Saving the Lives of Mothers & Children

Rising to the Challenge

Djibouti

1. Introduction

Djibouti is a country in the Horn of Africa. The total population is estimated at 891 423 (2012), with women aged 15-49 years representing more than half (25%). It is a young population with 57.4% being less than 25 years of age[1]. The large majority of the population (70.64%) is urban[2], and much of it lives in the capital. The life expectancy at birth is 52.9 years[1]. 80% of the national economy is based on services with a strong presence of the informal sector. Food insecurity and generalized vulnerability due to unemployment, rural migration, combined with periodic migration from neighbouring Somalia and Ethiopia, led to a humanitarian crisis in 2011 for which the Government and United Nations partners launched an appeal.

Socio-demographic characteristics

The 891 000 population is young: 11.4% less than 5 years of age, 36% less than 15 years old and more than half (57%) less than 25 years. Fertility levels have slowly declined in Djibouti during past three decades, changing from a very high 6.1 children per women in 1990 to 4.2 children in 2002 [1]

Total estimated under-5 population (000) [2012][2]	101.6
Population growth rate[3] [2009]	2.9%
Estimated number of births (000) [2011] [2]	33.7
Percentage of population that is urban[3]	70.64%
Birth registration coverage[4]	89%

[1]Regional Office for the Eastern Mediterranean: Regional health observatory. Website: www.http://rho/rhodata/ accessed on 27 January 2013
[2]National projections based on 2009 data
[3]WHO Regional office for the Eastern Mediterranean, Demographic, social and health indicators for countries of the Eastern Mediterranean, 2012, based on country reports.
[4] WHO. *World Health Statistics, 2012*

Djibouti is ranked 165 out of 187 countries on the UNDP human development index, with 18.8% of the population living below the international poverty line of US$1.25 (in purchasing power parity terms PPR) a day[3]

The country ranks fifth among the countries in the Eastern Mediterranean Region in terms of total fertility rate. It is also among the 10 countries in the Region with highest child and maternal mortality rates. Despite the efforts of the authorities, Djibouti 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 the MDG 4 and 5 if current trends continue, and suggest possible solutions and the way forward to accelerate the progress towards MDGs 4 and 5.

II. Maternal and child health situation analysis

II-1 Health system

The health sector reform is based on a 'pro-poor' policy that promotes national strategies through decentralization, community development and establishment of regional and district councils for health[4]. A new organizational structure for the Ministry of Health is being proposed in an effort to promote

[1] National projections based on 2009 census.
[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] Human Development report, UNDP 2011
[4] Reproductive health country profile 2008, WHO Regional Office for the Eastern Mediterranean , 2009

decentralization. The reform is also based on the effective and efficient expenditure of available resources, facilitating access to services and improved coordination between projects.

Djibouti's health service, largely provided by the public sector, is free of charge to its population regardless of social status and is relatively accessible. 11.2% of total government expenditure is spent on health (2010)[5]. However, there are disparities in accessibility between urban and rural areas and of the nomadic population. Djibouti's public health service is provided through 7 hospitals, 30 rural and 11 urban dispensaries. Officially medicines are to be provided free of charge by Centrale d'Achat des Medicaments et de Materiel Essentiels (CAMME), but, in reality, they are rarely available.

The private sector id developing rapidly in Djibouti city and currently offers 10 clinics.

Djibouti's population is growing at a rate of 2.9% annually due to a high fertility rate (4.2 children per woman) and a significant migratory influx. Shortage of adequately trained health personnel, together with a limited material budget, has caused the supply of health services to decline, both in terms of quality and quantity.

The population with access to primary health care is 79.95% (2010)[6]. In terms of availability, for 10 000 population there are 1.51 physicians and 2.8 nurses and 1.5 midwives and 12.5 hospital beds (2011)[6].

