Saving the Lives
of Mothers & Children
Rising to the Challenge

Somalia

I. Introduction

Somalia is located in the Horn of Africa and covers a surface area of 637 657 km^2, bordering Djibouti, Ethiopia and Kenya, with coastline on the Gulf of Aden and the Indian Ocean. Since 1991, Somalia has been in a state of violence and civil strife. As a result, social and economic infrastructure has collapsed and hundreds of thousands of people have been displaced. Security continues to be a fundamental concern especially in the South Central part of the country. The country now consists of three zones: Northwest Somalia (NWS), Somaliland; Northeast Somalia (NES), Puntland; and South Central Somalia (SCS). Each has its own administration[1]. Somalia has an estimated population of 9.3 million inhabitants, with women age 15-49 years representing close to half of the population (45.5%); it is a young population with 64% being younger than 25 years[2]. Only 25% of women 15 years old and above are literate. It is estimated that 1.6 million of the population are displaced across the country[3].

Socio-demographic characteristics

The 9.3 million population is very young: 64% less than 25 years and 18% less than 5 years[1]. The total fertility rate in Somalia remains very high at 6.4 children per woman, with noticeable differences among women with different socioeconomic and educational background or residence[2]. The adolescent birth rate is also very high at 123 births per 1000 women aged 15-19 years.

Total estimated under-5 population (000) [2010][1]	1667
Population growth rate[2] [2009]	2.6%
Estimated number of births (000) [2010] [1]	429
Percentage of population that is rural (2009)[3]	63%
Birth registration coverage[3]	3%

[1]Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects: The 2010 Revision*, http://esa.un.org/unpd/wpp/index.htm (accessed on 7 October 2012)
[2]WHO Regional Office for the Eastern Mediterranean, *Demographic, social and health indicators for countries of the Eastern Mediterranean, 2012*, based on country reports
[3]WHO. *World Health Statistics 2012*

There is no information available for Somalia on the UNDP human development index or the percentage of the population living below the international poverty line of US$1.25 (in purchasing power parity terms) a day[4].

The country has the highest total fertility rate among the countries in the Eastern Mediterranean Region. It is also among the 10 countries in the Region with highest child and maternal mortality rates. Despite the efforts of the health authorities, Somalia is falling behind the Millennium Development Goals (MDGs) which the international community fixed for 2015.

This document is meant to provide an analysis of the current status of maternal, newborn and child health in the country to highlight the reasons why the country is not on track to achieve MDGs 4 and 5 if current trends continue, and suggest possible solutions and the way forward to accelerate the progress towards achieving MDGs 4 and 5.

II. Maternal and child health situation analysis

II-1 Health system

The zonal Health Authorities are developing their own health sector strategic plans for 2013-2016[1]. They have identified maternal and child health as one of their priorities and will work with their health

[1] Country Cooperation Strategy for WHO and Somalia 2010–2014,EMRO
[2] Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects: The 2010 Revision*, http://esa.un.org/unpd/wpp/index.htm (accessed on 7 October 2012)
[3] Office for the Coordination of Humanitarian Affairs (OCHA) 2009
[4] Human Development report, UNDP 2012

partners on an Essential Package of Health Services (EPHS) to reduce maternal, newborn and child mortality in the country.

Somalia's public health care system is tiered, comprising hospitals, referral health centres, health centres, and primary health units. Hospitals and referral health centres are limited in number; health centres and primary health units are inadequately distributed in the three zones and within each zone. Health facilities operate using vastly different standards, and often cannot provide a minimum package of primary health care services according to the EPHS.

While funding for health is increasing in Somalia, the sector is entirely dependent on external resources. Health finances increased five fold from US$ 23 million in 2000 to US$ 103 million in 2009[5]. Between 2007 and 2009, donor finances averaged $100 million annually; Somaliland's average budget contribution to health over the same period was, on average, US$ 1 million a year; Puntland contributed US$ 300 000 annually. While these allocations are comparatively very small, allocations for health in Puntland and Somaliland are increasing nominally.

Overall coverage with essential primary health care services is low, especially for rural and nomadic populations, resulting in hardly any service utilization by remote communities. Health facilities in urban areas are mostly run by nongovernmental organizations and private health providers and are easy to access.

Similarly, most health personnel are concentrated in major towns, leading to shortage of qualified workers in rural areas. The public health care system operates in a fragmented manner, maintained largely by medical supplies provided by UNICEF, other United Nations agencies and international nongovernmental organizations.

