# OIC HEALTH REPORT 2013

ORGANISATION OF ISLAMIC COOPERATION

STATISTICAL ECONOMIC AND SOCIAL RESEARCH
AND TRAINING CENTRE FOR ISLAMIC COUNTRIES

SESRIC

# OIC HEALTH REPORT 2013


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# Acronyms

| | |
|---|---|
| AFR | Adolescent Fertility Rate |
| AMR | Adult Mortality Rate |
| ANCC | Antenatal Care Coverage |
| CDC | Center for Disease Control and Prevention |
| COMSTECH | OIC's Standing Committee on Scientific and Technological Cooperation |
| DAH | Development Assistance for Health |
| DTP | Diphtheria-Tetanus-Pertussis |
| EAP | East Asia and Pacific |
| ECA | Europe and Central Asia |
| FCTC | Framework Convention on Tobacco Control |
| FP | Focal Point |
| GDP | Gross Domestic Product |
| HepB | Hepatitis Type B |
| Hib | Haemophilus influenza type b |
| HNP | Health, Nutrition and Population |
| ICCI | Islamic Chamber of Commerce and Industry |
| ICFM | Islamic Council of Foreign Ministers |
| ICHM | Islamic Conference of Health Ministers |
| ICT | Information and Communication Technology |
| IDB | Islamic Development Bank |
| IEG | Independent Evaluation Group |
| IHR | International Health Regulations |
| IMR | Infant Mortality Rate |
| ISESCO | Islamic Educational, Scientific and Cultural Organization |
| JMP | Joint Monitoring Program |
| LAC | Latin America and the Caribbean |
| LBW | Low Birth-weight Newborns |
| LEB | Life Expectancy at Birth |

| | |
|---|---|
| MDGs | Millennium Development Goals |
| MENA | Middle East and North Africa |
| MMR | Maternal Mortality Rate |
| MoU | Memorandum of Understanding |
| NCM | National Coordinating Mechanism |
| OIC | Organization of Islamic Cooperation |
| PHI | Private Health Insurance |
| PSM | Procurement and Supply Chain Management |
| RBM | Roll Back Malaria Partnership |
| SA | South Asia |
| SSA | Sub-Saharan Africa |
| TCU | Tobacco Control Unit |
| U5MR | Under 5 Mortality Rate |
| UNAIDS | The Joint United Nations Programme on HIV/AIDS |
| UNFPA | The United Nations Population Fund |
| UNICEF | The United Nations Children's Fund |
| USAID | United States Agency for International Development |
| WASH | Water, Sanitation and Hygiene |
| WB | World Bank |
| WHO | World Health Organization |

# Foreword

The level of the socio-economic development of a country is highly influenced by the state of health and the quality of health services provided to the people in that country. Healthy people have potential to contribute more significantly to economic progress, since they live longer and are more productive. Yet, as a basic principle, all people should have the right to access to health services equally. According to the literature and practice of public health, health equity means that people should have the opportunity to "attain their full health potential" and no one is "disadvantaged" from achieving this potential because of their social status or other socially determined circumstances.

Many developing countries have recently paid special attention to the issue of health and development of modern and sustainable health systems. As a major driver of socio economic progress, these countries started to allocate more resources in health sector than ever before. However, while the people today are healthier, wealthier and live longer than 30 years ago, many developing and least-developed countries are still seriously lagging behind in terms of the progress achieved over the years in health sector compared to the developed countries. This is especially clear in the developing regions of South Asia and Sub-Saharan Africa, where health care coverage and health services remained significantly poor in many countries, including most of OIC member countries, in these regions.

In the case of OIC member countries, the progress achieved in universal health care coverage remained highly uneven. In many of them, health care system is seriously suffering from various problems and challenges related to ensuring adequate financing resources and infrastructure, workforce and appropriate national health regulations. For example, the average share of health expenditures in total government expenditures is only 8.1 per cent compared to the world average of 15.8 per cent and there are only 26 health personnel per 10,000 people on average in OIC countries compared to the world average of 43. As a result of these and other factors, 300 thousand maternal deaths are recorded in OIC countries in 2010, corresponding to 43 per cent of the world total maternal deaths; 41 per cent of total births in OIC countries are still taking place without receiving any assistance and care from skilled health personnel compared to 30 per cent in the world; and last three polio endemic countries in the world are OIC member countries.

This state of affairs necessitates more commitment and efforts by the governments to consider this important sector at a higher level on their national development agendas. In this regard, the OIC Strategic Programme of Action (OIC-SHPA) 2013-2022, which has been prepared by SESRIC in collaboration with OIC member countries and relevant international organizations, is expected to be an instrumental approach in strengthening and enhancing

cooperation and collaboration on various health issues at both OIC and international level. In the light of the current health status of OIC member countries and magnitude of their health problems, the OIC-SHPA identifies six thematic areas for joint action: (1) Health System Strengthening, (2) Disease Prevention and Control, (3) Maternal, New-born and Child Health and Nutrition, (4) Medicine, Vaccine and Medical Technologies, (5) Emergency Health Response and Interventions, and (6) Information, Education, Research and Advocacy.

Under each of these six thematic areas of cooperation, the OIC-SHPA identifies certain programmes of actions and activities to be implemented collectively by the OIC member countries and the relevant OIC and international institutions with a view to strengthening the health systems and enhancing the quality of health services in the member countries. SESRIC, in collaboration with the lead countries of the six thematic areas of cooperation, has coordinated the preparation of the implementation plan of the OIC-SHPA, which constitute an integral part of the programme. Together these two documents will be submitted for adoption by the ministers of health of the OIC member countries during the Fourth Session of the Islamic Conference of Health Ministers, which will be held in Jakarta in October 2013.

The 2013 edition of OIC Health Report highlights the current state of health situation and health care coverage in OIC member countries. It analyses the trends on major health indicators in the OIC member countries at the average OIC group level as well as at the individual country and OIC sub-regional levels. The Report also highlights some challenges and obstacles facing the member countries in their efforts to enhance the performance of health sector, such as health expenditures, health workforce and infrastructure and health reforms. Following a brief on OIC cooperation efforts and initiatives in the domain of health, the Report ends in the last section with a set of broad policy recommendations related, in particular, to health financing, preparing health workforce, improving health services infrastructures, health reforms and complying with international health regulations.

Prof. Savaş Alpay

Director General

S E S R I C

# 1 Introduction

Health is a crucial factor in the well-being of humanity. It has important contributions to economic progress since healthy people live longer and are more productive. Many and diverse factors influence health status and a country's ability to provide quality health services for its people. For example, investments in transport and communications can improve access to health services. Ministries of health play a key role for the provision of health services; however, government agencies, donor organizations, civil society groups and communities also contribute to the overall functioning of the health sector.

Over the recent decades, the issue of health has gained great importance as a major driver of socio-economic progress around the globe, with more resources than ever being invested in this sector. Looking broadly, today people are healthier, wealthier and live longer than 30 years ago. According to the 2008 issue of the World Health Report, if children were still dying at 1978 rates, there would have been 16.2 million deaths globally in 2006 (where the actual figure was 9.5 million). This difference of 6.7 million means that 18,329 children's lives were saved every day. However, and especially when considering children, the issue of health should gain much more attention.

Mirroring the overall trends in child survival, global trends in life expectancy at birth showed a rise of almost four years between 1990 and 2011. The most impressive relative gains were recorded in a number of low-income countries in Asia (including India), Latin America and northern Africa. These countries increased life expectancy at birth by 12 years

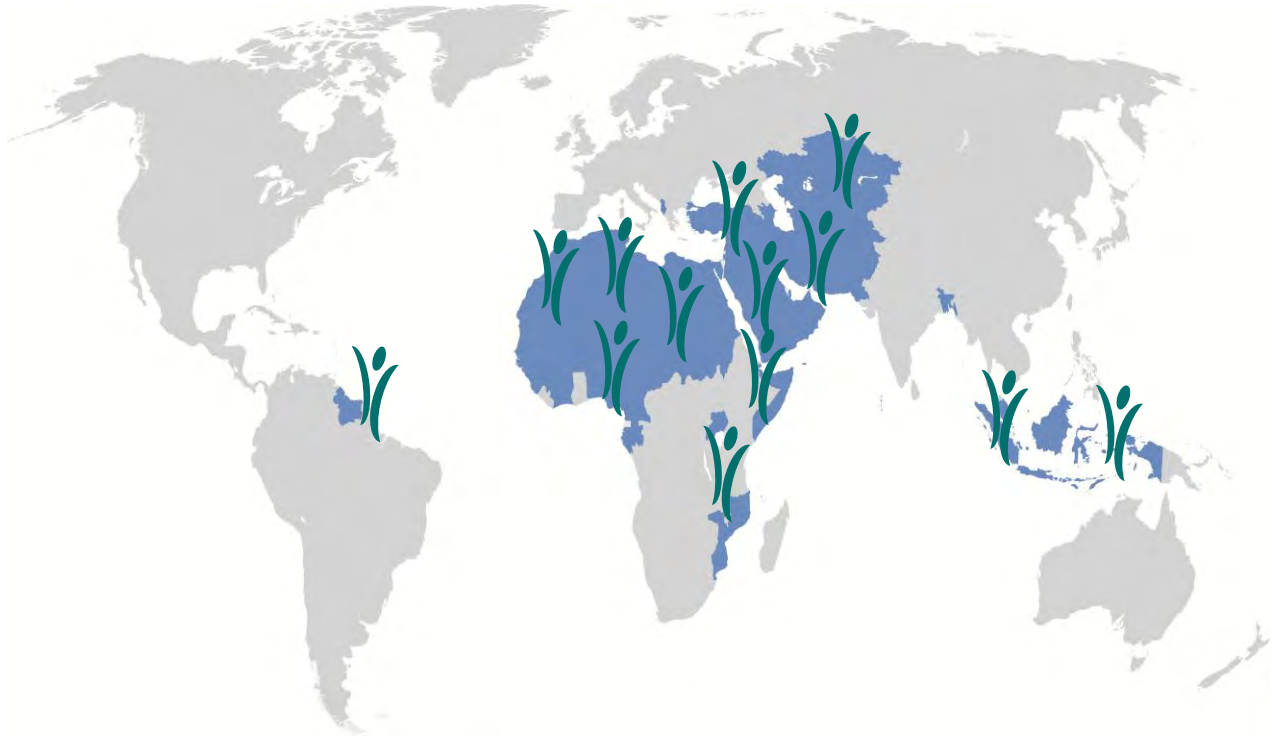
during the last 30 years. Chapter 2 of this report is dedicated to analyse in depth the current status of health care coverage and its outcomes in the OIC member countries.

Health expenditure is an important indicator that shows how much a country cares for health development, and accordingly, how much of health resources are allocated per person of population of that country. A country's performance with respect to expenditure on health can easily be traced through expectations regarding life expectancy at birth, which is an indicator that can be considered as the mirror reflection of health expenditure on the population. Infant mortality rate is another indicator that is highly connected to expenditure on health. Access to improved drinking water sources and sanitation are also important health issues highly connected to expenditure on health. All these factors are among the major determinants of poor health, especially the infectious diseases. Today, according to World Health Organization (WHO), almost one billion people do not have access to clean water and more than three billion people lack access to sanitation facilities, noting that the total can reach 4.5 billion during the next 20 years. Chapter 3 of this report contains a detailed analysis of these major obstacles in the development of an efficient and effective health care system in OIC member countries.

The 21st century can be named as the age of technology, where every part of the life involves technology in itself with the most important development is being in Information and Communication Technology (ICT). ICT has great impact on working sphere and facility services including the health sector in terms of making life more efficient. ICT establishes faster communication within health personnel as well as between personnel and patients. It also provides easy access to health care services. Using ICT in health sector is commonly named as "e-health". Improving the e-health system in countries would facilitate and increase the efficiency of health services provided to people. However, there is a long way to go especially for the low income developing countries, including many OIC member countries, to reap the health benefits of ICT.

A basic principle of public health is that all people should have the right to reach health services. Health is one of the human rights recognized by international laws. Health equity, then, as understood in public health literature and practice, is that everyone has the opportunity to "attain their full health potential" and no one is "disadvantaged" from achieving this potential because of their social status or other socially determined circumstance. People living in many countries especially in South Asia and Sub-Saharan Africa regions, are still suffering from poor health care services mainly due to the lack of adequate and sustainable financial resource, poor health infrastructure, insufficient trained health workforce and slow progress on health reforms. The nature and magnitude of these key challenges require a greater commitment from the governments to put health sector higher on the national development agendas and build health infrastructure and train workforce to meet the current and future demands for the health services. In addition, there is also need to emphasize the compliance with international health regulations to ensure safe and secure health care services for people.

Health sector is an important constituent of OIC Ten Year Programme of Action. In this program, OIC General Secretariat has been mandated to collaborate with national, regional and international health organizations and development agencies to promote the health care coverage and eradication of diseases and epidemics in the OIC member countries. Chapter 4 of this report highlights the history of OIC advocacy and cooperation for heath sector and its current and planned activities to pave the way for universal health coverage in OIC member countries. This chapter also provides an overview of salient features of OIC-SHPA 2013-2022 and its six thematic areas of cooperation by highlighting the major actions and activities proposed both at national and intra-OIC level under these thematic areas. Lastly, chapter 5 provides some policy recommendations to overcome these major challenges and achieve universal health care coverage in OIC member countries.



With its current 57 member countries, the OIC is the second international organization after the United Nations. The OIC countries are dispersed over a large geographical region, spread out on four continents, extending from Albania (Europe) in the north to Mozambique (Africa) in the south, and from Guyana (Latin America) in the west to Indonesia (Asia) in the east. The OIC countries as a group account for one sixth of the world area and more than one fifth of the total world population. They constitute a substantial part of the developing countries, and, being at different levels of economic development, they do not make up a homogenous socio-economic group.