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

Health of women and children is the key to progress on all development goals; investing more in their health will help in building peaceful productive societies and reduce poverty. With this vision, the country has adopted a number of policies and strategies in favour of maternal and child health including:

- costed national implementation plan for MNCH.
- International Code of Marketing of Breast-milk Substitutes
- low osmolarity oral rehydration salts (ORS) and zinc for management of diarrhoea.
- introduction of pneumococcal vaccine,
- introduction of rotavirus vaccine, to be launched in September 2013
- notification of maternal deaths in public hospital

Despite the adoption of these strategies and policies, some of them are only partially implemented, such as the International Code of Marketing Breast-milk Substitutes. Other policies reported by the Countdown initiative have not been adopted by the country, namely:

- community treatment of pneumonia with antibiotics
- maternity protection in accordance with Convention 183.

II-3 MNCH current status

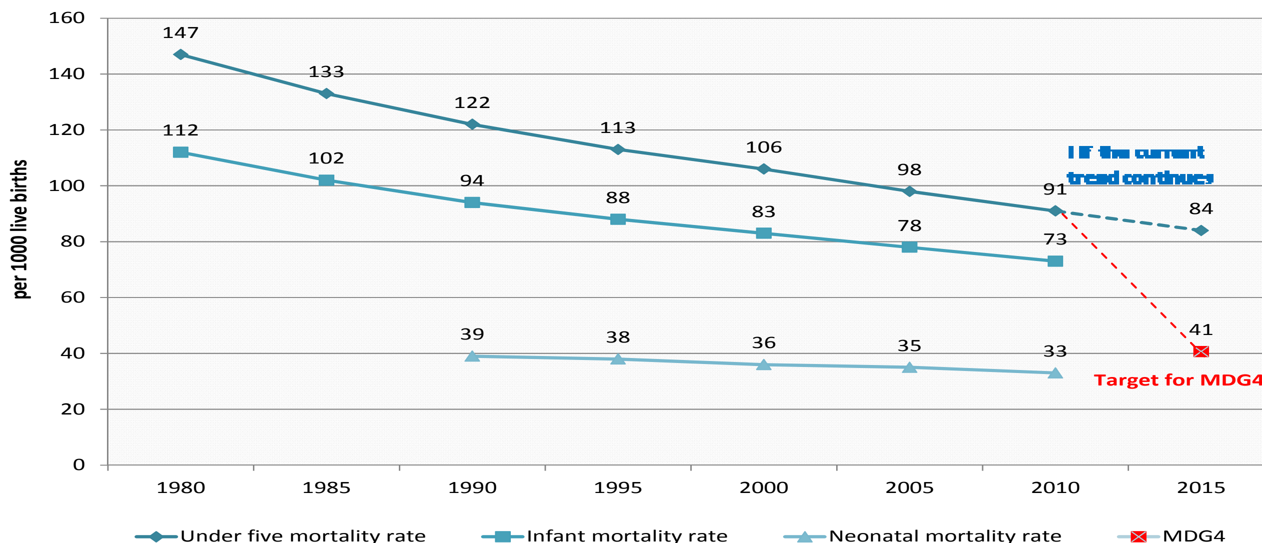
II-3.1 Maternal, newborn and child mortality

In Djibouti, there has been a moderate decrease in the under-5 mortality rate (U5MR) over the years. U5MR declined by 26% between 1990 and 2011. The neonatal mortality rate declined by 16% in the same period. 41% of under-5 deaths occur in the neonatal period and 59% in the post-neonatal period. According to the MICS survey carried out in Djibouti in 2006, the under-5 mortality rate was 30% higher in urban than rural areas of the country. Unlike what has been observed in most countries, children living in urban areas in Djibouti were more likely to die before age 5 years than children in rural areas, based on the MICS 2006.

