

  Process indicators – which UNICEF, WHO, and UNFPA developed -- include the number and distribution of functioning EmOC facilities per 500,000 population; the proportion of expected complicated cases in the population admitted to EmOC facilities; number of caesarean sections performed as a proportion of all births in population; and case fatality rates among women with complications admitted to facilities.[ix]

- Unicef should advocate to have the **UN Process Indicators be adopted as formal tools** to be used by countries when they report to the UN monitoring bodies on their progress in implementing CEDAW and the ICPD.[x]




[i] WHO/UNICEF/UNFPA. Maternal Mortality in 1995: Estimates developed by WHO, UNICEF, UNFPA. WHO/RHR/01.9, 2001; See also Maine, D and A Rosenfield, "The Safe Motherhood Initiative: Why has it Stalled?" American Journal of Public Health, 89 (4):480482. 1999.

[ii] WHO/UNICEF/UNFPA. Maternal Mortality in 1995: Estimates developed by WHO, UNICEF, UNFPA. WHO/RHR/01.9, 2001.

[iii] UNICEF. *Programming for Safe Motherhood: Guidelines for Maternal and Neonatal Survival.* UNICEF, New York, 1999.

[iv] Maine, D, et al. "Meeting the Community Half Way: Programming Guidelines for the Reduction of Maternal Mortality." UNICEF, New York, unpublished, 1993.

[v] Thaddeus, S and Maine, D. "Too Far to Walk: Maternal Mortality in Context." Social Science and Medicine 38 (8): 1091-1110. 1994.

[vi] The PMM Network. "Barriers to Treatment of Obstetric Emergencies in Rural Communities of West Africa." Studies in Family Planning, 23 (5):279-91, Sept/Oct 1992.

[vii] Wardlaw, T and D Maine, "Process Indicators for Maternal Mortality Programmes," Safe Motherhood Initiatives: Critical Issues, Blackwell, London, 24-42, 1999.

[viii] Maine D, et al. *Guidelines for Monitoring the Availability and Use of Obstetric Services*. UNICEF/WHO/UNFPA. October 1997; Wardlaw, T. "Preventing maternal deaths: Using process indicators for obstetric services." PREviews, a UNICEF Newsletter on Evaluation, Policy and Planning; December 1997; Vol. 1, No. 4.

[ix] Maine D, et al. *Guidelines for Monitoring the Availability and Use of Obstetric Services*. UNICEF/WHO/UNFPA. October 1997.

[x] Maine, D and Rosenfield, A. *Making "Safe Motherhood" A Reality: Report on Year 1.* AMDD Program, New York. May 2000.