Though the OIC countries as a group possess most of the global proven crude oil and natural gas reserves, natural resources are not the main strength of the OIC countries; it is rather their young population that constitutes high potential for their future socio-economic development. The share of young population (age group 0-24) in OIC countries exceeded 53% of total OIC population in 2012 compared to the world average of 43%. This ratio was only 29% in the developed countries and 43% in non-OIC developing countries.

# 2 Status of Public Health and Trends in OIC Countries

## 2.1 Maternal and Newborn Health

According to the UNICEF estimates (2009), around half a million maternal and about four million newborn deaths are mainly caused by the lack of quality antenatal health care, safe and clean delivery and post-natal care for mother and infant. Most of these deaths are preventable by ensuring proper care and counseling before and after pregnancy, at the time of delivery and after child birth. In this section, major issues related with maternity and new born health will be discussed in detail with a special reference to the performance of OIC member countries in this regard.

### 2.1.1 Antenatal Care

Antenatal care and counselling is the entry point to the formal health care system and provides a solid base to monitor and improve the mother-baby health by identifying and preventing/controlling antenatal complications at the earliest stage. The antenatal health care package includes recording medical history, assessment of individual needs, advice and guidance on pregnancy and delivery, screening tests, education on self-care during pregnancy, identification of conditions detrimental to health during pregnancy, first-line management and referral if necessary (WHO, 2010).

To assess the situation of access and utilization of health care services at the antenatal level, the World Health Organization (WHO) developed an indicator called Antenatal Care Coverage (ANCC). This indicator measures the proportion of total pregnant woman aged

15-49 who visited a skilled health professional for reasons related to pregnancy. For the quality and effectiveness of ANCC, number of visits and their timing are also considered very important. In this regard, WHO recommends at least four antenatal visits for uncomplicated pregnancies and advises first visit at a very early stage of pregnancy followed by the second from 24-28th weeks, the third at 32nd weeks and the fourth around 36th week.

*Both in terms of one and four antenatal visits, OIC antenatal care coverage rate remained below the world average*

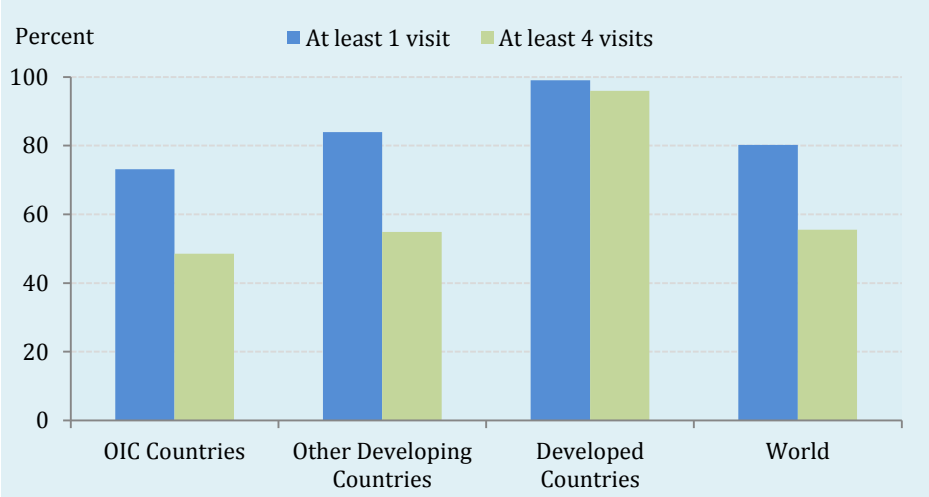
Over the years, a lot of progress has been made in provision of antenatal care services and today around 80 per cent of total pregnant women worldwide received antenatal checks up from a qualified health professional at least once during the pregnancy (Figure 2.1). However, during 2000-2011, across the globe less than half of total pregnant women (i.e. 56 per cent) actually benefited from four antenatal checks up, as recommended by the WHO and the UNICEF. Comparatively, situation remained better in other developing countries where 84 per cent of total pregnant women visited a health professional at least once and 55 per cent managed to visit four times. There are various socio-economic, cultural, political and geographical factors that are responsible for the overall low coverage of recommended four antenatal visits across the globe especially in the low income developing countries. Some of these factors will be overviewed in the case of OIC member countries in Section 3.

The provision of relevant and quality ANCC is a major concern in the OIC member countries. During the period 2000-2011, ANCC rates in OIC countries remained lower than those for other developing countries. Around 73 per cent of total pregnant women in the OIC member countries benefited from antenatal care services at least once during the pregnancy whereas 49 per cent of total pregnant women benefited from recommended four antenatal checks up. In both cases, the OIC average remained below the average of other developing countries and world during the period under consideration.

**Figure 2.1:**
Antenatal Care Coverage 2000-2011

ANC Coverage remained comparatively low in OIC countries.

*Source:* Table A.1 in the Statistical Appendix




The OIC regional groups present a mix picture of antenatal care coverage. In general, member countries in East Asia & Pacific (EAP), Europe & Central Asia (ECA), Latin America and Caribbean (LAC) and Middle East & North Africa (MENA) regions registered ANCC

rate, both for one and four visits, higher than OIC averages while the averages of South Asia (SA) and Sub-Saharan Africa (SSA) regions remained below the OIC average. As shown in Figure 2.2, for the WHO recommended four antenatal visits, OIC regional group averages range from a low of 25 per cent in SA to a high of 82 per cent in EAP; while 68 per cent of the total pregnant women in ECA, 75 per cent in MENA and 42 per cent in SSA region received recommended antenatal checks up during the period 2000-2011. On the other hand, with respect to the proportion of total pregnant women who used ANC at least once, OIC regional group averages range from a low of 56 per cent in SA to a high of 93 per cent in ECA region. Among other regions, 92 per cent of total pregnant women in EAP, 87 per cent in LAC, 82 per cent in MENA, and 68 per cent of total pregnant women in SSA region were attended at least once for an antenatal check-up.

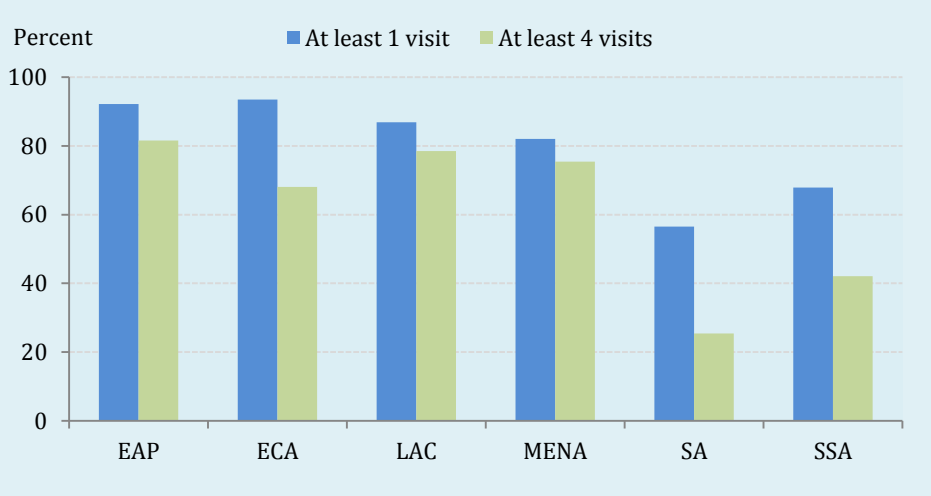


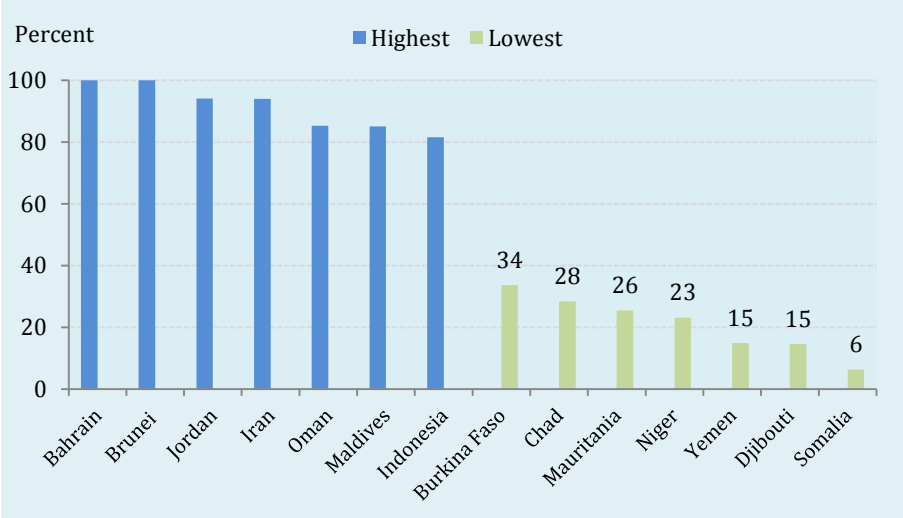

**Figure 2.2:** Antenatal Care Coverage in OIC Regions

ANCC remained comparatively very low in SA and SSA regions.

*Source:* Table A.1 in the Statistical Appendix

At the individual country level, more than two thirds (67 per cent to 100 per cent) of total pregnant women visited a health clinic four times for antenatal checks up in 14 member countries. Out of these 14 countries, Bahrain, Brunei, Jordan, and Iran remained at the top with ANC coverage rate of over 90 per cent (Figure 2.3). Among others, six member countries registered ANC coverage rate of 50 per cent to 66 per cent. Four out of these six countries are from Sub-Saharan Africa, namely: Benin (60.5 per cent), Togo (54.9 per cent), Guinea (50.3 per cent), and Senegal (50 per cent). On the other hand, 13 member countries registered ANC coverage rate of less than 50 per cent. Out of these 13 members, ANC coverage remained less than 25 per cent in four countries (see annex Table A.1). The situation remained worse in Somalia, where even less than 15 per cent of total pregnant women actually benefitted from WHO recommended four antenatal visits during the period under consideration (Figure 2.3).

**Figure 2.3:** Antenatal Care Coverage (at least 4 visits) in OIC Member Countries




*Source:* Table A.1 in the Statistical Appendix

### 2.1.2 Births Attended by Skilled Health Personnel

Skilled health care and assistance at the time of delivery are very critical for the healthy survival of both mother and baby. According to the WHO estimates (Countdown Report, 2010), lack of proper health care during pregnancy and child birth is the major cause for about 2 million maternal and newborn deaths every year. Most of these deaths could be prevented by ensuring assistance of skilled health personnel - a doctor, nurse or midwife- during the birth. In this regard, pregnant women should be educated, encouraged and facilitated by the authorities to give birth in the presence of skilled health personnel; and attendants should be given an enabling and supportive environment by providing necessary training, essential drug supplies and medical equipment (UNFPA, 2002).

*In OIC countries, 41% of total births are still taking place without receiving any assistance and care from skilled health personnel compared to 30% in the world*

In the last two decades, global community has exerted great efforts to increase the proportion of total deliveries attended by the skilled personnel. These noble efforts have actually paid off, and, as shown in Figure 2.4, in 2005-2011 about 70 per cent of total pregnant women were attended by skilled health personnel during the child birth. Meanwhile, in the developed countries almost all (99 per cent) of women received assistance from a skilled health worker while giving birth. The situation has improved in other developing countries as well and about 72 per cent of total deliveries were assisted by the skilled health personnel in 2005-2011.

OIC member countries, as a group, registered a comparatively very low level of births attended by skilled personnel. As shown in Figure 2.4, only 59 per cent of pregnant women received assistance from a skilled health worker while giving birth in OIC member countries. OIC average remained well below the world, developed, and other developing countries averages during the period under consideration.

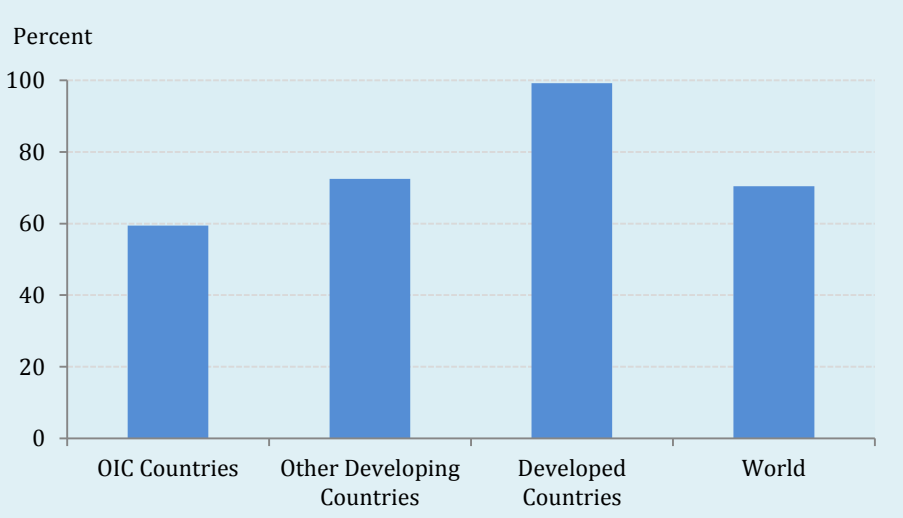



**Figure 2.4:** Births Attended by Skilled Personnel

OIC countries are still lagging behind.

*Source:* Table A.1 in the Statistical Appendix

During the period under consideration, with the exception of SA and SSA, all OIC regions have recorded impressive performance with respect to coverage of skilled personnel attendance at the time of delivery. On average, member countries in EAP, ECA, LAC and MENA regions registered coverage rates higher than the OIC, other developing countries and world averages.