[5] WHO Global health expenditure database http://apps.who.int/nha/database/dataexplorerregime.aspx (accessed on 4 November 2012)

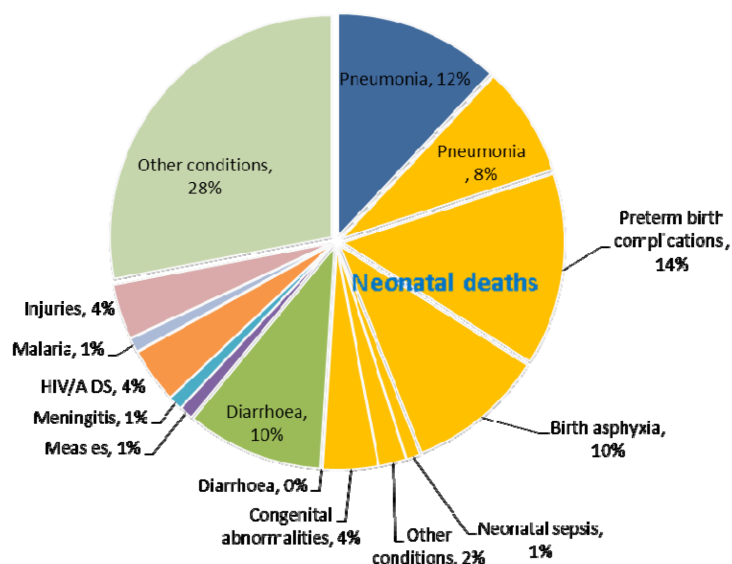
[6] *WHO Regional office for the Eastern Mediterranean, Demographic, social and health indicators for countries of the Eastern Mediterranean, 2012, based on country reports*

Trends in under-5 mortality between 1990 – 2011 and extrapolation to 2015



Source: United Nations Inter-agency group for child mortality estimation (IGME)- *Levels and 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.

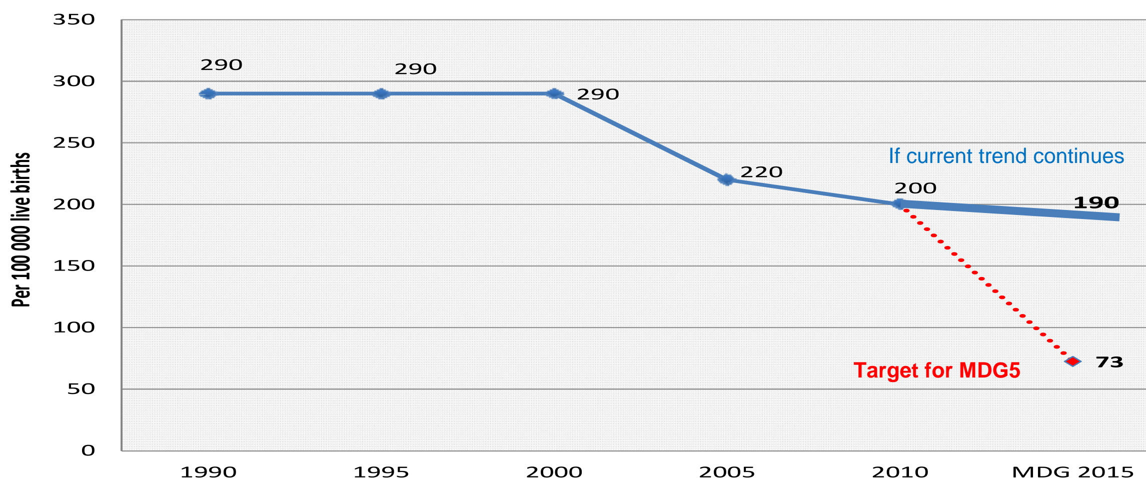
In Djibouti, infectious diseases such as pneumonia (20%), diarrhoea (10%), HIV/AIDS (4%), measles (1%) and malaria (1%) accounted for 36% of the deaths which occurred among children under 5 years in Djibouti in 2010. Prematurity (pre-term birth) (14%) is the second leading cause after pneumonia. Birth asphyxia (10% of all under-5 deaths) is another important cause of mortality in the neonatal period.



Causes of under-5 deaths
Source: WHO/CHERG 2012, 2010 data

Djibouti demonstrated slow progress in reduction of the maternal mortality ratio between 1990 and 2010, from 290 to 200 maternal deaths per 100 000 live births respectively, resulting in 31% reduction.

