“Skilled birth attendance in the developing world in comparison with the developed world. Consequences to the mother and child mortality. Where do we stand nowadays?”

ABSTRACT

The rates of maternal and neonatal mortality in the developing world remain high starring in these sub-Saharan Africa. Tackling the problem has become a race since maternal mortality should be reduced by three-quarters and child mortality under five by two thirds until 2015.To achieve this goal requires the presence of health professionals in childbirth by 90% and direct access to the Basic Emergency Obstetric Care facilities in the case of complications. Nowadays 34% of women give birth without medical professionals. Poverty, lack of education and sex discrimination are among the factors contributing to this situation. The international community must go through the decisions on acts by putting more resources and closer scrutiny and pressure to the proper operation of these governments in developing countries.

Key words: maternal mortality, neonatal mortality, skilled birth attendants, traditional birth attendance, antenatal care, postnatale care, health facilities, developing countries

ΠΕΡΙΛΗΨΗ

Τα ποσοστά της μητρικής και νεογνικής θνησιμότητας στον αναπτυσσόμενο κόσμο παραμένουν υψηλά με πρωταγωνιστή σε αυτά την υπό-Σαχάρια Αφρική. Η αντιμετώπιση του προβλήματος έχει εξελιχθεί σε αγώνα δρόμου, αφού μέχρι το 2015 θα πρέπει η μητρική θνησιμότητα να μειωθεί κατά τα τρία τέταρτα και η παιδική θνησιμότητα κάτω των πέντε ετών κατά τα δυο τρίτα. Για την επίτευξη του στόχου απαιτείται η παρουσία επαγγελματιών υγείας στον τοκετό κατά 90% καθώς και η άμεση πρόσβαση στα επείγοντα σε περίπτωση επιπλοκών. Σήμερα 34% των γυναικών γεννάει χωρίς τους επαγγελματίες υγείας. Η φτώχεια, η έλλειψη εκπαίδευσης και η διάκριση των δύο φύλων είναι μερικοί από τους παράγοντες που ευνοούν αυτή την κατάσταση. Η διεθνής κοινότητα πρέπει να περάσει από τις αποφάσεις στις πράξεις προσφέροντας περισσότερους πόρους και ασκώντας αυστηρότερο έλεγχο και πίεση προς τη σωστή εκμετάλλευση αυτών στις κυβερνήσεις των αναπτυσσόμενων κρατών.

INTRODUCTION

There have been almost twelve years since the United Nations Millennium Declaration was signed and we have only three years to reach the fourth and the fifth goal of it. Between 1990 and 2015 the under five child mortality ratio should be reduced by two thirds and the maternal mortality ratio by three quarters [1,2] Despite the progress that many countries have made, our efforts still have a long road ahead. In 2008, at the recent estimates of World Health Organization [1] we saw that in the low income countries annually a huge number of women still pay a heavy price during delivery by losing to death not only their babies but even their own life. This paper is an attempt to study the cases of this great disparity between industrialised and low resources countries and to highlight the particular role that skilled health workers can play at birth but also at antenatal and postnatal care. It is a common admission that the key of reducing maternal and neonatal mortality is the well-organised

health system with the attendance of skilled health workers at birth and the access to emergency obstetric care facilities on time [3]

At the beginning of the twentieth century, levels of maternal mortality in the vicinity of the modern developed world such as in West Europe and North America, were about to the same, as we find today in the developing countries .Since then, while some countries have managed to greatly reduce maternal deaths, some others continued to have high levels until the Second World War [4]. Several years later, in 1986, according to WHO, it was estimated that more than 500.000 women globally died from maternal deaths each year and 99% of them occurring in low income countries [3]. Eye to the problem, in 2000 United Nations signed the ‘‘8 Millennium Developed Goals’’. The fifth target of them supports the drop of maternal mortality by 75% between 1990 and 2015 and to increase the proportion of birth attended by skilled health personnel [1]. As WHO has defined, a maternal mortality is ‘‘the death of a woman while pregnant or within 42 days after the termination of a pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental causes’’ [5].