In the absence of an efficient and adequate public health care system, the private sector has flourished but remains unregulated with poor quality of services and poor access to the rural population. Somalia's essential medicines programme ceased with the collapse of the central government in 1991. With support from WHO, the Somali Essential Medicines Programme has been put in place but much work needs still to be undertaken with substantial strategic technical support from WHO.

Access to essential medicines, particularly through public health services, is low and variable depending on the local presence of donor-supported programmes. Currently, health centres and primary health units largely depend on essential medicines and supplies, in the form of pre-packed kits, provided by United Nation agencies. The role of the health authorities is mainly limited to coordination. Medicines are frequently in short supply at service delivery points.

Regarding immunization services a comprehensive cost analysis was conducted in 2011, while developing the country's multi-year-plan. With the planned introduction of DTP-HepB-Hib vaccine into the routine immunization schedule the total resources required for the five years, 2011–2015 were estimated at US$ 106.96 million with an annual average of US$ 21.4 million per year.

Most of the infrastructure was looted or severely damaged, with most trained health personnel having left the country during the time of the conflict. Some services have been rehabilitated with the help of the donor community and diaspora. Most people choose to go to traditional and religious healers, private health clinics, pharmacies and other agents, in spite of the poor quality and expensive services and medicines offered by these outlets.

The health sector suffers severely from the lack of skilled and qualified staff, structural fragmentation, insufficient salaries, and weak supervision of health services and management structure of the health system. There is no budget to recruit newly trained staff from nursing, midwifery and medical schools; since there are no proper structures and procedures, there is no health workforce development policy or plan, no job descriptions, no formal in-service training or career development path, and no mechanism for performance assessment.

[5] The World Bank 2011, *A decade of aid to the health sector in Somalia 2000-2009*

There is a grave shortage of qualified professional health workers. The majority of those professionals that do exist are clustered in major urban conurbations. In rural areas public services are reliant on auxiliary staff, community health workers and traditional birth attendants, most of whom are inadequately trained for their job and for whom salaries are either absent or extremely low. In urban areas health staff are also poorly and irregularly remunerated and hence commit limited time to their public duties.

Training results in substantial numbers of new nurses and even some doctors entering the workforce, but very few work for the public health sector. The most recent estimates show that the average health workforce ratios are very low in Somalia: for 10 000 population there are 0.3 physicians, 0.8 nurses and midwives (2009)[6]. There is an acute shortage of midwives, reflected in a ratio of 2 midwives per 100 000 population.

II-2 Maternal, neonatal and child health (MNCH) policies and strategies

The health of women and children is the key to progress on all development goals; investing more in their health will help build peaceful, productive societies and reduce poverty. Acknowledging this fact, the newly adopted Constitution in Article 28 states that "mother and child care is the legal duty of the state". A national immunization policy has been developed and is being revised to provide clear policy and strategic directions. Currently, the country is finalizing its National Health Sector Strategic Plan (HSSP). Each of the zones has been working on its own zonal strategic plan. The country has committed itself to undertake a review and update of the Somali Reproductive Health Strategy and Action Plan (2010-2015).

Among the policies reported by the Countdown initiative, the policy on low osmolarity oral rehydration salts (ORS) has been adopted as well as the policy on community treatment of pneumonia with antibiotics. These policies have been partially implemented. The following policies reported by the Countdown initiative have not been developed or adopted by the country:costed national implementation plan for MNCH;

- international Code of Marketing of Breast-milk Substitutes;
- introduction of rotavirus vaccine;
- introduction of pneumococcal vaccine;
- notification of maternal deaths;
- maternity protection in accordance with ILO Convention 183.