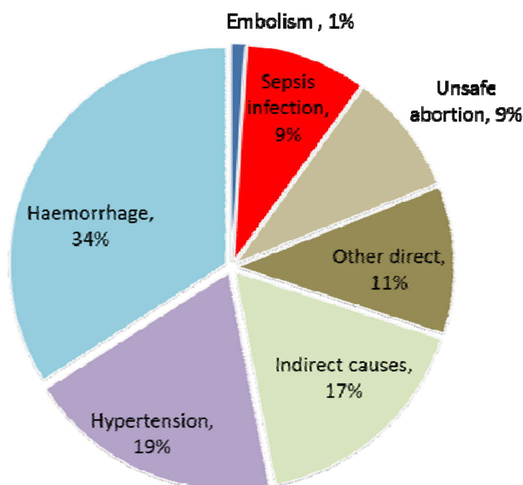
Trend in reduction of maternal mortality ratio between 1990 and 2010 and extrapolation to 2015



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

PAPFAM surveys in 2002 and 2012 showed that the maternal mortality ratio in Djibouti declined from 546 per 100 000 live births to 383 per 100 000 live births.

In the absence of national data on causes of maternal deaths, regional estimates for sub-Saharan Africa are referred to: approximately one in three women die due to haemorrhage (34%), followed by hypertension (19%) and indirect causes (17%)



Causes of maternal death

Source: Source, WHO 2010

II-3.2 Maternal, newborn and child morbidity

Malnutrition among under-5 children is one of the main health problems in Djibouti and increases the risk of mortality. About one in three children under 5 years in Djibouti is stunted (33%), one in four is wasted (26%) and 30% are underweight. More than half of pregnant women suffer from anaemia which also represents a high risk for mortality.

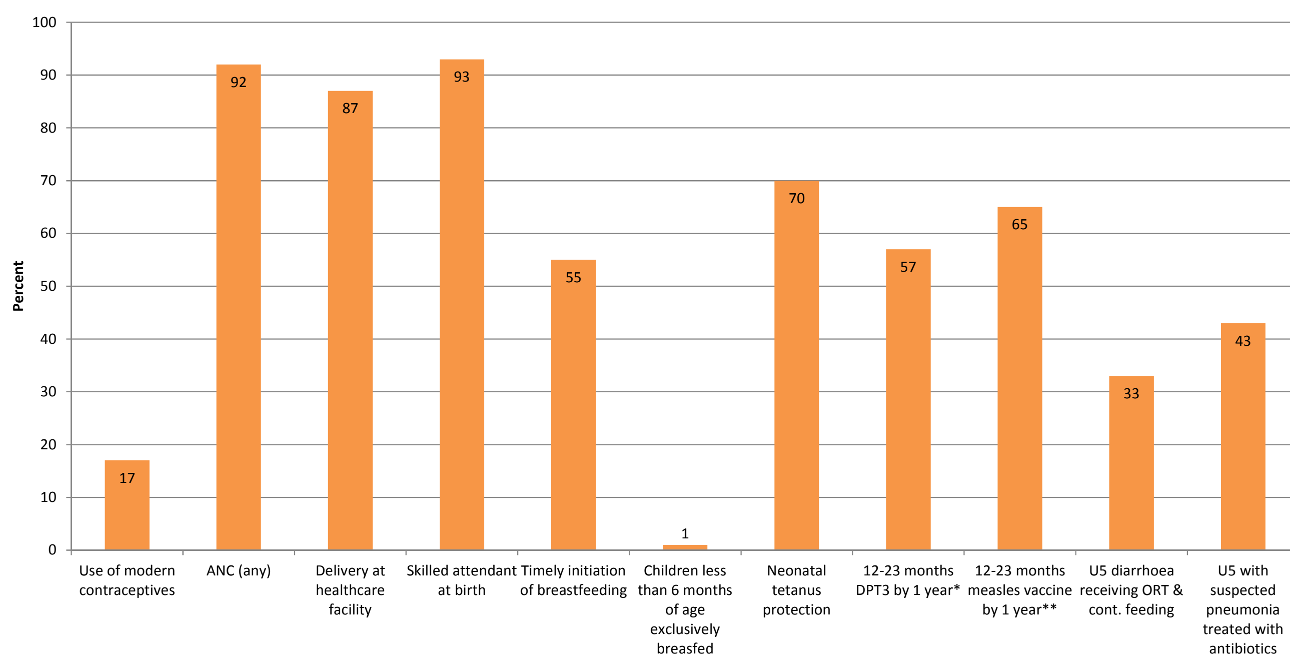
Maternal:	
Anaemia in pregnant women (2010)[1]	58.0%
Newborn:	
Low birth weight in newborns[2]	10%
Child:	
Children under 5 with suspected pneumonia (2010)[2]	-----
Children under 5 with diarrhoea (2010)[2]	4.5%