The most recent inter-agency report on maternal mortality shows that deaths from maternal causes have declined world-wide by more than one third since 1990 [1]. Specifically, in 2008 there were 358.000 from the 546.000 that used to be in 1990. However, despite this reduction, the disparity between low and high income countries remains as great as it was in 1986. From 358.000 maternal deaths annually we meet 355.000 in developing world and just 3000 in developed [3]. Globally the maternal mortality ratio (MMR) is 260 deaths per 100.000 live-births instead of 400 that it was in 1990. In poor countries we have 290 deaths per 100.000 live-births (447 per 100.000 live-births in urban areas and 640 per 100.000 in rural areas [3] versus 14 deaths per 100.000 live-births in rich countries. Overall, since 1990, maternal deaths worldwide have dropped by 34% and the global MMR has declined by only 2,3% per year, something that is far away from the annual decline of 5,5% required to achieve MDGs [6-3-1]

One third of the maternal deaths in developing world occur in South Asia and more than half of them in sub-Saharan Africa [6]. These regions together account for 87% (313.000 deaths) of global maternal deaths, 30% (109.000 deaths) in South Asia and 57% (204.000) in sub-Saharan Africa. The last one alone had the highest MMR in 2008, 640 deaths per 100.000 live-births from 870 that it was in 1990 [7].Even worse, three countries of sub-Saharan Africa, Chad, Guinea-Bissau and Somalia as well as Afghanistan in S. Asia , have extremely high MMR of 1000 or more deaths per 100.000 live-births [1]. As we can also read in the study of Margaret C. Haggan et al (2010) in 2008 [8] we had more than 50% of all maternal deaths in only six countries, India, Nigeria, Pakistan, Afghanistan, Ethiopia and the Democratic Republic of the Congo which together with Tanzania, Bangladesh, Indonesia, Soudan and Kenya account for 65% of global maternal deaths [1]. Although sub-Saharan Africa suffers from the highest maternal mortality ratio, since 1990, a few countries in this region have dropped their levels, such as Mauritius and Cape Verde that present low MMR (20-29/100.000) and Namimbia and Bastwana which have moderate MMR (100-229/100.000)[1]. In other regions, including Asia, Latin America and North Africa (Egypt) even greater headway has been made.

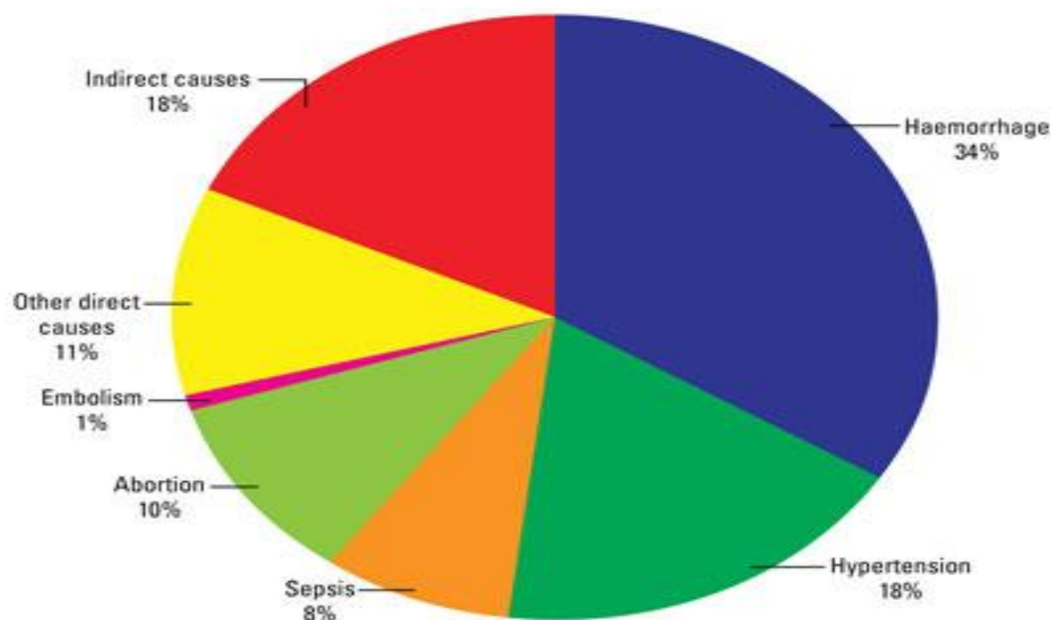
Sub-Saharan Africa plays also a lead role in the adult lifetime risk of maternal death, ‘‘the probability that a 15-years- old female will die eventually from a maternal death’’[1] Specifically, the globally lifetime risk of maternal mortality is 1/4300 in developed countries, while in developing world is 1/120 [6]. In sub-Saharan Africa is 1/16, in Afghanistan 1/11 and in Sweden 1/30.000 for 2008 [9]. Furthermore, in sub-Saharan Africa 9% of all maternal deaths (640/100.000) were due to AIDS. In the absence of HIV there would have been at about 580 maternal deaths per 100.000 live-births instead of 640 in this region [1,10] while globally MMR would have been 206 deaths per 100.000 livebirths [8].