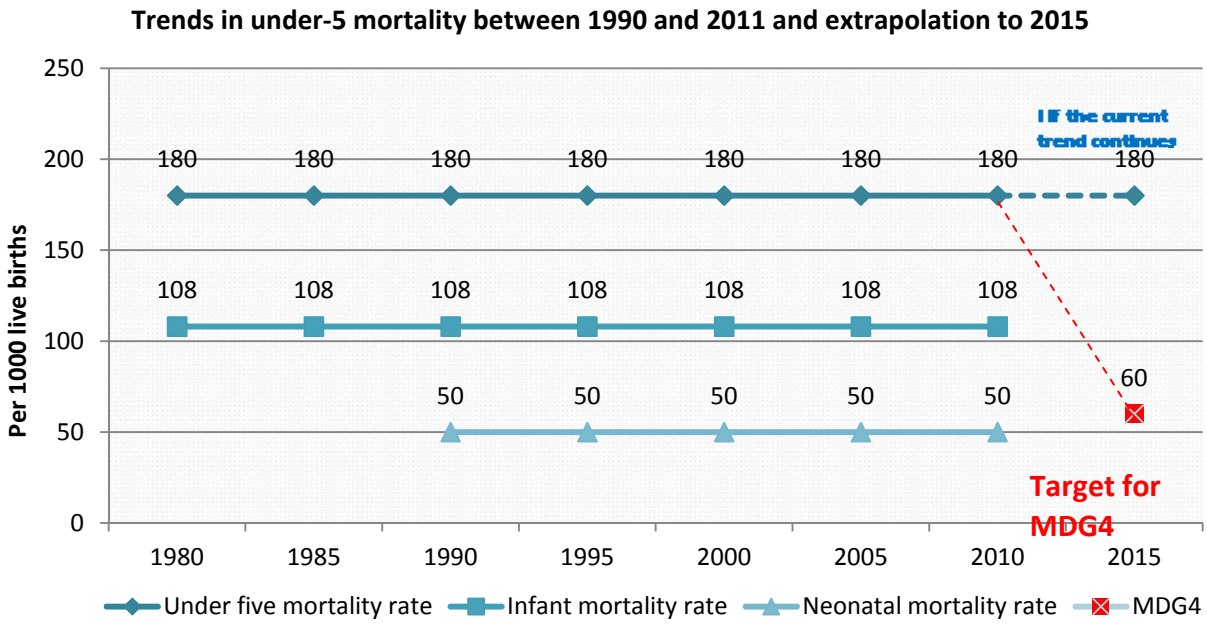
II-3 MNCH current status

II-3.1 Maternal, newborn and child mortality

According to estimates by the Inter-Agency Group for Child Mortality Estimation (IGME), under-5 mortality rates (U5MR) in Somalia have remained constant since 1985. U5MR is among the highest in the world (180 deaths per 1 000 live births).

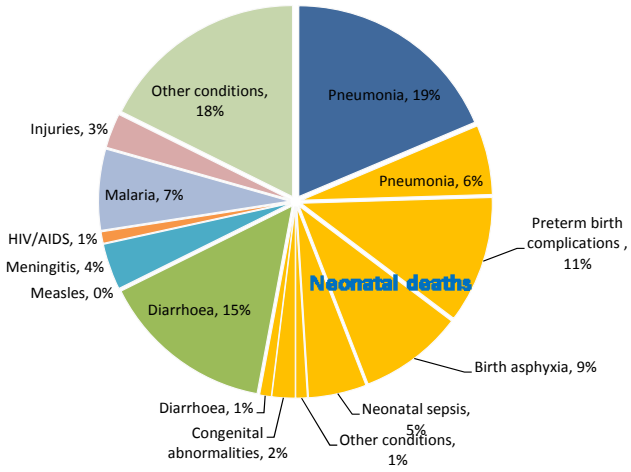
According to the MICS survey carried out in Somalia in 2006, the under-5 mortality rate was very high in all the three zones surveyed, with small differential between urban and rural areas and poorer (60%) and richer (40%) households. Disparities are more marked between geographical areas; in SCS, mortality was 27% higher than in NWS. In Somalia, 29% of under-5 deaths occur in the neonatal period and 71% in the post-neonatal period.

[6] WHO Regional office for the Eastern Mediterranean, *Demographic, social and health indicators for countries of the Eastern Mediterranean, 2012*, based on country reports



Source: United Nations Inter-ag ency group for child mortality estimation (IGME*)- Levels & Trends in Child Mortality, Report 2012* - WHO / UNICEF / World Bank/ UNDP and independent experts. These figures are computed by the UN agencies and are not necessarily the official statistics of the Member State, which may use alternative methods of estimation of mortality. All Member States have undergone an official country consultation on these estimations.

Infectious diseases such as pneumonia (25%), diarrhoea (16%), malaria (7%) and neonatal sepsis (5%) accounted for more than half (53%) of the deaths that occurred among children under 5 years in Somalia in 2010. Prematurity (pre-term births), birth asphyxia and neonatal sepsis are leading causes of neonatal death.