Nutritional status in children under 5[3]	
Stunting	33%
Wasting	26%
Underweight	30%

[1] WHO regional Office for the Eastern Mediterranean: Regional Health Observatory. Website: www.http://rho/rhodata/ accessed on 27 January 2013
[2] MICS Djibouti 2006
[3] WHO Global Database on Child Growth and Nutrition (2006) - WHO Child Growth Standards

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 Djibouti 2006

Coverage of key maternal, newborn and child health interventions ranged widely in Djibouti, from 93 % for skilled attendance at birth to 1% for exclusive breastfeeding.

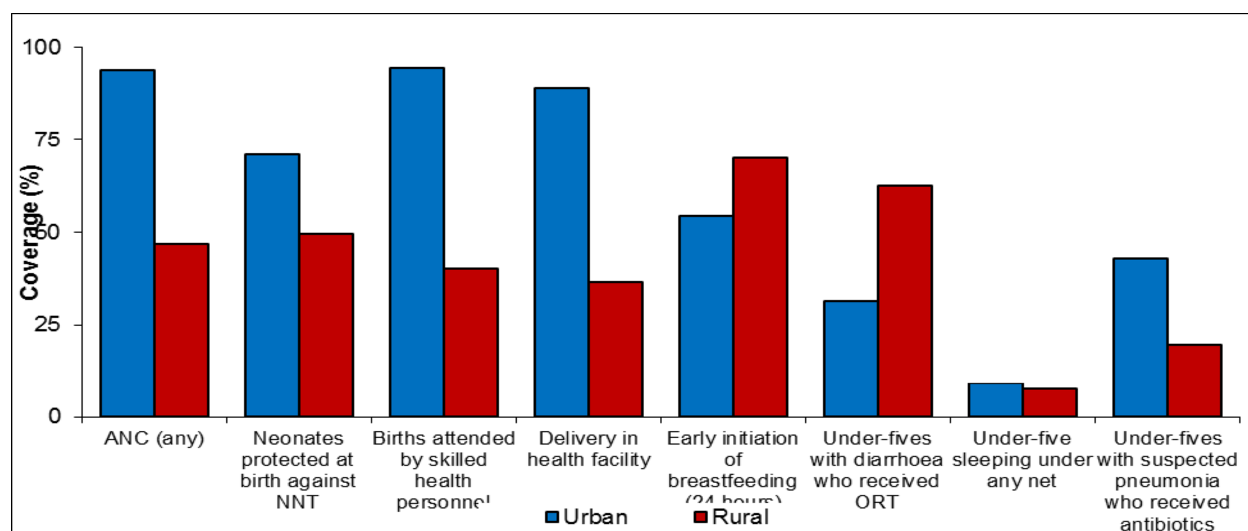
Interventions with less than 50% coverage included exclusive breastfeeding (1%), use of modern contraceptives (17%), ORT and continued feeding for diarrhoea (33%) and suspected pneumonia treated with antibiotics (43%).

Interventions with more than 70% coverage included among others skilled attendance at birth (93%), at least one antenatal care visit during pregnancy (92%), delivery at health facility (87%) and neonates protected against neonatal tetanus (70%)[7].

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

The coverage of key child survival interventions during the continuum of care in Djibouti shows important inequities between children from urban and rural areas of the country. These are especially important for some of the maternal care interventions, such as skilled attendance at birth (2.3 times higher among children in urban areas than among those in rural areas of the country).