Studies have shown that three fourths of maternal deaths (70%-80%) are due to direct causes [11,12,13] and at about 18%- 20% are because of indirect causes [12] while a percentage of approximately 11% are due to complications of anesthesia, caesarian section or ectopic pregnancy [13].

According to the ICD 10 [14] direct obstetric deaths are ‘‘those resulting from obstetric complications of the pregnancy, childbirth and the puerperium to 42 days’’ while indirect obstetric deaths are ‘‘those resulting from previous existing disease that developed during the pregnancy which was not a result of direct obstetric, but which was aggravated by the physiologic effects of pregnancy, such as cardiac conditions aggravated by pregnancy’’ [15].Of course we should not ignore the deaths of mothers that occur due to unknown causes [16].

In developing countries the most common causes of direct maternal deaths are hemorrhage (24%), usually postpartum, sepsis by infections (15%), hypertensive disorders (12%), especially eclampsia, prolong or obstructed labor (8%), unsafe abortion (13%) and more scarcely, obstetric embolism [17,13,18] while the most common causes of indirect obstetric deaths are anemia, HIV/AIDS, malaria and tuberculosis [17,13,18] . In developed world the most important cause of maternal death is other ‘direct causes’ 21% , which include largely complications during interventions such as those related to caesarian section and anesthesia, followed by hypertensive disorders and embolism [19].

Haemorrage is the leading cause of maternal death, 1997–2007



Source: ‘WHO Analysis of Causes of Maternal Death: A systematic review’, preliminary data, *The Lancet*, 1 April 2006.

WHO recommends that direct causes of maternal mortality could be averted if there were at least four facilities with basic emergency obstetric care and one facility with comprehensive emergency obstetric care for every 500.000 people [20] . Saying BEmOC , we mean the ‘‘the seven interventions that include the use of intravenous/intramuscular antibiotics, oxytocine and anticonvulsant, manual removal of retain placenta and removal of retain products of conception, assisted vaginal delivery and basic newborn resuscitation. CEmOC includes all BEmOC signal functions plus caesarian section and blood

transfusion''[21]. We have to highlight here that BEmOC services can be effective only if they are used and their availability is not poor [20].

Maternal health is an important determinant of child and particularly neonatal survival. Maternal death during delivery is something tragic. Even if it does not cause a neonatal death, it is implicated in significant health problems of child survivors from an obstructed labor (as it is the long-term neuro-developmental injury due to birth asphyxia [22], and reduces the survival chances of other children of the family.

Since 1990 the number of under five child deaths has been dropped to about eight million per year[2] but almost four million of them occur during the neonatal period, the first 28 days of life. 98% of these deaths are concerning the developing countries and the birth at home [23]. More than one quarter of infants die in the first 24 hours after birth and three fourths of neonatal deaths occur in the first week [23]. During the last decade the advances that have been made in neonatal mortality globally, were as low as we could ever expect [2].