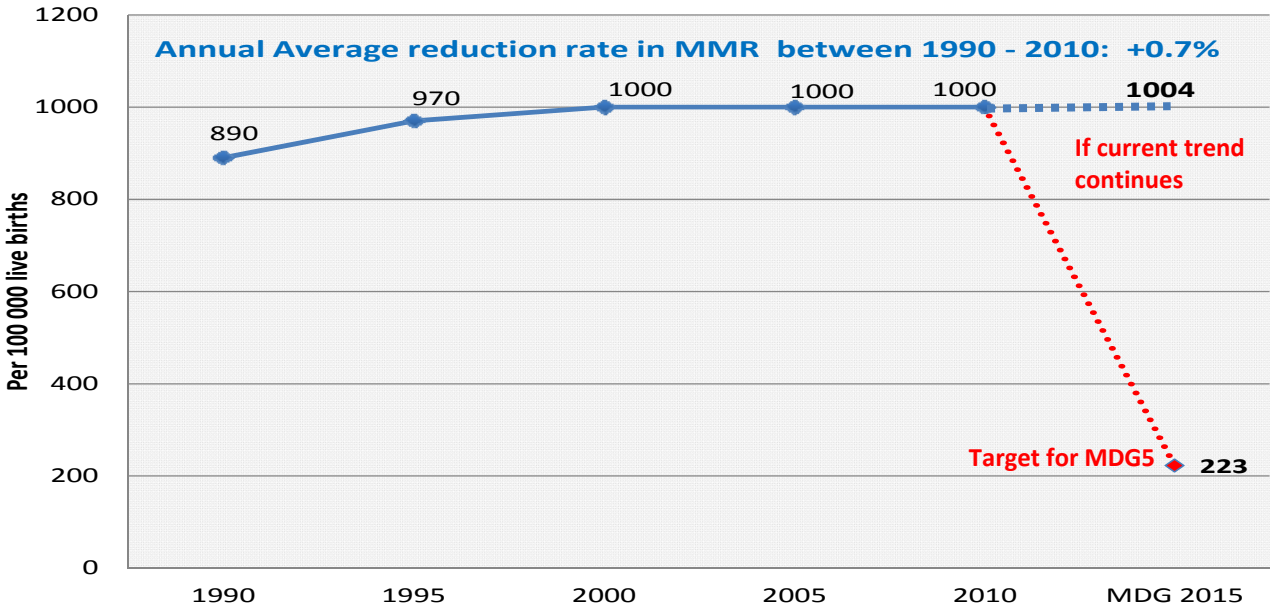
Causes of under–5 deaths

Source: WHO/CHERG 2012, 2010 data

Maternal mortality in Somalia remains exceptionally high, demonstrating no progress during the past twenty years from 890 maternal deaths per 100 000 live births in 1990 to 1000 maternal deaths per 100 000 live births in 2010 [7].

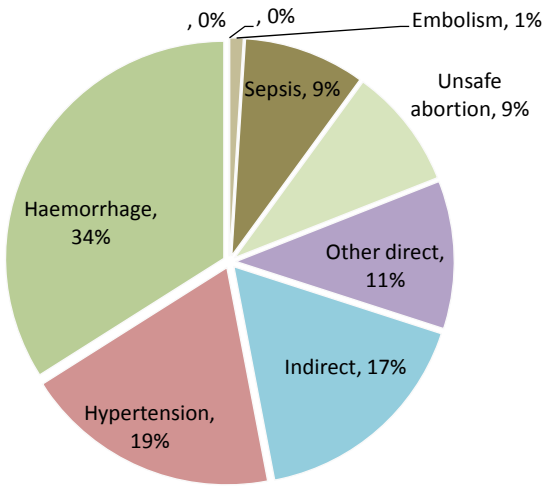
[7] Trends in Maternal Mortality: 1990 to 2010. WHO 2012

Trends in maternal mortality between 1990 and 2010 and extrapolation to 2015



Source: Trends in maternal mortality: 1990 to 2010. WHO 2012

Obstetric haemorrhage is the leading direct cause of maternal death, accounting for one third of the maternal deaths in Somalia. The second leading cause is pregnancy induced hypertension/pre-eclampsia followed by prolonged obstructed labour, infections and indirect causes, including anaemia in pregnancy, and others. However, maternal death due to pregnancy-induced hypertension is on the rise in the country.



Causes of maternal death

Source: WHO 2010

II-3.2 Maternal, newborn and child morbidity

Malnutrition among under-5 children is one of the main health problems in Somalia and increases the risk of mortality. Of under-5 children, 42% are stunted in Somalia, 13% wasted and one in every three (33%) is underweight[8]. The prevalence of malnutrition increased between the MICS 1999 and 2006.