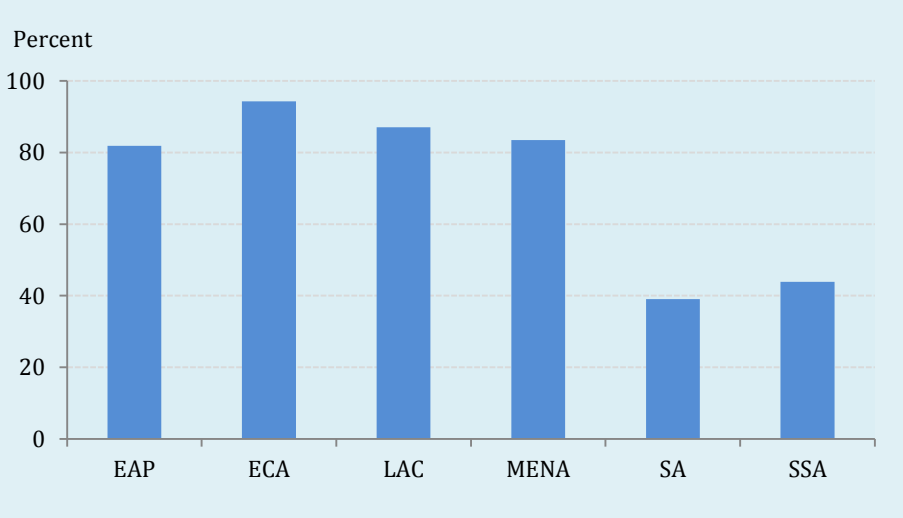



**Figure 2.5:** Births Attended by Skilled Personnel in OIC Regional Groups

Situation in SA and SSA regions remained alarmingly poor.

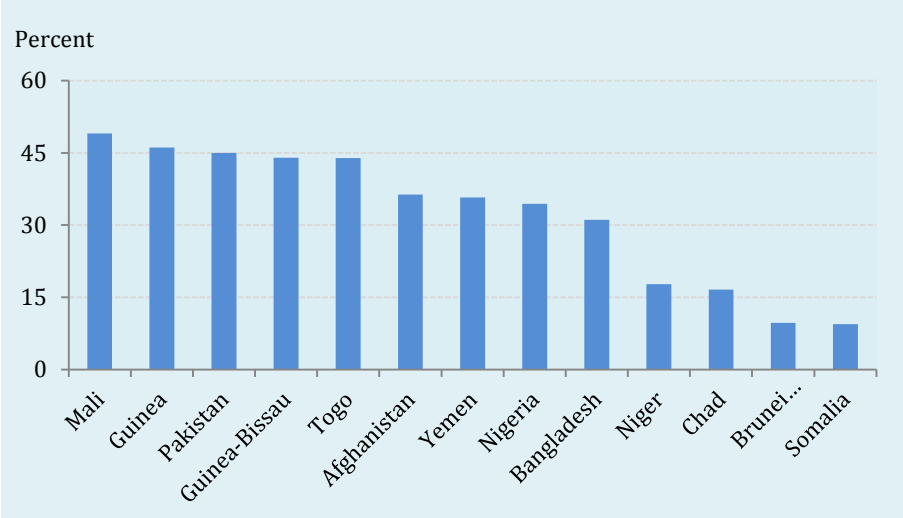
*Source:* Table A.1 in the Statistical Appendix

There are great disparities among the OIC regions. As shown in Figure 2.5, during 2005-2011 the share of total births attended by skilled health personnel ranged from a low of 39 per cent in SA to a high of 94 per cent in ECA while, 87 per cent of total births in LAC, 83 per cent in MENA, 82 per cent in EAP, and 44 per cent in SSA region were attended by skilled health personnel. During the last two decades (SESRIC, 2011), the presence of skilled health personnel at the time of delivery has improved by 35 percentage points in EAP, followed by MENA (an increase of 24 percentage points) and SA (an increase of 22 percentage points). However, despite significant improvement throughout the OIC region, situation remained quite alarming in member countries located in SA and SSA regions where majority of the

births (61 per cent and 56 per cent respectively) are still taking place without any skilled health care and assistance at the time of delivery.

At the individual country level, majority of OIC members have recorded impressive performance with respect to coverage of skilled health attendants at the time of delivery during the period 2005-2011. According to the latest estimates, in 20 member countries more than 90 per cent deliveries were assisted by skilled health personnel in 2005-2011. In five of these countries namely: Qatar, Saudi Arabia, United Arab Emirates, Turkmenistan, and Uzbekistan all births were attended by a skilled health worker. On the bottom side, less than 50 per cent of total pregnant women received skilled health care during birth in 13 member countries (see Annex Table A.1). In four of these 13 countries namely: Niger, Chad, Brunei, and Somalia, less than 30 per cent of total births were attended by a skilled health worker during 2005-2011 (Figure 2.6).

**Figure 2.6:** OIC Members with Less than 50 per cent Births Attended by Skilled Personnel




*Source:* Table A.1 in the Statistical Appendix

### 2.1.3 Low Birth-weight Newborns

According to the WHO, babies born with a weight of less than 2,500 grams (5.5 pounds) are classified as low birth weight newborns. It is an important indicator of infant health and life expectancy due to its strong relationship with poor child health and child mortality. It has been found that infants weighing less than 2,500 grams are 20 times more likely to die than the heavier babies. While, on the other hand, those who manage to survive are always at a greater risk of having developmental disabilities (UNICEF, 2004 & 2009). Usually, low birth weight is primarily caused by fetal growth retardation[1] and/or pre-term birth[2]. In addition, some factors related particularly to the status of mother such as socio-economic position, size, age, number of previous births, nutritional status, and smoking/drinking habits are also considered to be very influential for the baby's birth weight (UNICEF, 2009).

[1] As a result of intrauterine growth restriction baby born too small for gestational age.

[2] Baby born at less than 37 weeks.

The latest estimates of the WHO show that globally about 13.9 per cent of total births were weighed less than the threshold of 2,500 grams in 2000-2010 (Figure 2.7). About 97 per cent of these low birth weight babies were born in developing countries, which accounted for about 94 per cent of world total births in 2000-2010. Only 5.3 per cent of total births in developed countries were registered as low birth weight while in other developing countries; about 14.9 per cent of total births were registered as low birth weight. The prevalence of low birth weight newborns in OIC member countries remained higher than the world and developed countries averages. In 2000-2010, about 14.3 per cent of total births in member countries were registered as low birth weight. During this period, OIC member countries accounted for around 29 per cent of world and 31 per cent of developing countries total births whereas around 31 per cent of world and 32 per cent of developing countries total underweight babies were born in the OIC member countries.

*About 31% of world total low birth weight newborns are recorded in OIC countries*

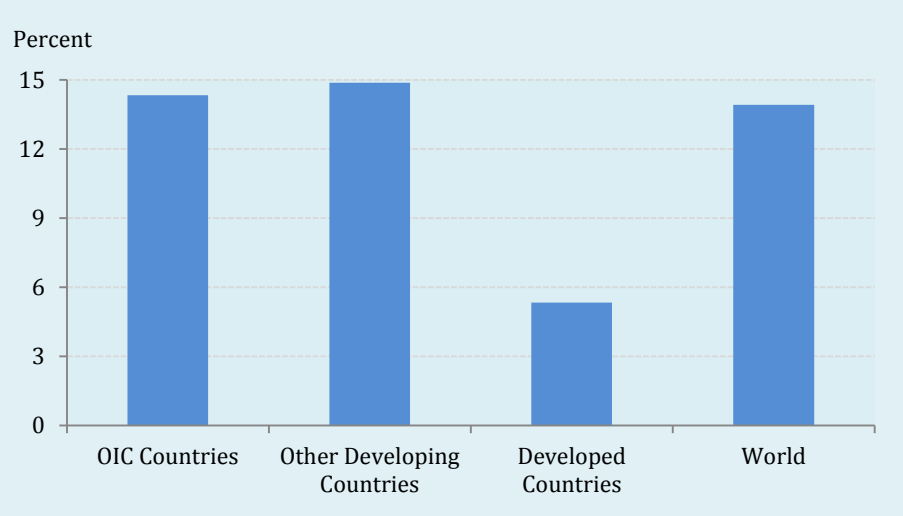



**Figure 2.7:** Prevalence of Low-birth-weight Newborns, 2000-2010

Prevalence of LBW newborns remained high across the developing world.

*Source:* Table A.2 in the Statistical Appendix

The prevalence of low birth weight newborns in OIC regional groups remained higher in member countries located in SA, LAC and SSA regions. These three regions collectively accounted for about 75 per cent of total low birth weight babies born in OIC members during 2000-2010. As shown in Figure 2.8, SA region recorded the highest prevalence of low birth weight newborns with 27.8 per cent of all infants below the threshold weight of 2,500 grams at birth. On the other hand, ECA region recorded the lowest rate of 8.6 per cent

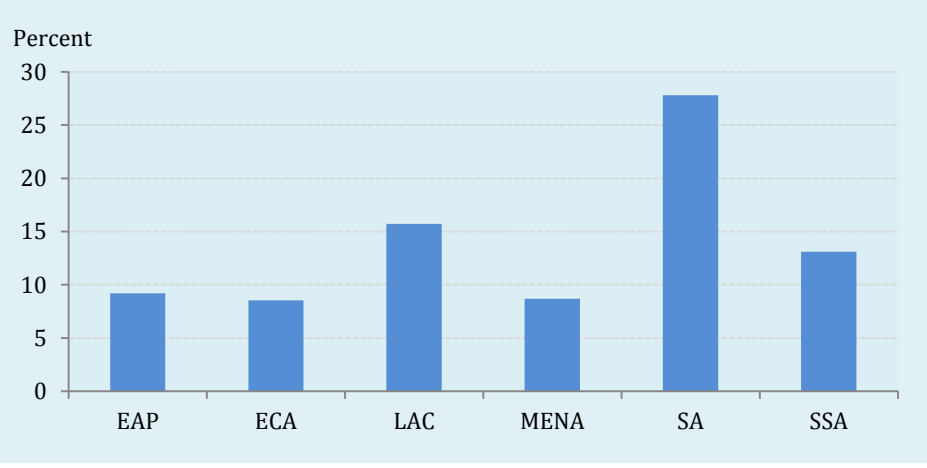



**Figure 2.8:** Prevalence of Low-birth-weight Newborns in OIC Regions

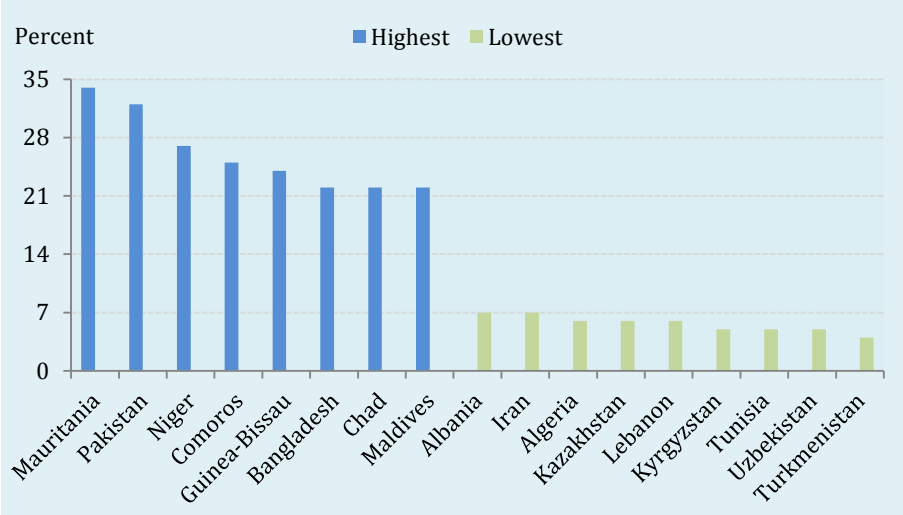
Prevalence of LBW newborns remained significantly high in SA region.

*Source:* Table A.2 in the Statistical Appendix

followed by MENA with 8.7 per cent. Among other regions, about 15.7 per cent of total infants in LAC were registered as low birth weight newborns followed by SSA (13.1 per cent) and EAP (9.2 per cent).

During 2000-2010, prevalence of low birth weight newborns remained higher than the OIC average (15.7 per cent) in 14 member countries, of these 10 were from SSA and 3 from SA region. The highest prevalence of low birth weight newborns was recorded in Mauritania (34 per cent), followed by Pakistan (32 per cent), and Niger (27 per cent). On the other hand, in 15 member countries proportion of low birth weight infants remained 10 per cent or less than 10 per cent (see annex Table A.2). As shown in Figure 2.9, Turkmenistan registered the lowest rate of just 4 per cent followed by Uzbekistan (5 per cent), Tunisia (5 per cent) and Kyrgyzstan (5 per cent).

**Figure 2.9:** Prevalence of Low-birth-weight Newborns in OIC Member Countries




*Source:* Table A.2 in the Statistical Appendix

### 2.1.4 Infants Exclusively Breastfed

Globally, about four million babies per year die during the very first week of life mainly due to poor neonatal conditions. According to the UNICEF, one of the best measures to prevent most of these deaths is an early initiation of breastfeeding. Breast milk is fundamental to child health, growth, development, and survival. As it not only provides newborns with nutrition but also protects them from diarrhea and acute respiratory infections, stimulates their immune systems and improves response to vaccinations. Keeping in view these benefits of breast milk, health experts are of the opinion that exclusive breastfeeding from the birth to six months could help to reduce neonatal mortality by 20 per cent (Niles, 2010).

However, in spite of its crucial importance for the healthy survival of a newborn, a vast majority of mothers do not exclusively breastfeed their children for the first six months of life. As shown in Figure 2.10, worldwide slightly more than one third (38 per cent) of newborns were breastfed during 2000-2011. In other developing countries where bulk of neonatal deaths occurs about 44 per cent of newborns were exclusively breastfed. While in OIC member countries, 32 per cent of newborns were exclusively breastfed for the first six months of their life.