Between 1990 and 2009 neonatal mortality did not note a great improvement, mainly in the regions with high neonatal mortality ratio (NMR), although, at the global level neonatal deaths have declined by 28% from 33,2% per 1000 live-births to 23,9% [24]. In 2009 we had 3,3 million neonatal deaths instead of 4,6 million in 1990 [24]. In addition, approximately three millions infants per year were stillborn world-wide, but those deaths are not part of the neonatal mortality globally and they are very difficult to be estimated with accuracy [23]. Globally , 41% of all under five child deaths occur at the neonatal period [24]. The proportion of child deaths in the neonatal period has increased as a consequence of decreasing mortality after the 28 days of life, especially in Africa, where we meet 39,2% increase in annual births between 1990 and 2009 [24] and also a progress in tackling causes of deaths due to infections (such as malaria, measles, pneumonia and diarrhea) in post-neonatal infants and children aged 1-4 [2]. 98% of about 4 million neonatal deaths occurred in developing countries [25] and more than half of all of them (44% approximately) occurred in five countries of the world: India Nigeria, Pakistan, China and D.R. of Congo. While NMRs were halved in some regions of the world , eight countries have risen it, five of which belong to Africa [24]. On this continent which has noted the lowest improvement in neonatal mortality, several countries have made an excellent progress [2] ,and Erithrea with Malawi are on track to achieve their MDG4. Sub-Saharan Africa has the highest neonatal mortality in whole continent [23]. In Asia the average rates are lower but this region accounts for over 60% of the estimated global total, mainly because of the large population and high fertility rate [24]. During 1990-2009, India had the largest number of neonatal death [24].

The majority of newborns in developing world die after delivery at home, usually during the first three days [23] ,where they are cared by relatives, friends, mothers or TBAs [25].The most common causes of neonatal deaths are the complications from preterm delivery (28%), birth asphyxia (23%) and (36%) infections, (pneumonia/sepsis (26%), tetanus(7%), measles, malaria, diarrhea (3%) [24]. In the absence of skilled health workers during pregnancy, delivery and postnatal care, a range of risk factors increase the possibility of child morbidity and mortality. The poor health of mother, the lack of tetanus toxoid immunization and ANC, the high risk newborn care practices and mainly, the poor sanitation at birth, create all the circumstances favouring the neonatal mortality. The situation is aggravated especially by inadequate neonatal care and harmful home practices such as the discarding of colostrum and giving plain water, sugar or animal milk [25], clarified butter (ghee), oil, honey, the application of unclear substances to the umbilical cord such as mustard oil, and the failure to keep the baby warm because of delayed wrapping and immediate bathing [26]. As an answer to the latter, WHO guidelines for substantial newborn care the following: 'hygiene during delivery, keeping the newborn warm, early initiation of breast-feeding, exclusive breastfeeding, care of the eyes, care during illness, immunization and care of low birth weight newborns'. Mother and her family should be prepared to react for the potential danger signs [26]. WHO also emphasises on five cleans during delivery: 'clean place, clean surface, clean hands, clean cord and dressing, and a clean tie' [26].

The situation is considered much more serious when the conceptions are twins or when the caesarean section is needed but access to CEmOBC is difficult or impossible. The rates of

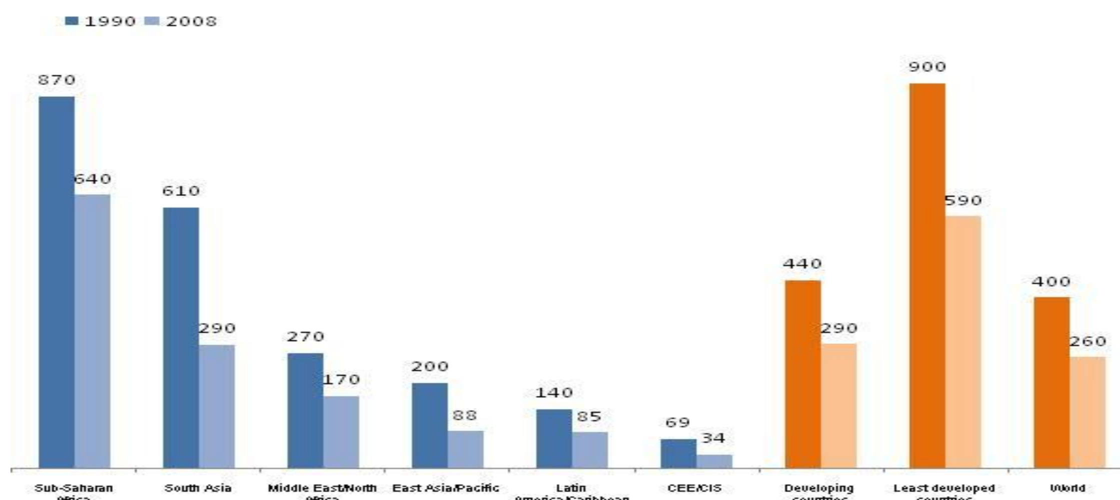
Caesarian Section in developing countries are 2% while in developed world are 21% [27]Multiple births are associated with severe problems for the survival of neonatal health such as birth asphyxia, neonatal sepsis, I.U.G.R., low birth weight, severe hyperbilirubineamia or preterm infants [28] In all these added the lack of prenatal screening for birth defect. U/S, CVS or amniocentesis are tests to be carried out in pregnant women over 35 years old in developed world while in developing countries future mothers are not be able to have these tests due to the cost or the lack of such highly technical laboratory support. In India at about 9000 babies are born annually with thalassaemia [29] .