[8] WHO Global Database on Child Growth and Nutrition (www.who.int/nutgrowthdb/database/en ; accessed on 07.10.2012)

Maternal:	
Anaemia in pregnant women[1]	50.0%

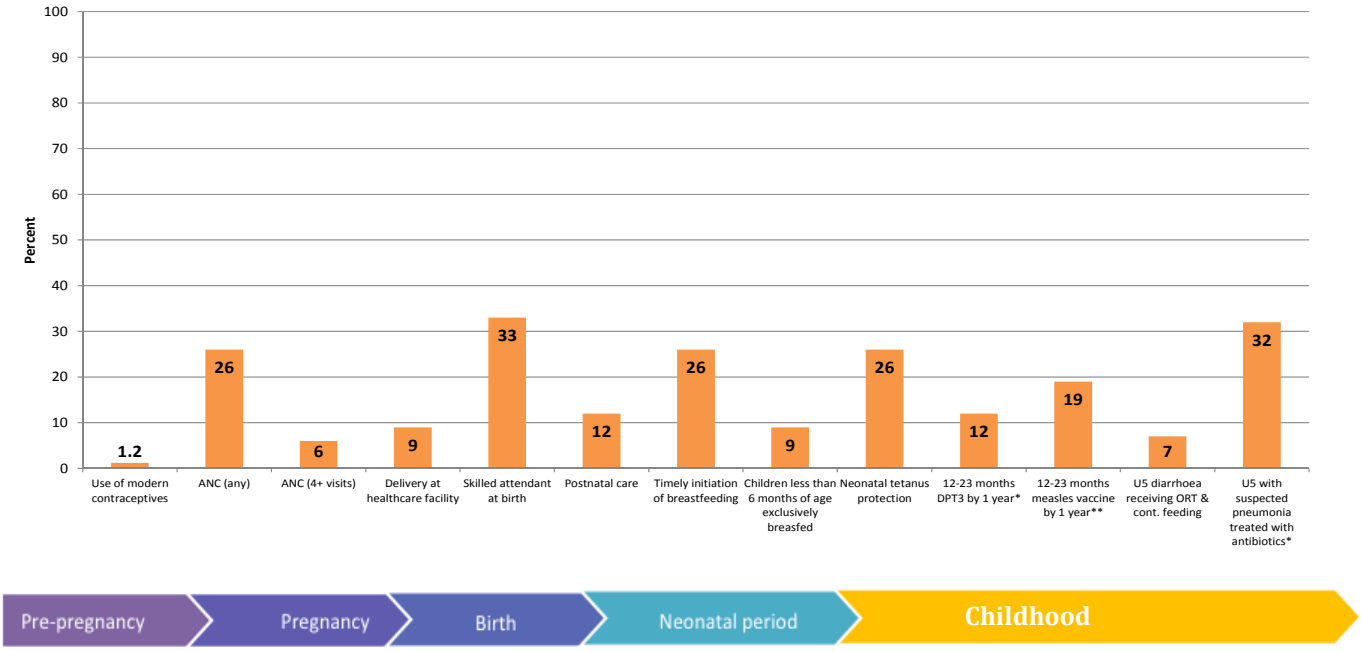
Nutritional status in children under 5[3]	
Stunting	42%
Wasting	13%
Underweight	33%

[1]WHO Regional Office for the Eastern Mediterranean: Regional Health Observatory: Website: www.http://rho/rhodata/ accessed on 27 January 2013

[3] WHO Global Database on Child Growth and Nutrition (www.who.int/nutgrowthdb/database/en ; accessed on 07.10.2012)

Very high numbers of pregnant women in Somalia suffer from anaemia. In addition, complications related to female genital mutilation (FGM), fistula, uterine prolapse, reproductive tract infections and infertility are among the common morbidities in pregnant women.