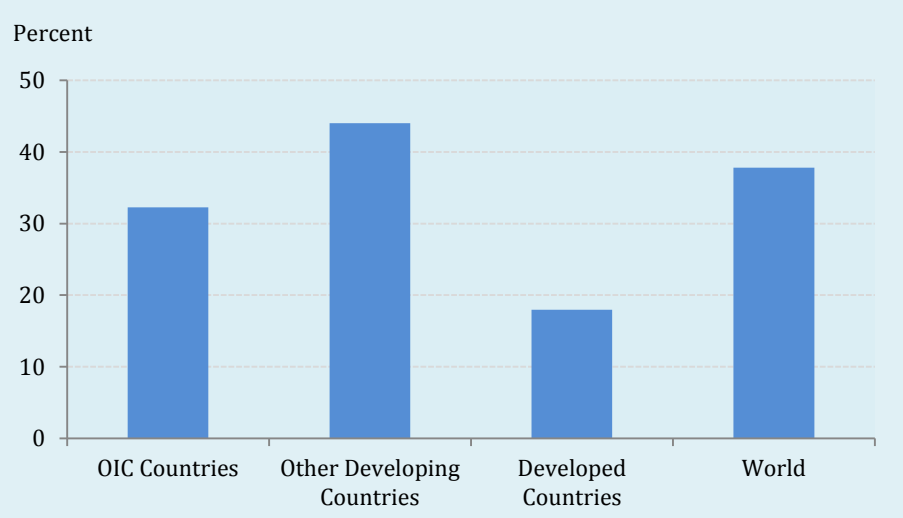



**Figure 2.10:** Infants Exclusively Breastfed, 2000-2011

Prevalence of breastfeeding remained comparatively low in OIC countries.

*Source:* Table A.2 in the Statistical Appendix

At the OIC regions level, prevalence of exclusive breastfeeding for the first six months was highest in SA and ECA where 48 and 33 per cent of newborns were exclusively breastfed, respectively (Figure 2.11). On the other side of the scale, breastfeeding was lowest in LAC and SSA where only 20 per cent and 26 per cent of newborns were exclusively breastfed, respectively. Among other regions, over 32 per cent of newborns in EAP and 29 per cent in MENA were exclusively breastfed in 2000-2011 Prevalence of exclusive breastfeeding in SA region remained higher than the world, OIC, developed and other developing countries averages.

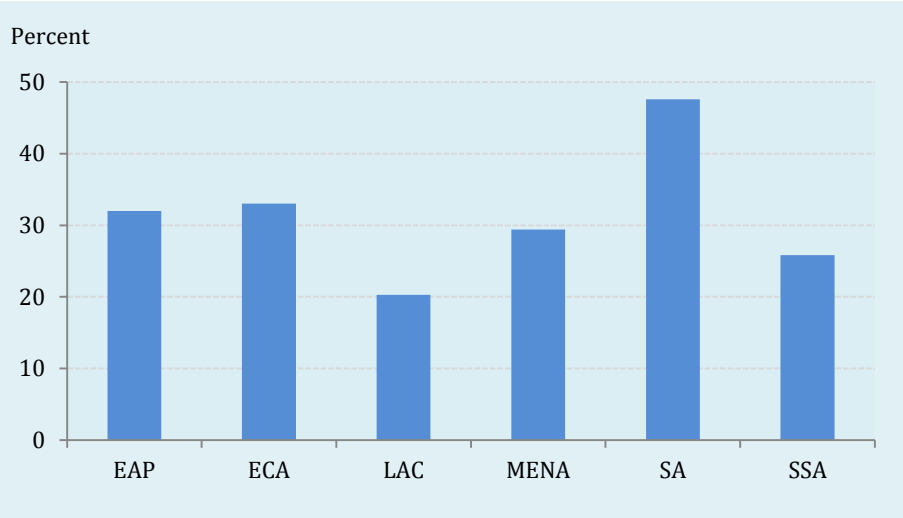



**Figure 2.11:** Infants Exclusively Breastfed in OIC Regions, 2000-2011

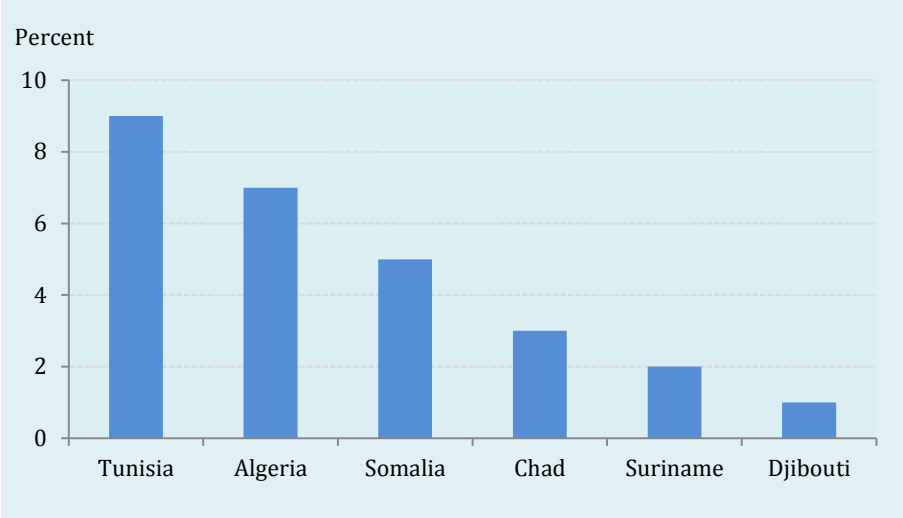
More than 30% infants are breastfed in three OIC regions.

*Source:* Table A.2 in the Statistical

At the individual country level, prevalence of breastfeeding ranged from a low of one per cent in Djibouti to a high of 64 per cent in Bangladesh. Among the 43 OIC member countries with available data, breastfeeding rate remained higher than the world average of 38 per cent in 10 member countries (see annex Table A.2). On the bottom side, prevalence of breastfeeding remained less than 15 per cent in ten member countries. For six of these countries, it is even less than ten per cent. As shown in Figure 2.12, member countries with

lowest prevalence of breastfeeding include Tunisia (9 per cent), Algeria (7 per cent), Somalia (5 per cent), Chad (3 per cent), Suriname (2 per cent), and Djibouti (1 per cent).

**Figure 2.12:** OIC Member Countries with Lowest Prevalence of Breastfeeding, 2000-2011




*Source:* Table A.2 in the Statistical Appendix

### 2.1.5 Immunization[3] Coverage among One Year Olds

Keeping in view the age-specific risks of the infectious diseases, childhood immunization is one of the most efficient and effective methods of preventing diseases like Measles, Meningitis, Diphtheria, Tetanus, Pertussis (whooping cough), Yellow fever, Polio and Hepatitis B. Immunization against vaccine-preventable diseases during the first year of life is recommended by the WHO for all nations. Over the years, WHO and UNICEF along with international community helped majority of the developing countries to improve their national immunization services and coverage by supplying needed vaccines and training their health workers. These noble efforts paid off and increase in immunization coverage helped to prevent millions of child deaths across the world. According to the WHO estimates, immunization against vaccine-preventable diseases helps to prevent disability and death of about 2.5 million children every year (SOWVI 2009).

*Measles Immunization Coverage*

Measles is one of the leading causes of child mortality especially in low income countries, where 95 per cent of total world Measles related deaths are taking place in these countries. However, widespread routine immunization leads to steep reduction in Measles mortality (WHO, Fact sheet No: 286, December 2009). Worldwide Measles immunization coverage has increased substantially during the last decade. As shown in Figure 2.13, share of children immunized against Measles worldwide has increased from 71 per cent in 2000 to 84 per cent in 2011, corresponding to an increase of 13 percentage points.

[3] According to the WHO, "Immunization is the process whereby a person is made immune or resistant to an infectious disease, typically by the administration of a vaccine. Vaccines stimulate the body's own immune system to protect the person against subsequent infection or disease".

*Since 2000, OIC countries made great progress and Measles immunization coverage increased by 16 percentage points compared to 13 percentage points in the world*

In developed countries, the share of infants immunized against Measles increased from 90 per cent in 2000 to 92 per cent in 2011. In other OIC developing countries, about 85 per cent of infants were immunized against Measles in 2011 compared to 72 per cent in 2000. Notably, other developing countries recorded higher immunization coverage than the world average and registered an increase of 13 percentage points during 2000-2011.

Measles immunization coverage has increased substantially in OIC member countries and coverage rate jumped from 65 per cent in 2000 to 80 per cent in 2011. However, despite this significant improvement, Measles immunization coverage in OIC countries remained below the world and other developing countries averages. Despite recording comparatively low coverage, member countries witnessed more rapid improvement in coverage rate with an impressive increase of 16 percentage points during 2000-2011.

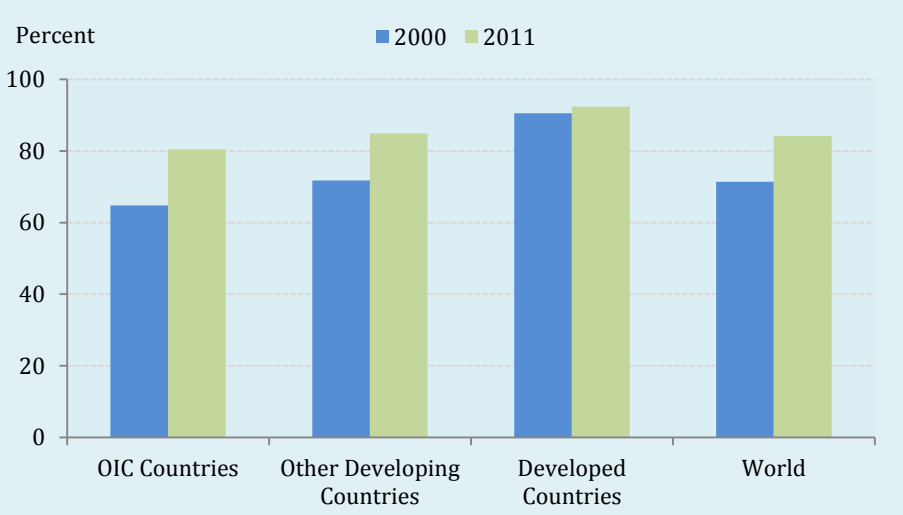



**Figure 2.13:** Measles Immunization Coverage

OIC countries made great progress.

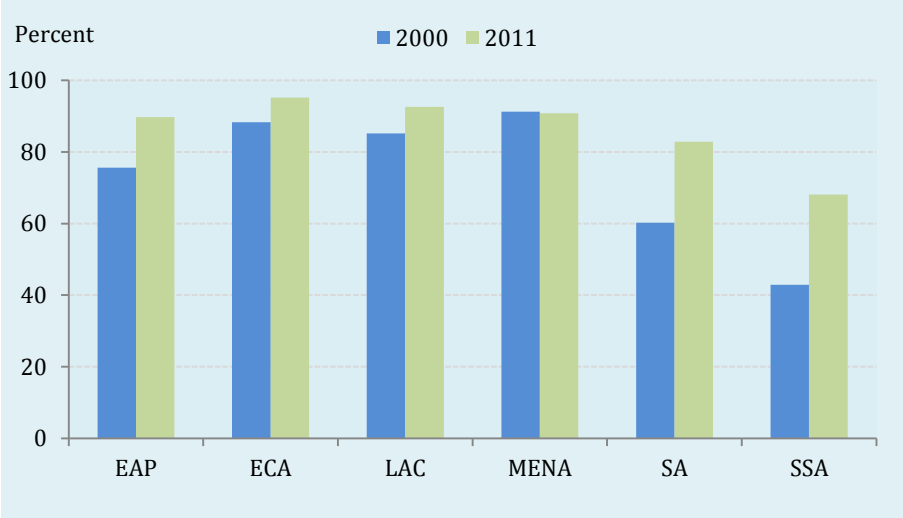
*Source:* Table A.3 in the Statistical Appendix

With the exception of SSA, Measles immunization coverage remained quite high across the OIC regions in 2011. During the period under consideration, ECA region registered the highest immunization coverage rate of 95 per cent, followed by LAC (93 per cent), MENA (91 per cent) and EAP (90 per cent). In contrast, SSA is still seriously lagging behind and despite recording significant improvement immunization coverage remained very low compared to other OIC regions. As shown in Figure 2.14, about 68 per cent of children in SSA were immunized against Measles in 2011 compared to 43 per cent in 2000, corresponding to an increase of 25 percentage points. All other OIC regions have recorded quite impressive progress in combating Measles during the period 2000-2011 and their immunization coverage rates remained higher than the OIC, other developing countries and world averages. As shown in Figure 2.14, share of children immunized against Measles has increased by 14 percentage points in EAP, 7 percentage points in LAC, 7 percentage points in ECA, 23 percentage points in SA and 25 percentage points in SSA.