Throughout this analytical description of the statistical data on maternal and neonatal mortality, the consequences of the presence or the absence of the skilled health workers at birth and of the access or no access to Emergency Obstetric Care facilities are reflected in the numbers. Approximately 74% of maternal deaths [30] and two thirds of neonatal could be averted, if women had access to essential maternity and basic health care services. International community recognises that the presence of a health worker with midwifery skills, who can either provide or ensure access to essential obstetric care, has the most important role in preventing neonatal deaths [11]. Thus, it has set a target for skilled attendance at birth of 80% by 2005, 85% by 2010 and 90% by 2010 [31].

In 2008, globally an average of 65% of births were attended by skilled health workers. Developed countries had over 99% coverage while in developing countries between 1990 and 2008 we met an increase in birth attendance by skilled health professionals from 53% to 63% [13]. Similarly the proportion of women attended at least once during pregnancy by skilled health-care personnel, increased from 64% to 80% [1]. Exceptions to these rates is South Asia and sub-Saharan Africa which have very low attendance at birth, with less than half of the women having a delivery attended by skilled health workers [13]. East Africa had 33,7% coverage ,with 41,2% in West Africa and 46,9% in South Central Asia. It is now commonly agreed that more intensive effort is needed in order to achieve the target of 90% coverage by 2015 [31]. 34% of deliveries take place without SBAs worldwide while 66% of women in developing countries benefit from skilled care during childbirth [6]. Two thirds of them occurred in hospital [32]. Estimates show that by 2030, about 700.000 SBAs will be required to ensure the full coverage of SBAs worldwide [3].

Declines in maternal mortality ratio across all developing regions

Maternal deaths per 100,000 live births, 1990 to 2008



Source: *Trends in Maternal Mortality 1990-2008*. WHO, UNICEF, UNFPA and The World Bank.

WHO in 1990, defined as skilled attendant ‘‘an accredited health professional-such as midwife, doctor or nurse-who has been educated and trained to proficiency in the skills needed to manage normal (uncomplicated) pregnancies, childbirth and the immediate postnatal period and in the identification, management and referral of complication in women and newborns [33]’’.The period required for the training of SBAs is generally at least six months. As WHO supports TBAs , trained or untrained, are not considered as skilled health workers. ‘‘TBAs is a person who assists the mother during childbirth and who initially acquired her skills by delivering babies herself or by working with other TBAs’(Leedam,1985) [11]. They are often older , alliterated women, acceptant and respected part of the community who may be relevant mainly to poor families in rural and remote areas [11]. They do not receive a salary or fee for their services, as skilled health workers usually do, but often accept payment in kind. They provide essential social support to women during childbirth, and look after mother and newborn at the first hours after birth. They do not have scientific knowledge but mainly practical and empirical and they have thorough knowledge of the habits of the community,cultural and religious belief ,elements that play an important role in women’s decision about where, how and with whom to birth. It is unusual for TBAs to deliver more than twenty women in a year(WHO 1990) [11].

Most of them are untrained but in some regions we meet TBAs who have been trained to perform deliveries in compliance with the hygiene, ensuring safety to mother and her child, without applying high risk practices, recognizing danger signs of complications and referring women to emergency obstetric care facilities in time. Even less of them are able to support child health, family planning and health promotion [11].