Among those children under 5 years who presented with suspected pneumonia in the two weeks preceding the survey, those in urban areas were 2.2 times more likely to receive an antibiotic treatment than those in rural areas.



II-4 Towards MDGs 4 and 5

Djibouti has made efforts to respond to the existing MNCH situation in the country. These include:

- a high level of political commitment to maternal and child health;
- signatory to the MDGs;
- maternal and child health as the main components of the joint plans between the Ministry of Health and United Nations organizations (WHO, UNICEF and UNFPA);
- adoption and implementation of a package of interventions targeting the main causes of child and maternal deaths based on the global cost-effective and evidence-based interventions, delivered in an integrated way. Research has shown that those interventions have the highest impact on mortality.

II-4.1 Child health

A set of interventions targeting the main causes of under-5 mortality in Djibouti has been packaged and implemented under the umbrella of the Integrated Management of Childhood Illness Strategy (IMCI). This strategy addresses not only the main causes of under-5 mortality but also the key health promotive and preventive elements. The three components of the IMCI strategy aim at improving the quality of child health care services at primary health care level, the health system related elements and child health related family and community practices.

[7] Source: MICS3 Djibouti, 2006

Package of child health key cost effective interventions implemented at primary health care level

- Case management of neonatal sepsis, pneumonia, diarrhoea and jaundice.
- 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
- Increasing immunization coverage
- Vitamin A supplementation.

Different implementation approaches were adopted to overcome the problem of the access to primary health care:

- at primary health care facilities: implementation coverage at 82% of primary health care facilities was achieved in 2009. No further facilities were covered after this date;
- at community level through the community health workers.

While the implementation coverage of these interventions and the access to primary health care services are high, the quality of implementation is of concern, hampering the impact of this coverage. In addition, there are other problems such as high turnover of trained staff, shortage of qualified health workforce, weak health information system and shortage of medicines.

Recognizing the importance of the impact of immunization on the reduction of under-5 deaths, Djibouti has witnessed improvement in routine vaccination coverage during the past few years. Reported coverage increased from 53% DTP3 coverage in 2001 to 87% Penta3 coverage in 2011. However, one out of the six districts of the country reported coverage of less than 80% in 2011. The programme is suffering from very weak management capacity of EPI. The national EPI needs strong, well trained human resources.

With GAVI Alliance support and government commitment to co-financing, Djibouti successfully introduced Hib vaccine in 2007 and pneumococcal vaccine in 2012. Rotavirus vaccine is expected to be introduced in September 2013. This commendable success of introduction of the new life-saving vaccines will have significant impact on reduction of under-5 mortality and contribute to progressing towards the target of MDG 4 only if high equitable routine vaccination coverage is achieved.

Reported coverage of the first dose of measles vaccine (MCV1) improved from 49% in 2001 to 84% in 2011; and second dose of measles vaccine was introduced late 2011. The country witnessed relatively a large outbreak of measles in 2011 which extended to older age groups with 49 suspected measles cases. This large outbreak clearly indicates that the actual coverage of routine immunization and supplementary immunization activities is lower than the reported coverage.

II-4.2 Maternal health

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

- antenatal care
- skilled attendance at birth
- provision of basic and comprehensive emergency obstetric and neonatal care
- prevention of mother-to-child transmission of HIV
- postnatal care
- family planning.

This package is being implemented at primary health care facilities. It is accompanied by activities for raising community awareness about life-saving practices by women’s groups.

II.4.3 Can Djibouti reach the targets set for MDG4 and 5 by 2015?

The average annual rate of reduction (AARR) of under-5 mortality in Djibouti between 1990 and 2011 was 1.5%. Achieving MDG4 by 2015 (41 per thousand live births) is a big challenge as it would require an AARR of 19.8% between 2011 and 2015, 13 times as high as what was achieved until 2011.

The annual percentage decline of maternal mortality was 1.9% between 1990 and 2010; if the current trend continues, Djibouti will be most unlikely to achieve MDG5.