**Figure 2.14:** Measles Immunization Coverage in OIC Regional Groups

Immunization coverage remained quite high across the OIC regions

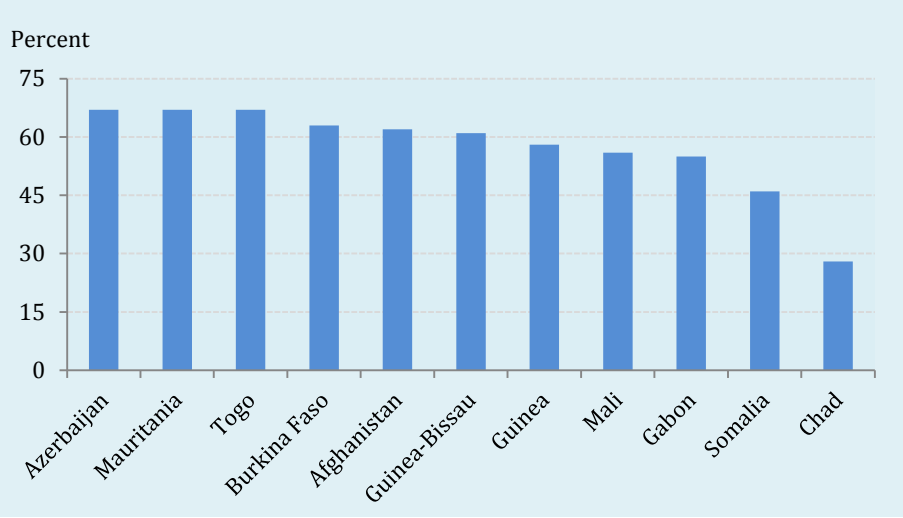
*Source:* Table A.3 in the Statistical Appendix




OIC Member countries recorded impressive rates of immunization coverage for Measles in 2011. 26 member countries recorded coverage rate of 90 per cent or more, 18 member countries were within the 70-89 per cent range, and 12 member countries in Sub-Saharan Africa and South and Central Asia had coverage rates below 70 per cent (see Annex Table A.3). Among the member countries with available data, more than half of total infants failed to get vaccination for Measles in Côte d'Ivoire (51 per cent), Somalia (54 per cent) and Chad (72 per cent).

**Figure 2.15:** Member Countries with Lowest Measles Immunization Coverage, 2011

*Source:* Table A.3 in the Statistical Appendix




*DTP3 Immunization Coverage*

*DTP immunization in OIC countries increased to 77% compared to 85% in the world*

DTP refers to a combination of vaccines against three infectious diseases: Diphtheria, Tetanus and Pertussis (whooping cough). DTP immunization coverage is one of the key indicators to gauge the performance of immunization programme in a country/region. Global coverage of third dose of DTP among one year old has increased from 74 per cent in 2000 to 83 per cent in 2011, corresponding to an increase of 9 percentage points (Figure 2.16). In developed countries, 96 per cent of children received DTP3 vaccine in 2011 compared to

92 per cent in 2000. While, in other developing countries DTP3 coverage has increased from 75 per cent in 2000 to 84 per cent in 2011, reflecting an increase of 9 percentage points.

In line with the global trends, OIC member countries also witnessed surge in DTP3 immunization among one year olds and their coverage rate increased form 67 per cent in 2000 to 77 per cent in 2011. Although coverage rate in OIC countries remained slightly below the world and other developing countries averages, they are rapidly catching up and recorded an increase of 10 percentage points during the period in consideration.

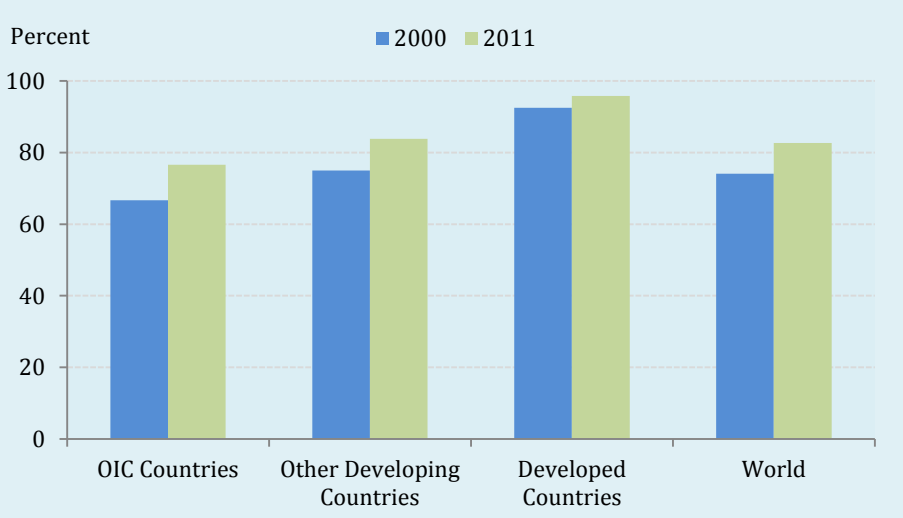



**Figure 2.16:** DTP3 Immunization Coverage

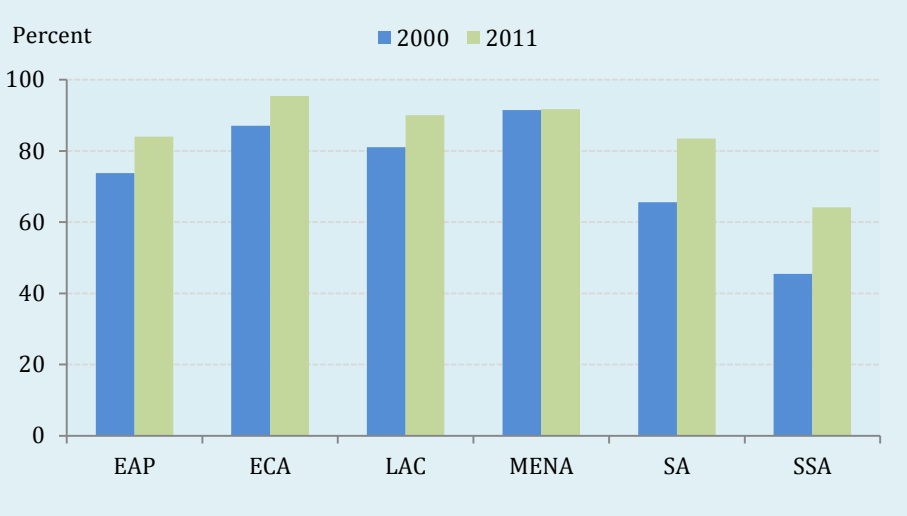
OIC member countries made significant gains since 2000.

*Source:* Table A.3 in the Statistical Appendix

During the same period, coverage of DTP3 vaccination in the first year of life has been improved across the OIC regions (Figure 2.17). ECA region registered the highest immunization coverage rate of 95 per cent, followed by MENA (92 per cent) and LAC (90 per cent). In contrast, SSA is still seriously lagging behind and despite some improvement; DTP3 immunization coverage remained very low in this region. As shown in Figure 2.17, about 64 per cent of children in SSA were immunized against DTP in 2011 compared to 45 per cent in 2000, corresponding to an increase of 19 percentage points. All other OIC regions have shown quite impressive progress during the period 2000-2011 where DTP3 coverage rates in ECA, LAC, and MENA regions remained higher than the OIC, other developing countries and world averages. As shown in Figure 2.17, during the period 2000-2011, the share of children receiving DTP3 vaccine during the first year of life has witnessed an increase of 10 percentage points in EAP region, 8 percentage points in ECA, 9 percentage points in LAC, 17 percentage points in SA.

**Figure 2.17:** DTP3 Immunization Coverage in OIC Regions

Immunization coverage has been improved across the OIC regions.




*Source:* Table A.3 in the Statistical Appendix

DTP3 immunization coverage remained quite high in majority of OIC member countries. In 2011, see Annex Table A.3, 26 member countries recorded coverage rate of 90 per cent or more, 11 member countries were within the 80-89 per cent range and coverage rate was recorded between 70 to 76 per cent for eight member countries. Ten member countries, in Sub-Saharan Africa and South and East Asia, have coverage rates below 70 per cent. Among the member countries with available data, more than 50 per cent of infants failed to receive immunization for DTP3 in Nigeria (53 per cent), Gabon (55 per cent), Somalia (59 per cent) and Chad (78 per cent) (Figure 2.18).

**Figure 2.18:** Member Countries with Lowest DTP3 Immunization Coverage, 2011


*Source:* Table A.3 in the Statistical Appendix

*Bacillus Calmette–Guérin (BCG) Immunization Coverage*

Bacillus Calmette–Guérin (BCG) is a vaccine against tuberculosis. According to WHO, it was first used to immunize humans in 1921, and following its introduction into the EPI in 1974, BCG soon reached global coverage rates exceeding 80 per cent in countries endemic for Tuberculosis. Worldwide BCG immunization coverage has increased since 2000. As shown in Figure 2.19, globally the share of children immunized against BCG has increased from 74 per cent in 2000 to 83 per cent in 2010, corresponding to an increase of 9 percentage points.

In other developing countries, with an improvement of 10 percentage points, immunization coverage against tuberculosis climbed from 81 per cent up to 91 per cent during the last decade remaining above the world average. BCG immunization coverage has substantially increased in OIC countries and share of infants immunized against BCG jumped from 76 per cent in 2000 to 87 per cent in 2010, corresponding to an increase of 11 percentage points.

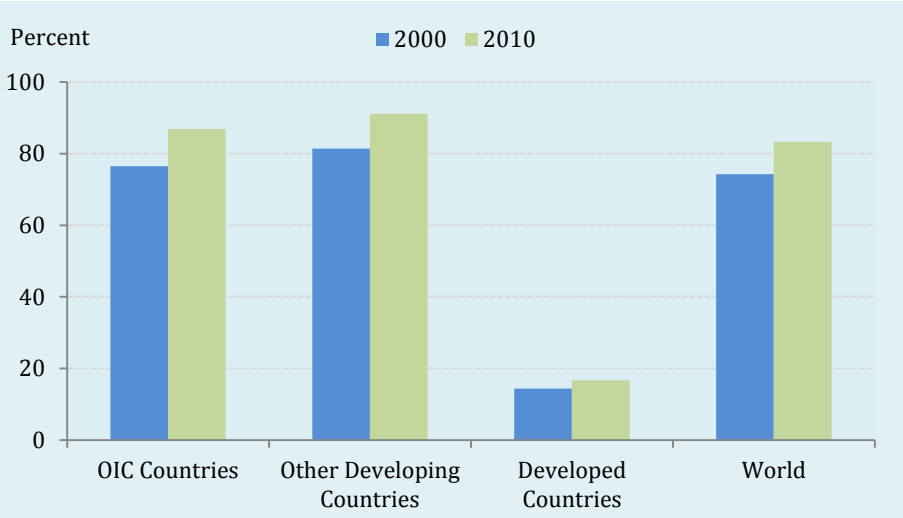



**Figure 2.19:** BCG Immunization Coverage

Coverage rate remained quite high in OIC countries.

*Source:* Table A.3 in the Statistical Appendix

Among the OIC regional groups, BCG immunization coverage ranged from a low of 61 per cent in SSA to a high of 96 per cent in ECA region, whereas 93 per cent of infants were immunized against BCG in MENA, 87 per cent in SA and 83 per cent in SSA and 57 per cent in LAC (Figure 2.20). In 2010, on average, BCG immunization coverage in ECA and MENA regions remained higher than or equal to the OIC average, other developing countries and developed and world averages. Notably, among the OIC regions, LAC recorded the lowest BCG immunization coverage rate in 2010.

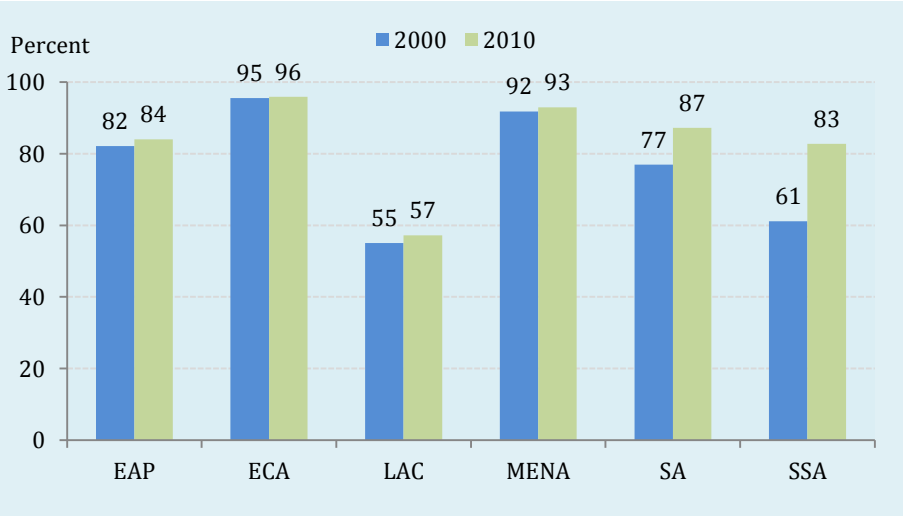



**Figure 2.20:** BCG Immunization Coverage OIC Regions

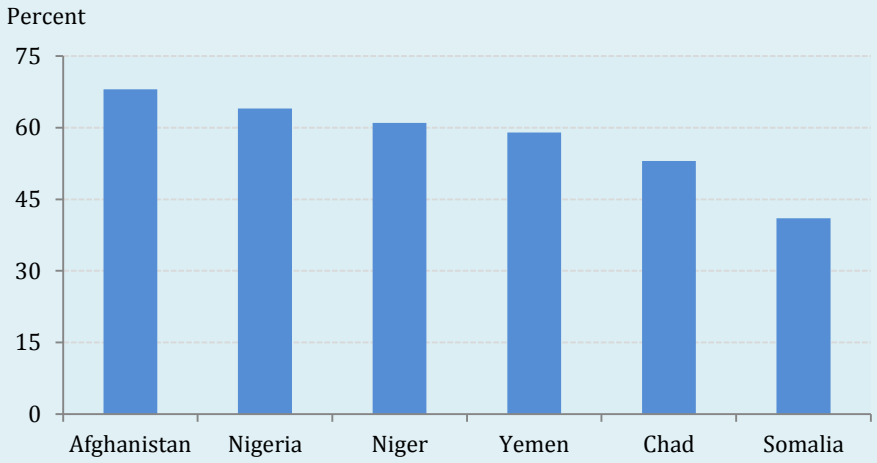
Coverage rates remained significantly high in five OIC regions.