However, besides SBAs and TBAs, some other categories of birth attendants ‘assist’ women to delivery .They may be relatives, friends or neighbors while some times the future mother gives birth alone. In Senegal there are the ‘matrones’, in Nigeria the ‘auxiliary’ nurses [34] and in Bangladesh the ‘laywomen’[35].

Evidence suggests that having a skilled attendance at childbirth is one of the key interventions for reducing maternal mortality[36]. A good example of this is the fact that the reduction of maternal deaths in North West Europe is attributed primarily to skilled attendance at delivery [20]. However, for having this result , SBAs have to be well trained with wide experience and work, in close collaboration not only with others in the obstetric team or in the health system but also with lay givers TBAs, traditional healers and family members. These lay care givers play an important social and cultural role and often control and facilitate access to skilled attendants and referral care. They can not replace skilled attendants [4] because even though they are trained , they are not good at active management of the third stage of a labor, at manual removing of placenta, at bimanual uterine compression at immediate newborn care and at neonatal resuscitation.

There are two aspects about TBAs and their training. According to the first, even though TBAs are trained, they are not able to recognize signs of complications early, to make a correct diagnosis and take appropriate action for managing complications. The second aspect supports that training of TBAs is necessary where SBAs are scarce [11].

Taking into account the fact that in many poor areas women choose or are forced by social factors to deliver home with TBAs we understand how important is the training of them. In India for instance, a proportion of slum women still prefer to give birth with the TBAs. So the training of TBAs is considered necessary in order for them to monitor the birth effectively and be able to diagnose and safely handle the case of complications [37].

One of the essential difference between SBAs and TBAs is the ability of the former – because of scientific knowledge they have-to diagnose, treat and cure the causes of direct maternal deaths but also to differentiate them by the indirect .The latter many times are overshadowed by direct , not only because of the lack of SBAs but also due to the unexperienced new doctors or midwives [16]. Typical example is the fact that in periods in which malaria is endemic , most maternal deaths are attributed to this infection without having an accurate diagnosis [16].

In addition to the leading causes of maternal deaths, (direct and indirect), related to the health of women, there is a range of social factors that underlie maternal and child mortality.

Lack of female education and empowerment, poor households, distance and lack of transportation, lack of family planning as well as the shortage of skilled birth attendants and lack of medical equipment and drugs, are all determinants that have a negative effect on women's choice about their childbirth. Several surveys have shown "three delays" [38, 16, 39, 30] that prevent a woman to access the health care she needs. ''Delay in seeking medical care, delay in reaching a health facility and delay in receiving medical care at the level of primary health facility'' [39].

In developed countries deliveries are attented by skilled health workers , doctors, midwives and nurses, who have scientific knowledge and experience. They have the appropriate equipment with the latest technology machines (respirators, incubators, ultrasound machine), adequate supplies of drugs and mainly good sanitation. Good roads , adequate and safe means of transportation and referral, well organised health system, sufficient number of scientists and stuff, large and well organised hospitals with hygienic conditions, ensure safety to a woman. Monitoring pregnant women from the first trimester helps health professionals diagnose the problems that probably exist in time and prevent or treat the complications that follow.

Skilled birth workers can really play decisive role in studying and facing the reason that make or force a woman in developing world not to be attended by skilled birth workers at birth.

A large number of women in developing world has been deprived of secondary education and a lower number of them has not even received primary education. Especially those who live in rural areas and belong to poor families cannot usually read or write, they do not have books, radio or TV [40] while most of the times they do not even have electricity. Consequently they do not have any information about sexual health or issues related to pregnancy, delivery, abortion or contraception. Therefore women support that attendance of a skilled worker at birth is "not necessary". This aspect is supported also by their husbands who lack education, too.

In addition, women live in communities where there is no gender equality and they have very low socio-economical status. A woman does not take decision for herself, she is forced to get married at an early age and she has no right to decide freely on the number and spacing on her one's children [30]. Family decision is usually made by men [30]. In the absence of familiarity with her family members, she can not trust her problems to them and she often resorts to wrong choices such as unsafe abortion and unqualified health provider.