II-3.3 Coverage indicators across the continuum of care



Source. MICS Somalia 2006

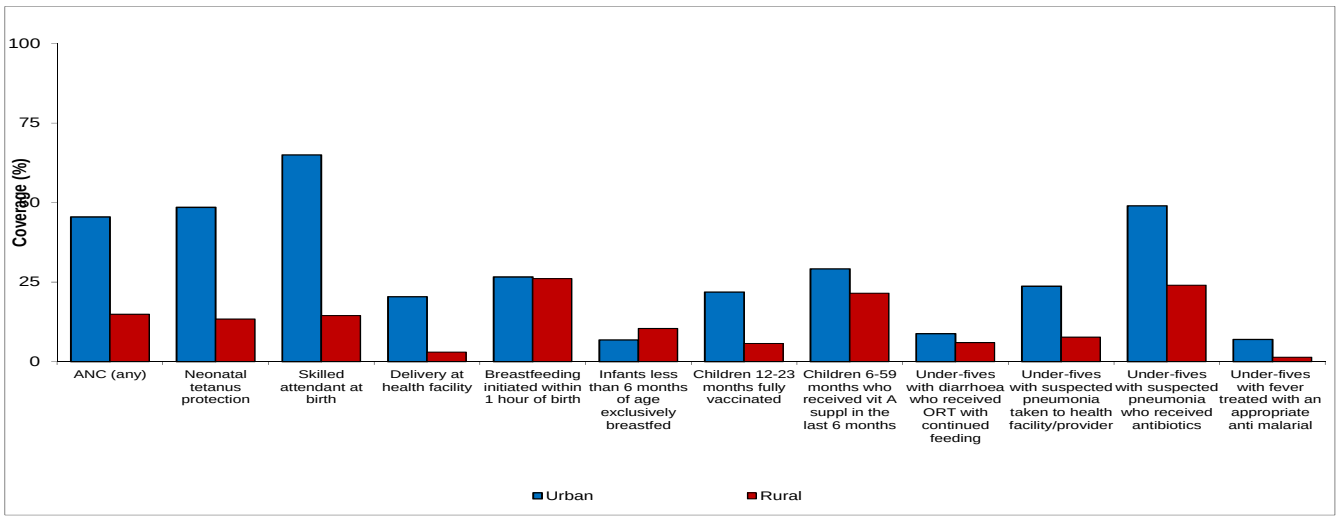
Coverage rates of key reproductive, maternal, newborn and child survival interventions were very low (<35%) in Somalia, according to MICS3 (2006)[9]. Interventions which had less than 10% coverage included use of modern contraceptives, at least four antenatal care visits, delivery at health facility, infants <6 months exclusively breastfed, under-5s with diarrhoea who received oral rehydration therapy (ORT) with continued feeding. Only treatment of under-5s with suspected pneumonia with antibiotics, skilled attendance at birth and any antenatal care (ANC) visits had more than 30% coverage rates.

The comparison between data from MICS 1999 and 2006 shows also a decrease from an already very low coverage for some key interventions. For example, coverage rates of under-5 children with suspected pneumonia that were taken to an appropriate health facility/provider declined from 86% in 1999 to 13% in 2006.

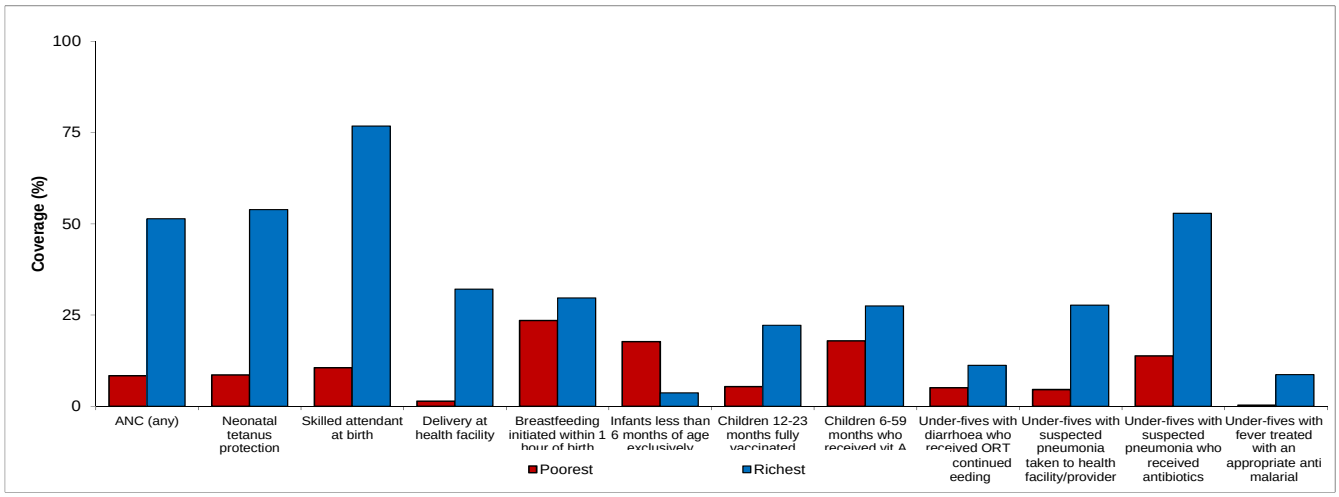
II-3.4 Inequities in coverage of indicators across the continuum of care

For most maternal and child health indicators, except for breastfeeding, coverage was higher in urban than rural areas. For maternal and newborn health care interventions, there was a 7-fold difference in delivery at health facility and a 5-fold difference in skilled attendance at birth. For child health intervention there was a 4-fold difference for neonatal tetanus and more than a 2-fold difference for under-5s with suspected pneumonia taken to a health provider.