*Source:* Table A.3 in the Statistical Appendix

At the individual country level, majority of OIC member countries recorded impressive rates of immunization for BCG in 2010. 36 member countries recorded coverage rate of 90

per cent or more and nine member countries were within the 80-89 per cent range (see Annex Table A.3). Six member countries, in Sub-Saharan Africa and South Asia, have coverage rates below 70 per cent. Among the member countries with available data, more than 45 per cent of total infants failed to get BCG vaccination in Chad (47 per cent) and Somalia (59 per cent) (Figure 2.21).

**Figure 2.21:** Member Countries with Lowest BCG Immunization Coverage, 2010




*Source:* Table A.3 in the Statistical Appendix

*Polio Immunization Coverage*

*Afghanistan, Nigeria and Pakistan are the last three polio endemic countries in the world*

Polio is an infectious viral disease transmitted through person-to-person contact, which mainly affects young children. One in 200 infections leads to irreversible paralysis, usually in the legs. Though polio is not curable, it can be prevented especially through childhood vaccination. There are two types of vaccines that are being used widely to protect against polio: Inactivated Polio Vaccine (IPV) and Oral Polio Vaccine (OPV). As of September 2013, polio is endemic in only three countries: Afghanistan, Nigeria and Pakistan (all of them OIC members) whereas 10 countries are experiencing outbreaks of poliovirus following an importation. Six out of these 10 importation countries are OIC member countries namely: Chad, Côte d'Ivoire, Mali, Niger, Somalia and Uganda (Global Polio Eradication Initiative, 2013).

Global coverage rate of third dose of Polio vaccine (OPV3) has increased from 75 per cent in 2000 to 82 per cent in 2011, corresponding to an increase of 7 percentage points (Figure 2.22). In developed countries 95 per cent of children were immunized against polio in 2011 compared to 93 per cent in 2000. In other developing countries, 83 per cent of children received OPV3 vaccine in 2011 compared to 75 per cent in 2000, corresponding to an increase of 8 percentage points. With an improvement of seven percentage points, OIC member countries registered coverage rate of 75 per cent in 2011 compared to 68 per cent in 2000.

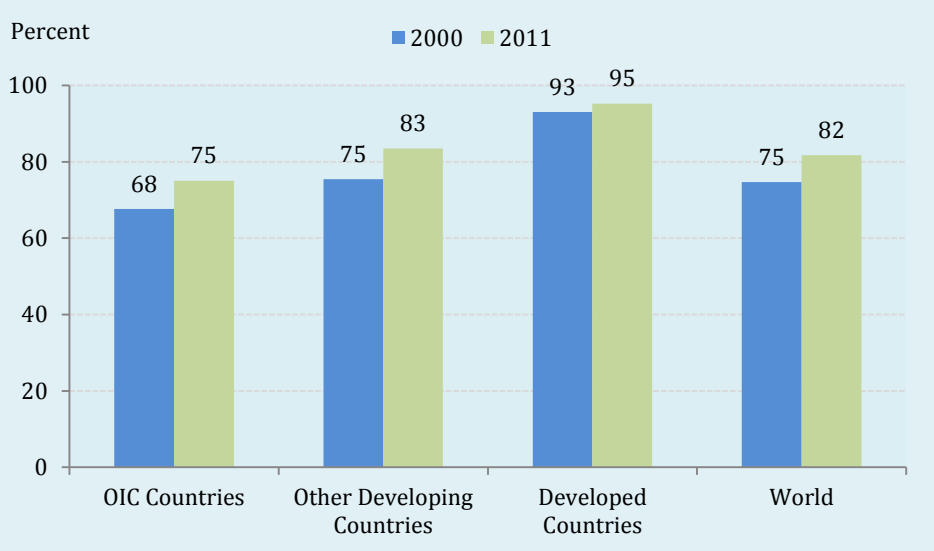



**Figure 2.22:** Polio Immunization Coverage

OIC coverage rate remained higher than the world and developing countries.

*Source:* Table A.3 in the Statistical Appendix

In 20011, among the OIC regions polio immunization coverage ranged from a low of 74 per cent in EAP to a high of 95 per cent in ECA and LAC regions; while 93 per cent of infants in MENA, 83 per cent in SA, and 75 per cent in SSA were immunized against polio (Figure 2.23). In 2011, polio coverage rates remained quite impressive across the OIC regions and with the exception of EAP region; they registered immunization coverage higher than the averages of OIC, other developing countries and the world as a whole.

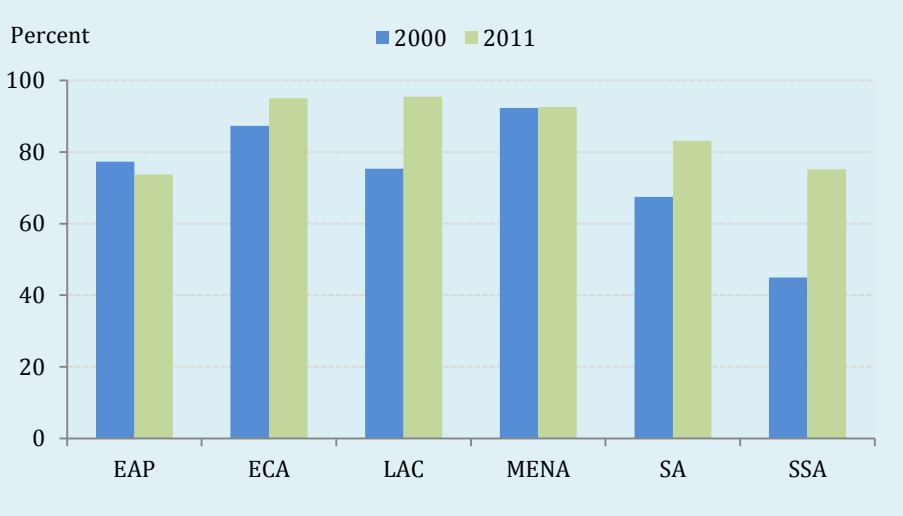


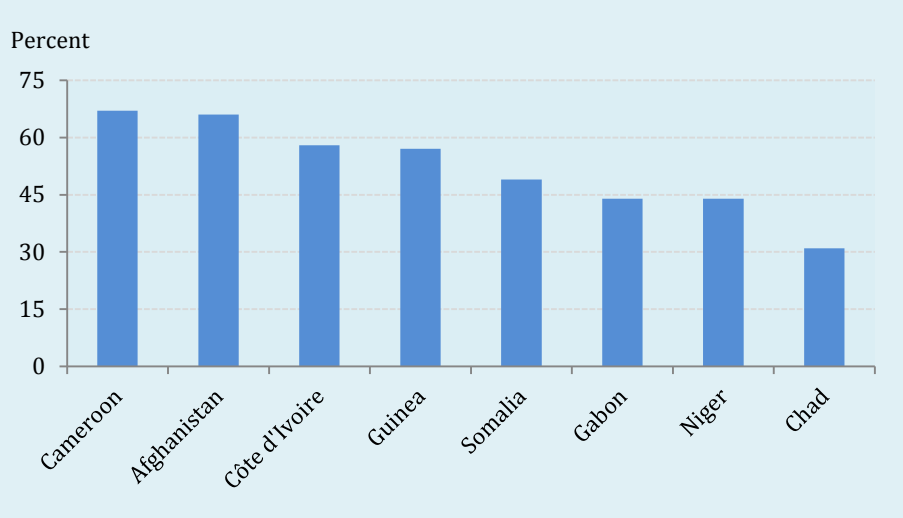

**Figure 2.23:** Polio Immunization Coverage in OIC Regional Groups

Coverage rates remained significantly high in OIC regions.

*Source:* Table A.3 in the Statistical Appendix

At the individual country level, OIC member countries registered very good performance with respect to OPV3 immunization coverage in 2011. As shown in Annex Table A.3, 28 member countries recorded coverage rate of 90 per cent or more, nine member countries were within the 80-89 per cent range; whereas, coverage rate was recorded between 70 to 78 per cent for 11 member countries. Eight member countries, in Sub-Saharan Africa and South Asia, have coverage rates below 70 per cent. Among the member countries with available data, more than half of total infants failed to receive vaccination in Somalia (51 per cent), Gabon (56 per cent), Niger (56 per cent) and Chad (69 per cent) (Figure 2.24).

**Figure 2.24:** Member Countries with Lowest HepB3 Immunization Coverage, 2011




*Source:* Table A.3 in the Statistical Appendix

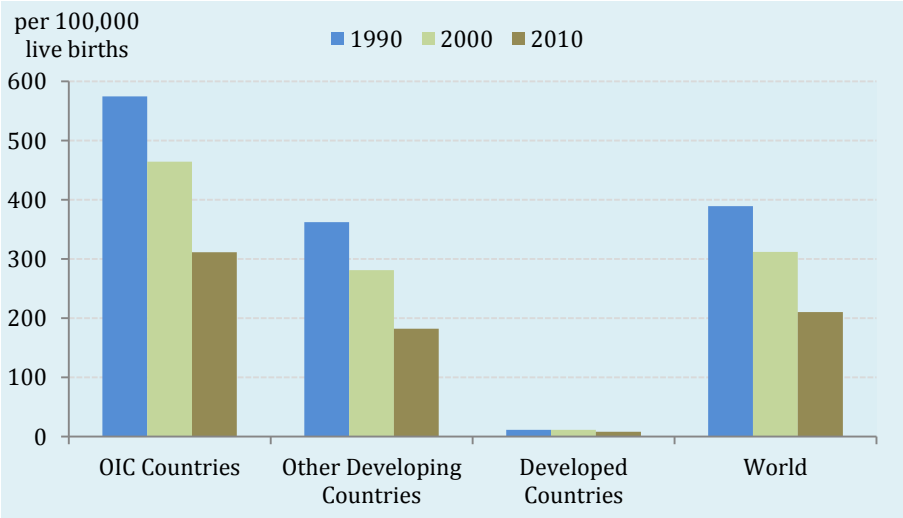
### 2.1.6 Maternal Mortality

*Every year about 0.2 million maternal deaths occur in OIC member countries which corresponds to 50 % of the world total maternal deaths*

Pregnancy and childbirth related complications remained the leading cause of death and disability for women age 15-49 especially in developing countries. According to the latest estimates (WHO, 2011), globally nearly a half million women die during and following pregnancy and childbirth. About 99.5 per cent of these maternal deaths are occurring in developing countries especially in Sub-Saharan Africa and Asia. In OIC member countries, about 0.2 million women die from preventable causes related to pregnancy and childbirth. This corresponds to 50 per cent of the world total maternal deaths in 2008. Majority of the maternal deaths in OIC countries occurred in SSA and SA regions and these two regions accounted for about 90 per cent of the total maternal deaths (i.e. 66 per cent and 23 per cent respectively) in 2010.

**Figure 2.25:** Maternal Mortality Rate

Situation has been improved across the world since 1990.




*Source:* Table A.4 in the Statistical Appendix

Over the years, world has made some progress to control the maternal deaths and MMR has declined from 389 deaths per 100,000 live births in 1990 to 210 deaths in 2010, corresponding to a decrease of 46 per cent (Figure 2.25). A similar trend can be observed for other

developing countries as well. MMR in developed countries remained comparatively negligible at 8 deaths per 100,000 live births. OIC member countries also witnessed some improvement in maternal health conditions and MMR declined from 574 deaths in 1990 to 311 deaths in 2010, corresponding to a decrease of 46 per cent. However, compared to other groups, OIC member countries recorded higher MMR in 2010.

During the last two decades, maternal mortality rate has declined across the OIC regional groups. As shown in Figure 2.26, in 2010, MMR ranged from a low of 55 and 62 deaths per 100,000 live births in ECA and MENA respectively to a high of 587 and 281 deaths in SSA and SA, respectively. Among other regions, the average MMR was 200 deaths per 100,000 live births in EAP and 130 deaths in LAC. Between 1990 and 2010, OIC member countries in MENA region witnessed the highest decrease in MMR (69 per cent) followed by EAP (64 per cent), SA (58 per cent), SSA (38 per cent), LAC (28 per cent), and ECA (21 per cent). With the exception of SSA and SA region, MMR for OIC regions remained below the world and OIC averages in 2010.

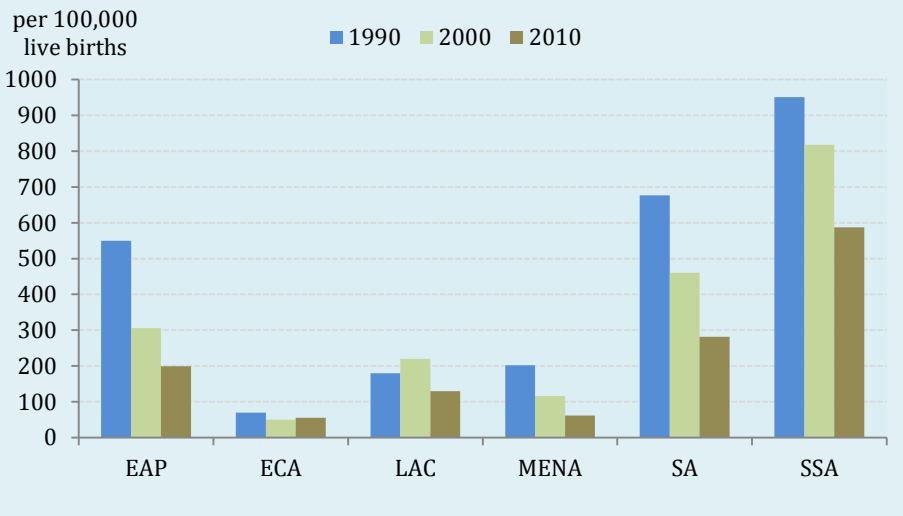


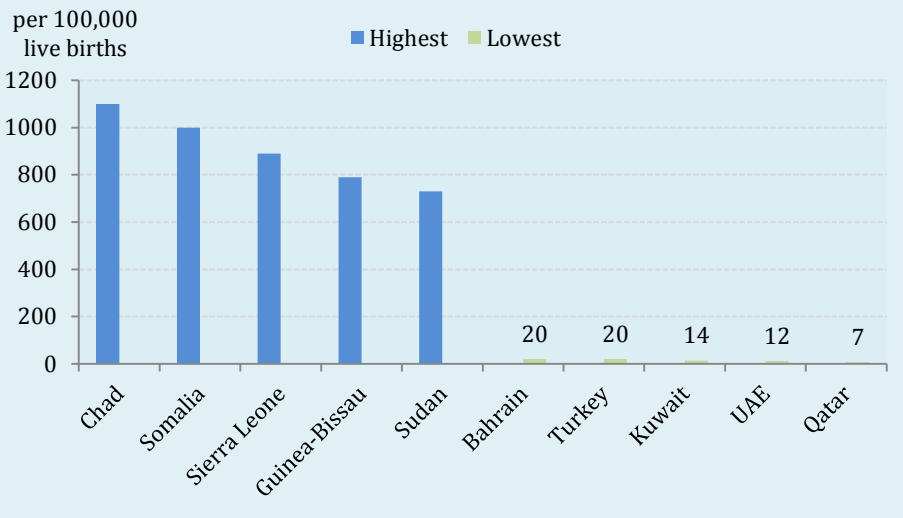

**Figure 2.26:** Maternal Mortality Rate in OIC Regions

MMR remained alarmingly high in SA and SSA regions.