Gender equality and education leads to improvement and greater demand by women for freedom to health care, family planning service and safe delivery. Above all, empowered women demand to be respected for their rights in decision making for herself and in feeling safe for herself and for their babies. In a study that took place in Tanzania we saw that single women had more chances to deliver with skilled birth attendance than married women [41].

The choice of women to have delivery either at home or in health facilities, by trained or untrained health workers, is also influenced by their age and the child's birth order [42]. Women about 20 years old or less have much more possibilities to be attended by SBAs compared to those who are 35 or older. Furthermore, women prefer a skilled birth attendant in first pregnancies and births but in subsequent they prefer to give birth alone at home [42].

Very important role for the choice of SBAs plays the economical status of the family. Rich and urban women do not have any problems to choose the delivery in hospital, public or private and if they want, they can pay for SBAs at home. The health insurance is a great motivation for women to go to hospital [43] for delivery. On the contrary, poor women who most of the times live in very bad conditions, with no clean water, no food, no toilet facility or electricity [44], do not have money for paying skilled health workers [45] at birth. They are not fed correctly and they are not able to buy the necessary supplements or the medicines they need for pregnancy. Especially women who live in rural areas need money for having a safe transportation to health facilities. A lot of families have a plan for saving money so when time comes they can pay for both SBAs and. transport [46].

However, money cannot always solve the problem of the distance from home to health facilities. Even if they have money, they may not find media of transportation. Women in

some remote areas have to travel more than two weeks to access SBAs [40]. Ambulances are not available or they are damaged. Health structures are often destroyed or shut down, supplies of medicine and equipment are cut off and skilled personnel are very few [17]. The problem of the poor availability of clean water and mainly safe blood is usual [43]. Moreover, the shortage of skilled health personnel aggravates the situation [47]. Skilled birth attendants after their studies choose to leave rural areas and seek a better life to urban areas or other countries with safer and wealthier conditions [3]. Several times women lose their life because the medical staff is not experienced enough to do the right diagnosis.

On the other hand, having a childbirth at home with a TBA , means that they do not have to pay SBAs and they do not need to leave their house, their farm or the other children that may have. They stay home and they work until the last period of pregnancy. They prefer to deliver at home which is "easier" and "more convenient" and they are more familiar with traditional birth attendants.

Of course religious and cultural beliefs have also a great influence on women's delivery as in such restricted communities women want to be attended only by female doctors or midwives [34], something that they cannot always have in a hospital. The excision that takes place in some African and Asian countries is responsible in many cases, of sepsis and in countries that sex disparity exists (like Bangladesh) [36] boys are more likely to receive life-saving interventions than girls, something that affects neonatal mortality.

Another determinant for the presence of qualified stuff at childbirth is antenatal care which according to WHO the minimum required is four antenatal care visits.[33]. The truth is that several studies have shown that there is a positive coloration between number of antenatal care visits, having skilled birth attendance and receiving postnatal care [4]. Antenatal care visits expose the woman to more health education and counseling by skilled workers which are both likely to increase service utilization [41] especially if the attendant at the ANC consultation is the same who offers care for childbirth. Skilled attendance during delivery was 3 times higher in well prepared mother compared to less prepared mother [37]. Pregnant planning such us number of pregnancies, intervals between them, safe contraception, safe abortion and immunization as tetanus toxoid, prenatal tests screening as well as planning for saving money, transportation or emergency referral to health facilities. ANC and skilled health workers play a very important role improving the relationship between woman and her husband. The discussion between pregnant women and their husbands or partners on where to go for delivery increased the chance for women to use skilled attendants for delivery [44].

In the context of family planning which is estimated to avert 32% of maternal deaths and 10% of childhood in countries with high birth rates [3], couple is informed by SBAs for important issues such as the number of the children they have and they still want to have, the causes of such decision and the consequences of them, the interval between pregnancies and the effects on mother and newborns, the types of contraception as well as the safe abortion only as a last enforced solution. Typical case is that of refugees women who are raped systematically as a weapon of war. Abortion in such cases is legal but victims and health professionals do not know it, so women resort to unsafe abortion [48]. The high number of pregnancies in combination with the old age of the mother is a high risk factor for maternal and neonatal mortality as well as the less than six months intervals between pregnancies [49].In some countries this fact makes women feel ashamed [50] because of the cultural beliefs. On the other hand surveys have shown that the use of contraception reached reducing maternal mortality as occurred in Bangladesh [51] while in sub-Saharan Africa 30.000? women died from unsafe abortion. The last region has the least progress in the reduction of MMR and a contraceptive prevalence of 22% opposed to 86% we meet in east Asia (1). Women aged 15-49 who take contraceptive measures have increased their proportion from 52% to 62% between 1990 & 2008 (1) although utilization of contraceptive influenced by education, cultural beliefs and economical status.