III. Feasibility analysis

- The Djibouti government is committed to maternal and child health. However, financial and human resources for these two important areas of work are lacking.
- Unlike other countries with similar maternal and child health indicators, few donors have shown interest in investing in maternal and child health in Djibouti.
- Despite the good access to care in urban areas, especially in the capital Djibouti, rural remote areas and the nomadic population living along the borders with Somalia and Ethiopia, which are the most vulnerable populations, have only 20% access to services.
- The inadequate quality of implementation of interventions hampers their impact in reducing maternal and children deaths.
- Community case management is another approach to increase access to services, although it requires a long time to reach a wide coverage, adequate financial support to provide the required commodities and supervision to ensure good quality. Moreover, this approach requires policy decisions before implementation.
- Substantial investments are required to strengthen key related health system elements in particular the serious shortage of essential medicines for mothers and children, non-functioning health information system and weak supervisory system, which affect both the quality and the scaling up of service delivery.
- District hospitals often do not carry out C-sections, lack oxygen, surgeons, obstetricians, blood transfusion and any advanced life support interventions, and often have to refer to the capital.
- Absence of neonatal units and blood banks in the regions and inability to manage difficult deliveries including Caesarean are major obstacles to reducing maternal and neonatal mortalities
- Inadequate numbers of qualified human resources and the high turnover of trained staff do not enable implementation of good quality services for mothers and children. Many health facilities are run by health workers and not by physicians, and more investment is needed in building their capacity.
- The weak collaboration between vertical programmes targeting children and women hinders the progress towards the goals targeting maternal and child health.
- Despite health care being free, there is a financial barrier that prevents rural, nomadic and poor populations accessing MNCH services
- The introduction of new vaccines is a good step to contribute to reduction of under-5 mortality. However, the weak managerial capacity of the EPI programme, which adversely affects the efficiency and effectiveness of the programme, and the low coverage by routine immunization reduce the potential impact that this intervention could have in reducing under-5 deaths.
- Sustaining the timely co-financing of the current and new vaccines to avoid interruption of GAVI Alliance support requires additional efforts by the Government.
- 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 reduction in mortality, funds and human resources allocation, Djibouti is most unlikely to achieve MDGs 4 and 5. However, if the country makes a high-level commitment and concerted efforts to accelerate the implementation of the cost-effective evidence-based packages of interventions in full collaboration with partners allocating the required human and financial resources, the country will be able to accelerate progress towards MDGs and more lives of mothers and children will be saved.

V. Conclusions: key drivers

With the active support of the international community, the country should aim at accelerating the pace of reduction of under-5 and maternal deaths by scaling up interventions in light of the coverage targets set by MNCH programmes at the Ministry of Health. The accelerated pace of reduction of mortality will bring the country closer to the set targets and will save more lives of mothers and children.

This acceleration requires:

- Translating the current commitment to maternal health into action by allocating the required financial and human resources.
- Providing the required financial resources to implement the national MNCH plans.
- Strengthening partnerships and coordination among concerned stakeholders to contribute to one national plan for MNCH and to achieve the related targets.
- Focusing on the populations most in need to address inequities in order to further reduce maternal and child deaths.
- Ensuring high quality of services as an important answer to the high maternal and child mortality.
- Strengthening the managerial capacity of child, maternal and EPI programmes
- Prioritizing the production of qualified health care providers through good quality capacity-building processes (in-service training and pre-service education).
- Ensuring adequate numbers of qualified workforce.
- Strengthening the key health systems essential elements, in particular medicines, commodities and vaccines availability, health information system and supervision.
- Strengthen routine immunization to achieve the target of 90% coverage at national level and 80% in each district through proper implementation of the reaching every district (RED) approach, especially in districts with vaccination coverage of <80% by ensuring the integration of the EPI in all health care delivery points. Furthermore the EPI programme should focus on improving routine measles vaccination coverage and ensuring high quality of measles campaigns in order to significantly contribute to reduction of child mortality.
- Strengthening monitoring and evaluation system as key approaches to ensuring good quality of services.