[9] MICS3 Somalia, 2006



The coverage of key child survival interventions during the continuum of care in Somalia shows significant inequities between children in the highest wealth quintile as compared to those in the lowest quintile. For maternal and newborn health care interventions, there was a 7-fold difference in skilled attendance at birth and a 4-fold difference for antenatal care (any visit). For child health interventions, there was a 4-fold difference for under-5s with suspected pneumonia who received antibiotics.



II-4 Towards MDGs 4 and 5

Somalia's situation has hampered efforts to reduce maternal and child deaths, with mortality rates which have remained stagnant over the past two decades. However, with the main support of partners including United Nations agencies and nongovernmental organizations, Child Health Days were conducted in form of campaigns to implement a package of cost-effective interventions.

II-4.1 Child health

A range of cost-effective and simple interventions is being used to address the major causes of child mortality.

Package of key cost-effective child health interventions implemented at PHC level

- Child case management:
  - pneumonia case management and prevention
  - diarrhoea case management and prevention
  - malaria case management and prevention
  - malnutrition case management
- Early initiation of breastfeeding
- Promotion of exclusive breastfeeding
- Promotion of sound complementary feeding
- Improving care-seeking behaviour
- Increasing immunization coverage
- Vitamin A supplementation

This package of interventions is implemented:

- Partially at PHC facilities with concerns on the quality. The implementation coverage is generally low and there is variation among the three zones.
- Based on the experience of the successful implementation of measles catch-up campaigns; Child Health Days (CHD) have been conducted twice a year in all accessible areas of Somalia. The goal of CHD was to enhance child survival in Somalia, by reducing morbidity and mortality levels in under-5 children, through reaching all children. CHD include the implementation of selected interventions from the package: immunization, nutritional screening, vitamin A, de-worming, ORT and Aqua tablets. CHD have been the single most productive national campaigns for child health; and have been an operational principle in this war-torn country. CHD have reached about 1.5 million under-5 children since starting in 2009 with basic vaccination and nutritional interventions. In 2013, the impact of CHD will be enhanced by the inclusion of pentavalent vaccine in the package.
- At community level: services delivered by community health workers (ICCM), including community case management of pneumonia, diarrhoea and malaria. The implementation of this package is very limited in the three zones.

In general, the implementation coverage of these interventions is very low and not sustained due to their implementation in the form of campaigns largely funded by donors and other stakeholders. The extreme shortage of essential medicines and qualified staff are major challenges to delivering any type of services to under-5 children and their mothers.

Despite the recent improvement, DTP3 coverage continues to be very low in Somalia. UNICEF estimated DTP2 coverage to be 55% in 2012.[10]However, Somalia has been polio-free since March 2007 Somalia. With the massive population displacement as a result of droughts and internal unrest, Somalia was exposed to a huge measles epidemic with >17 000 cases in 2011. With GAVI support, Somalia will introduce pentavalent vaccine in April 2013. However, this needs technical and financial support from WHO, UNICEF and other partners.

II-4.2 Maternal health

The package of interventions accorded to the maternal and neonatal health, includes the following interventions:

- antenatal care
- treatment of malaria, hypertension/pre-eclampsia, urinary tract infection and anemia in pregnancy
- tetanus toxoid (TT)
- safe and clean delivery
- postnatal care
- provision of basic and comprehensive emergency obstetric and neonatal care
- birth spacing which is very limited.

[10] The state of the world's children 2012, UNICEF

This package has been implemented at health care facilities, and TT mainly in campaigns. These are accompanied with activities for raising community awareness about life-saving practices.

Both pre-service and in-service training of midwives and training of Community Midwives have been taken place to increase the rate of skilled birth attendants in the country and improve the life of mothers and newborns.

II-4.3 Can Somalia reach the targets set for MDGs 4 and 5 by 2015?