DISCUSSION

Talking about statistics on the global map we understand how difficult is the recording and the processing of them. Inspection of such magnitude requires a lot of money, qualified staff, appropriate equipment and long time for data collection. Because of all the above it is not possible to repeat in less than five years. In this paper the most recent official statistic we have on maternal and neonatal mortality are from 2008 and 2009 respectively. From this, we form a picture of where we are now and where we have to reach in order to achieve or even approach the objectives of the global community. We know that ANC, SBAs and the direct access to the Emergency Obstetric Care facility are the three essential steps for reducing maternal and neonatal mortality and morbidity. A range of measures can make the woman of developing world feel accustomed to SBAs and to the idea of the hospital and to support what is right for her and her child's life.

Knowing the social conditions in the strict and closed societies of developing countries, SBAs should introduce regular visits even in the most remote areas, offering information on issues of sexual health and reproduction, pregnancy, childbirth and puerperium, contraception, vaccination and mainly sanitation. They must cooperate with NGO, local authorities, TBAs and husbands. Despite the ambiguities that separate SBS and TBS, it is very important for them to work together some times in favor of women. SBAs need TBAs wherever they cannot be present and also to learn from them how to approach and support women in the community [52].

Of course TBAs should be trained by SBAs in recognizing signs of danger, in using misoprostol and oxytocine for preventing postpartum heamorrhage, and in transferring the woman to emergencies when it is necessary. The high risk newborn practices should be abolished and TBAs must comply with the directions of the WHO but it is most important that they all have to learn to wash their hands and work in good sanitation during delivery or postnatal care. SBAs should drop the level of their fees and even better, they should offer their services voluntarily to poor people.

Graham and Campell reiterate that "health center intrapartum care is the most promising strategy for reducing maternal mortality in time to achieve MDGs"[53] At national level , prenatal and postnatal control centers should be created even in the most remote areas which will provide free services to poor people. These centers should be equipped with sufficient numbers of qualified staff and adequate material and drugs but mainly they will have clean water and electricity. The improvement of roads and means of transportation will make women attend the ANC . The construction of schools and the promoting of female education, the increase of skilled health workers and the incentives that will be given to them in order to remain in rural area, the improvement of roads and means of transportation are just some of what is needed to be made at national level. Campaigns on contraception, immunization of women and exclusive breast feeding can be an especially effective tool for informing womens and their families.

The international community in cooperation with NGO should intensify its efforts to force more the governments of the developing world to meet their obligations. Increasing investment in these countries is necessary. Incentives also should be given to skilled health workers in the developed world, financial and professional, to offer their services for some time in those regions of the world.

CONCLUSION

Shocking numbers, inconceivable events that resemble the data for the developed world, is part of modern reality for a large section of the globe. The global community can and must put an end to such a tragic reality that shames the modern world. Dr. Mahmoud Fathalla, writes on the ''Midwifery Today'' magazine: ''Women are not dying because of diseases we cannot treat; they are dying because societies have yet to make the decision that their lives are worth saving''. The truth is that the decisions were taken in the 2000. However, promises and

late steps can not save the piece of the planet that is slowly dying. Decisions must be made and the United Nations should act fast. The international community can and should assist developing world by giving to health professionals all the incentives, resources and supplies needed to respond to the sanitary and social role by helping as much as they can to reduce maternal and neonatal mortality. Skilled health workers at birth may be the key of maternal mortality but this ‘‘key’’ cannot close permanently the door to the maternal and child deaths unless the International Community previously manages to reach or achieve the other three development targets by tackling the ‘3E’ [54] for women ,education, empowerment, economical status, which deprive the woman away from her right to health.

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