*Source:* Table A.4 in the Statistical Appendix

As shown in Figure 2.27, Chad recorded the highest MMR (1,100 maternal deaths per 100,000 live births) in OIC region, followed by Somalia (1,000 deaths), and Sierra Leon (890 deaths). Among these countries, Chad is ranked 1st with respect to highest MMR in the world, Somalia is ranked 2nd, and Sierra Leon is ranked 4th. In contrast, Qatar recorded the lowest MMR in OIC region (7 maternal deaths per 100,000 live births) followed by United Arab Emirates (12 deaths), and Kuwait (14 deaths). Between 1990 and 2010, 30 member countries registered more than 40 per cent decrease in MMR. Out of these 30 member countries 13 are from MENA, 7 from SSA, 5 from ECA, 3 from SA and 2 from EAP. The member countries with highest decline in MMR from SSA region are as follow: Benin, Gambia, Togo, Senegal, Mozambique, Guinea and Niger. On the other hand, three member countries namely: Kyrgyzstan, Somalia and Suriname witnessed 5 per cent, 9 per cent and 19 per cent increase in MMR respectively (see annex Table A.4).

**Figure 2.27:** Member Countries with Highest and Lowest Maternal Mortality Rates, 2010




*Source:* Table A.4 in the Statistical Appendix

### 2.1.7 Infant Mortality

Infant mortality rate (IMR) indicates the number of deaths of babies less than one year of age per 1,000 live births. Generally, IMR correlates very strongly with the quality of maternal and newborn health care services and preventive measures in a country. Therefore, it is considered as an important indicator of overall coverage and effectiveness of a health care system. In addition, it also reflects the effects of socio-economic conditions on the maternal and newborns health and survival.

*Despite 33% decrease in IMR since 1990, still one in every 20 children die before their first birthday in OIC countries compared to one in 27 children in world.*

Since 1990, infant mortality rates have witnessed remarkable decline worldwide. As shown in Figure 2.28, on average, IMR for both sexes has declined from 61 deaths per 1,000 live births in 1990 to 37 in 2011, corresponding to a decrease of 39 per cent. In other developing countries, IMR declined from 59 deaths per 1,000 live births in 1990 to 35 in 2011, corresponding to a decrease of 41 per cent. Compared to other groups, IMR remained very low in developed countries. On average, developed countries recorded about 4 deaths per 1,000 live births in 2011 compared to 8 deaths in 1990.

The infant mortality situation has been improved in the OIC member countries as well and their IMR exhibited a down ward trend during the period 1990-2011. As shown in Figure 2.28, the average IMR in OIC countries has declined from 83 deaths per 1,000 live births in 1990 to 51 in 2011, corresponding to a decrease of 39 per cent. However, despite this impressive progress, IMR in member countries remained quite higher than the other developing countries and world. In 2011, one in every 20 children died before their first birthday in OIC countries compared to one in 28 children in other developing countries, one in 27 children in world and one in 231 children in developed countries.

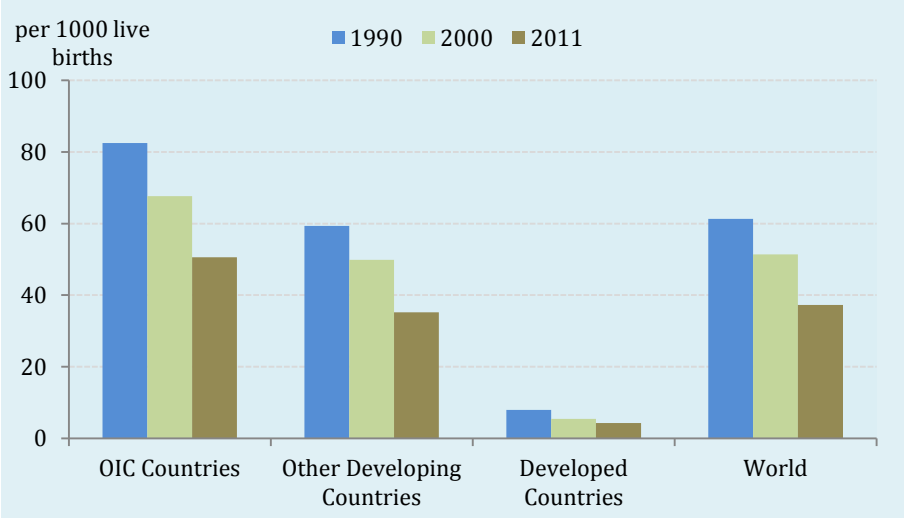



**Figure 2.28:** Infant Mortality Rate

OIC country witnessed significant improvement since 1990.

*Source:* Table A.4 in the Statistical Appendix

During the last two decades, infant mortality rate has declined across the OIC regions. Yet, substantial differences exist among the regions. As shown in Figure 2.29, in 2011, average IMR ranged from a low of 23 and 24 deaths per 1,000 live births in EAP and MENA regions to a high of 76 and 54 deaths per 1,000 live births in SSA and SA, respectively. Average IMR was recorded at 26 deaths per 1000 live births in ECA. During the period under consideration, member countries in ECA region witnessed the highest decrease in IMR (58 per cent) followed by EAP (54 per cent), MENA (53 per cent) and SA (45 per cent). On the other hand, SSA where a bulk of OIC infant deaths occurs has registered only 35 per cent decrease in IMR during 1990-2011. In 2011, average IMR for member countries in EAP, ECA, LAC and MENA remained below the OIC, other developing and world averages (51, 35 and 37 deaths per 1,000 live births, respectively).

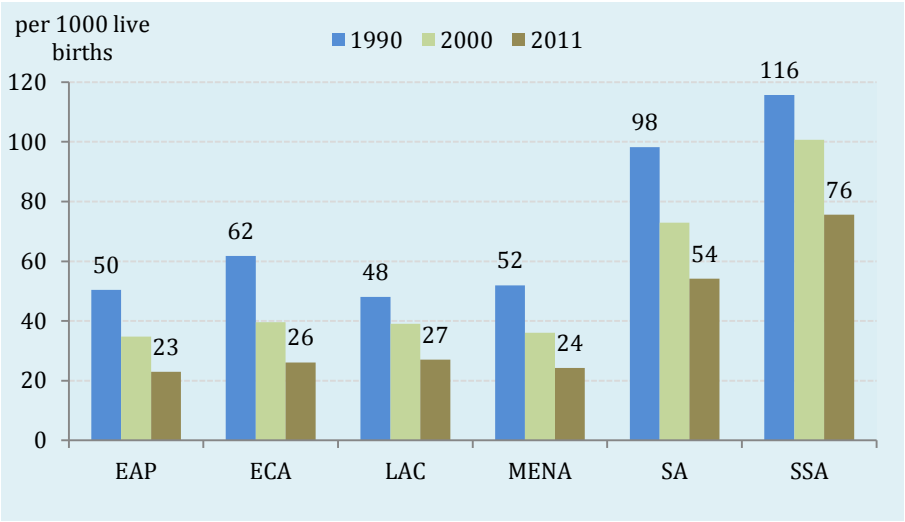



**Figure 2.29:** Infant Mortality Rate in OIC Regional Groups

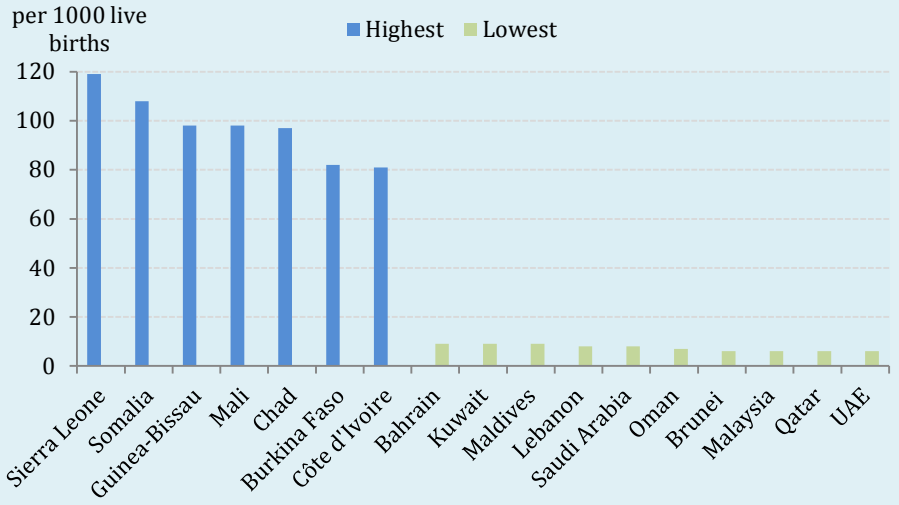
IMR remained highest in SSA region.

*Source:* Table A.4 in the Statistical Appendix

At the individual country level, IMR in OIC member countries ranges from a low of 6 deaths per 1000 live births in Brunei, Malaysia, Qatar and United Arab Emirates to a high of 119 in Sierra Leone (Figure 2.30). Seven member countries from MENA region registered IMR less than ten per cent (ranging from 6 to 9 deaths per 1,000 live births). On the other hand, seven

member countries from SSA region registered IMR of over 80 deaths per 1,000 live births. In 2011, IMR ranged between 66 to 79 deaths per 1,000 live births in ten member countries (eight of them from SSA region). In 6 of these countries (all from SSA), IMR was greater than 70 deaths per 1,000 live births. On the other hand, 22 member countries registered IMR ranging from 10 to 49 deaths per 1,000 live births. In seven of these 22 countries, IMR remained lower than 20 deaths per 1,000 live births. In general, 32 member countries registered IMR lower than the OIC average of 51 deaths per 1,000 live births. In 26 of these 32 countries, IMR remained lower than the world and other developing countries averages of 37 and 35 deaths per 1000 live births (see annex Table A.4).

**Figure 2.30:** Member countries with Highest and lowest IMR, 2011




*Source:* Table A.4 in the Statistical Appendix

## 2.2 Child and Adolescent Health

### 2.2.1 Under-5 Mortality

Under-five mortality rate (U5MR) or child mortality rate is one of the most important indicators on child health. It basically reflects the overall coverage and effectiveness of health care services alongwith socio-economic development in a country.

Over the years, U5MR has declined across the world. As shown in Figure 2.31, global U5MR has fallen from 92 deaths per 1,000 live births in 1990 to 61 in 2011, corresponding to a decrease of 33 per cent. U5MR also witnessed a declining trend in other developing countries and it fell below the world average in 2011. On average, U5MR in other developing countries declined from 91 deaths per 1,000 live births in 1990 to 57 in 2011, corresponding to a decrease of 37 per cent.

*In OIC countries, 1 in 11 children die before their fifth birthday compared to 1 in 16 children in the world*

The under-five mortality situation has also been improved in the OIC member countries and U5MR has declined from 130 deaths per 1,000 live births in 1990 to 88 in 2011, corresponding to decline of 32 per cent. However, despite this improvement, one in 11 children in OIC member countries die before their fifth birthday compared to one in 17 children in other developing countries and one in 16 children in the world.

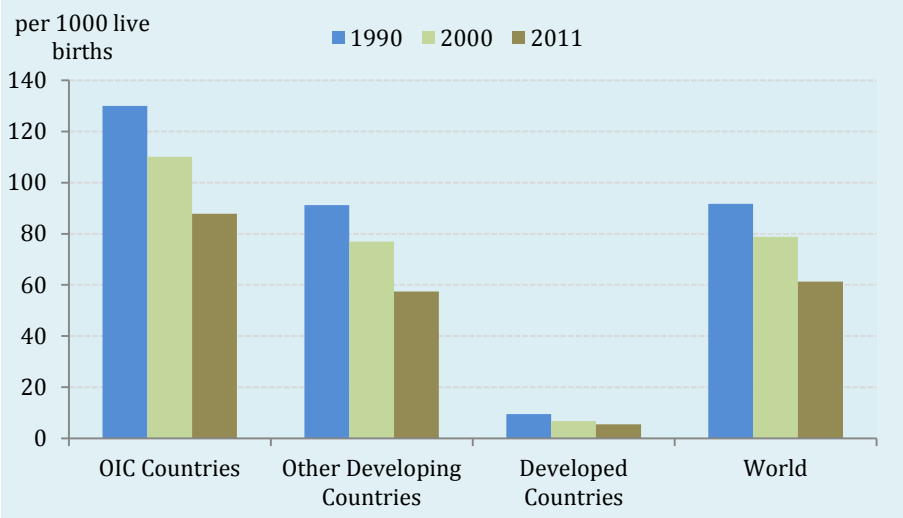



**Figure 2.31:** Under-Five Mortality Rate

Despite progress, U5MR remained comparatively very high in OIC countries.