Given the lack of a significant decline in mortality rates, the average annual rate of reduction (AARR) required to reach MDG 4 between 2011 and 2015 is 27.5%, which is an extremely high rate. If no reduction occurs, in 2015 the under-5 mortality rate in Somalia will be three times higher than the target. Similar considerations apply to maternal mortality. Somalia will be most unlikely achieve MDGs 4 and 5.

III. Feasibility analysis

- Over 20 years of instability have led to very weak health systems. There are however, improvements under way in all zones with the recovery and strengthening of their health systems with emphasis on maternal and child health services.
- Most of the health infrastructure has been destroyed due to the conflict situation.
- The unstable security situation is a major challenge to strengthening health systems and consequently the provision of health services, in some areas.
- Extreme shortage of qualified workforce makes it very difficult to provide the services to mothers, newborns and children with the quality of services required to reduce mortality.
- Shortages of medicines and vaccines, medical supplies and equipment are another major problem, due to transport and distribution challenges, to effective treatment of children and mothers and prevention of deaths, including in remote and rural communities.
- Besides the need for improving the security situation, huge investments are required to strengthen the health system and produce the required qualified human resources in all zones. The estimated level of scaling up requires huge amount of funds and strengthening of management capacity.
- Advocacy, strong collaboration and coordination among the different partners will improve the flow of funds to the country.
- Reaching higher levels of vaccination coverage is rather difficult, particularly in the areas of conflict and where security is an issue.
- Child health interventions have been mainly implemented during the child health days (CHD) which are campaign-based because of the weak health system and difficult security situation. These are not sustainable and thus their impact on reducing children and maternal deaths will be limited. New approaches aiming at strengthening the health systems in the different zones are being developed holding more promise for the future.
- Besides CHD, community case management is another approach to increase access to services. It requires long-term commitment with adequate financial support for regular medicine supplies, incentives and supportive supervision to achieve wide coverage. A pilot Integrated Community Case Management (ICCM) project has started, although on a small scale. Moreover, this approach requires policy decisions and good coordination between health authorities and their partners for implementation.
- While child and maternal health services are provided at health facilities, these are limited and inadequate.
- The lack of community awareness in relation to maternal and child health practices is a major factor that affects the progress in improving maternal and child health indicators.

IV. 4 Is it achievable?

With the current trends of mortality, and funds and human resources allocation, Somalia is most unlikely to achieve MDGs 4 and 5. The renewed commitment and concerted efforts of the Government in

collaboration with donors and health partners to accelerate the implementation of the cost-effective evidence-based packages of interventions are key to saving more lives of mothers and children and to moving towards the achievement of MDG 4 and 5.

V. Conclusions: key drivers

With the active support of the international community, the country is aiming to accelerate the reduction of under-5 and maternal deaths by scaling up interventions in light of MDGs 4 and 5.

This acceleration requires:

- Under Ministry of Health leadership, strengthening partnerships and coordination with concerned stakeholders, including the private health sector, to contribute to one national plan for MNCH and to achieve the related targets.
- Rehabilitating of the health systems by focusing both on the primary health care and referral levels for improving the continuum of care.
- Setting policies and plans for qualified health workforce production – including skilled birth attendants – and employment of health staff according to the population needs.
- Developing standard protocols of care for maternal and child health (EPHS) to be implemented throughout the health system as it develops and expands and used across training courses consistently.
- Moving towards provision of sustainable services for mothers and children, especially in the rural and remote areas. This could be coupled with scaling up ICCM which should rely on good quality training of community health workers and setting up systems and processes for supplies, incentives, monitoring, supervision and evaluation of IMCI.
- More focus on routine immunization to improve the current very low coverage through proper implementation of the Reaching Every District (RED) approach and implementation of high measles follow-up campaigns integrated with other child health interventions in the form of Child Health Days.
- Strengthening of the Ministry of Health EPI units in the different zones to gradually take over the management of the immunization programme.
- Promoting exclusive breastfeeding and early initiation of breast feeding within one hour of delivery.
- Urgently improving procurement and distribution of medicines, vaccines and commodities which are key to improving the services delivered to mothers and children.
- Improving teaching standards of pre-service and in-service training and considering an accreditation system for teaching institutes.
- Through health information, education and communication, contributing to increased service utilization and better awareness about health care for mothers and children in communities in rural, nomadic and urban settings.
- More commitment and coordination of the international community and key stakeholders, including the private health sector, to assist Somalia in building the required health infrastructure and strengthening the health workforce.
- Advocacy for substantial investment for rebuilding and strengthening health systems, including infrastructure and human resources for health which are crucial.