*Source:* Table A.4 in the Statistical Appendix

Under-five mortality has declined across the OIC regions. Yet, substantial differences exist among the regions. As shown in Figure 2.32, average U5MR for both sexes ranged from a low of 28 and 29 deaths per 1,000 live births in EAP and MENA regions to a high of 119 and 67 deaths per 1,000 live births in SSA and SA regions, respectively. In other regions, the average U5MR was 30 deaths per 1,000 live births in ECA and 31 in in LAC. During the period under consideration, U5MR in EAP, ECA and MENA regions decreased by 63 per cent, 61 per cent and 57 per cent, respectively. Meanwhile, SA, SSA and LAC regions experienced 49 per cent, 39 per cent and 38 per cent decrease in U5MR, respectively.

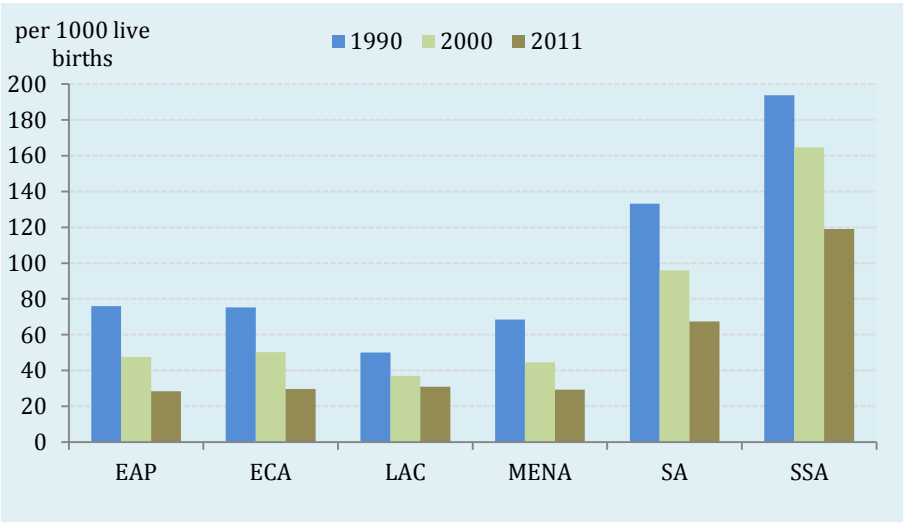



**Figure 2.32:** Under-Five Mortality Rate in OIC Regional Groups

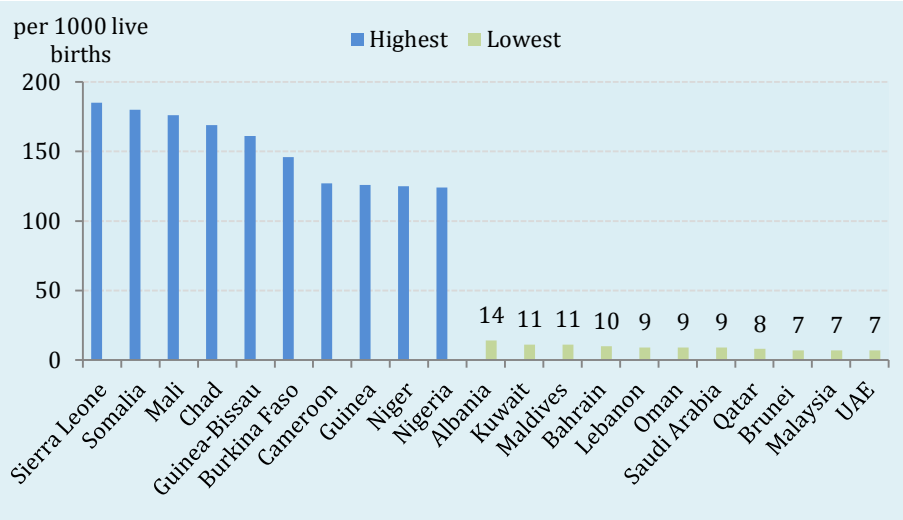
U5MR remained significantly high in SSA and SA regions.

*Source:* Table A.4 in the Statistical Appendix

At the individual country level, U5MR in OIC member countries ranges from a low of 7 deaths per 1,000 live births in Brunei, Malaysia and United Arab Emirates to a high of 185 in Sierra Leone (Figure 2.33). Ten member countries from MENA region registered the lowest U5MR, ranging from 7 to 16 deaths per 1,000 live births. In contrast, 16 member countries from SSA region registered IMR of over 100 deaths per 1,000 live births. Seven of these 16 member countries are among the top 20 countries with highest U5MR in the world. In 2011, Sierra Leone was ranked 1st with respect to U5MR in the world followed by Somalia

(ranked 2nd), Mali (ranked 3rd), Chad (ranked 11th), Guinea Bissau (ranked 13th), and Burkina Faso (ranked 14th). On the other hand, U5MR remained less than 50 deaths per 1,000 live births for 29 members. In 15 of these 29 countries, U5MR remained even less than 20 deaths per 1,000 live births. In general, 37 member countries registered U5MR lower than the OIC average of 88 deaths per 1000 live births. In 30 of these 37 countries, U5MR remained lower than the world and other developing of 57 and 61 deaths per 1,000 live births (see annex Table A.4).

**Figure 2.33:** Members with Highest and Lowest Under-5 Mortality Rate, 2011




*Source:* Table A.4 in the Statistical Appendix

### 2.2.2 Causes of Deaths among Children under Age 5

Globally, the number of deaths among children under the age of five has declined from 12.4 million in 1990 to 8.1 million in 2010, corresponding to a decrease of 35 per cent. Almost 70 per cent of under-five deaths take place during the first year of life (UNICEF, 2010). Under-five mortality remained highly concentrated in developing countries which accounted for over 99 per cent of world total in 2010. This means that about 24,000 children under the age of five died every day in developing countries. According to the WHO estimates, three quarters of total deaths were caused by infectious diseases and birth related complications which can easily be prevented by vaccination, antenatal health care and skilled attendance of birth.

*In OIC countries, 3.9 million children die before reaching their fifth birth day, corresponding to 45 % of total under five deaths in the world*

As shown in Figure 2.34, about 77 per cent of under-five deaths in developing countries were caused by pneumonia (20 per cent), diarrhea (11 per cent), malaria (4 per cent), neonatal pneumonia or sepsis (6 per cent), preterm birth (17 per cent), birth asphyxia (11 per cent) and congenital abnormalities (8 per cent) in 2010. More than half of the total deaths (59 per cent) were caused by only four communicable diseases (pneumonia, diarrhea, preterm birth and birth asphyxia).

In contrast, prevalence of under-five mortality remained very low in developed countries which accounted for less than one per cent of world total deaths in 2010. In these countries, major causes of deaths are more skewed toward complications associated with pregnancy and delivery than the infectious diseases. As shown in Figure 2.34, almost half of total

under-five deaths in developed countries were caused by preterm birth complications (21 per cent) and congenital abnormalities (25 per cent) in 2010. While, mainly due to higher immunization coverage, only 5 per cent of deaths were caused by four communicable diseases. In majority of the developed countries, women show a growing tendency to delay their first pregnancies which increases the risk of congenital anomalies (WHO, The European Health Report 2005).

*More than half of under-five deaths in OIC countries are caused by Pneumonia, Diarrhea and Malaria*

In OIC member countries, the major causes of under-five mortality in OIC members are similar to those in developing countries mentioned above. As shown in Figure 2.34, in 2010 almost half (44 per cent) of under-five deaths were caused by four communicable diseases: pneumonia (17 per cent), diarrhea (10 per cent), malaria (11 per cent) and neonatal sepsis (6 per cent). While, on the other hand, 32 per cent of deaths were caused by preterm birth (16 per cent), birth asphyxia (10 per cent) and congenital abnormalities (6 per cent**).**

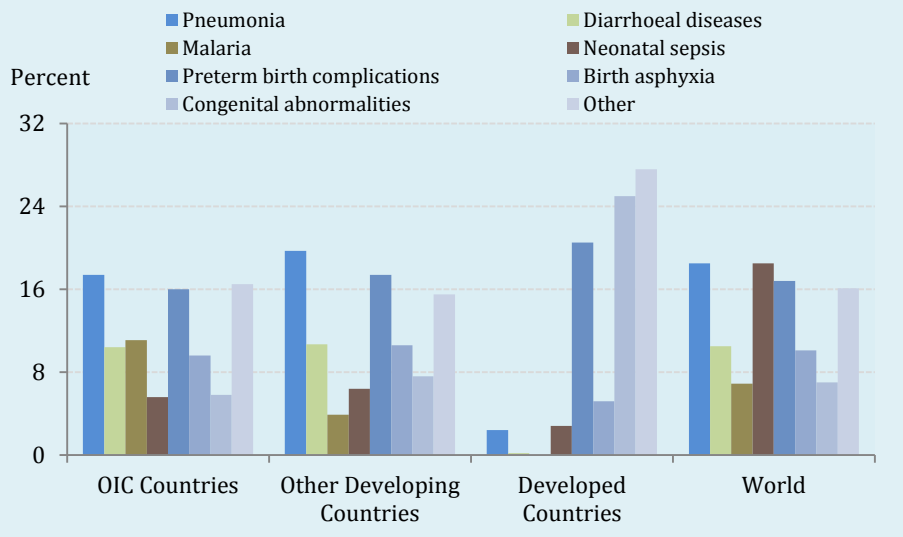



**Figure 2.34:** Major Causes of Under-five Deaths, 2010

Pneumonia, Diarrhea and Malaria remained the major causes of under five deaths in OIC countries.

*Source:* Table A.5 in the Statistical Appendix

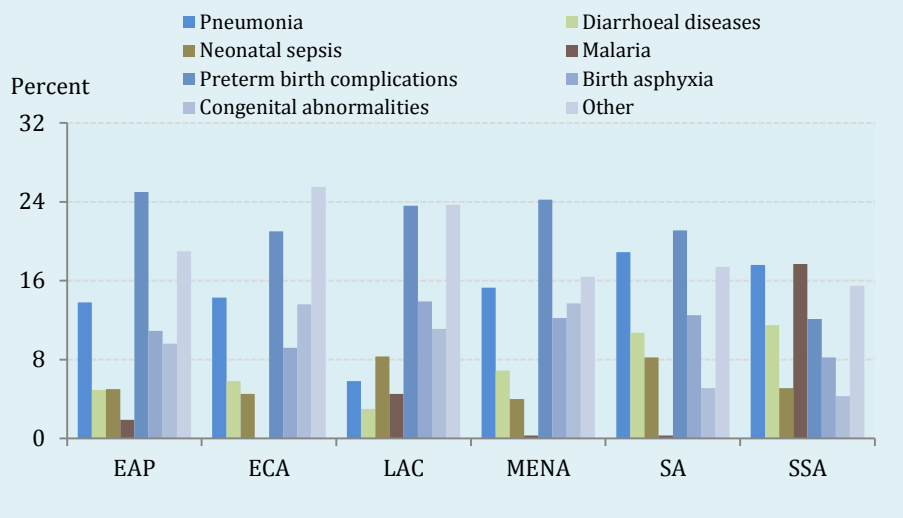
Among the OIC regional groups, prevalence of under-five mortality remained quite high in SSA and SA regions. As shown in Figure 2.35, about 83 per cent of OIC total under-five deaths occurred in these two regions (62 per cent in SSA and 21 per cent in SA). Meanwhile, MENA region accounted for nine per cent of OIC total under-five deaths followed by EAP region (6 per cent), ECA region (3 per cent) and LAC region (about 1 per cent).

The major causes of under-five deaths remained quite similar in all OIC regions. However, the magnitude of burden of disease varies depending, among others, on socio-economic conditions and status and provision of health care services across the regions. As shown in Figure 2.35, four communicable diseases accounted for 53 per cent of total deaths in SSA followed by 38 per cent in SA, 26 per cent in EAP, 22 per cent in LAC, 26 per cent in MENA and 25 per cent in ECA region. Compared to other regions, deaths attributed to malaria remained quite high in SSA (18 per cent). On the other hand, complications related to pregnancy and delivery caused 50 per cent of deaths in MENA, 44 per cent in ECA, 49 per cent in LAC, 46 per cent in EAP, 39 per cent in SA and 24 per cent in SSA.

**Figure 2.35:** Major Causes of Under-five Deaths in OIC Regions, 2010

Major causes of under-five deaths remained quite similar in all OIC regions.

*Source:* Table A.5 in the Statistical Appendix




### 2.2.3 Children under Age 5 Stunted, Underweight and Overweight

Prevalence of stunting, underweight and overweight in children under the age of five are very important indicators for measuring long term nutritional imbalances and malnutrition in a population. These indicators help to monitor the number of children suffering from growth retardation and therefore are more vulnerable to death and disability. All children under 5 years with weight-for-age less than -2 standard deviations (SD) of the WHO Child Growth Standards median are considered as underweight where as those with height-for-age less than -2 SD of the WHO Child Growth Standards median are considered as stunted. On the other hand, all children under 5 years with weight-for-height greater than +2 SD of the WHO Child Growth Standards median are considered as overweight.

In the last two decades, there has not been any significant progress in the nutritional status of under-fives across the world. As shown in Figure 2.36, in 2000-2010, prevalence of stunting, underweight and overweight was 32 per cent, 22 per cent and 6 per cent, respectively compared to 36 per cent, 24 per cent and 5 per cent in 1990-1999, respectively. This means that worldwide prevalence of stunting in children under the age of five has decreased by three percentage points, prevalence of underweight declined by two percentage points; whereas prevalence of overweight increased by one percentage points during 19990-2010. A similar trend can be observed in other developing countries where prevalence of stunting decreased from 36 per cent in 1999-1999 to 32 per cent in 2000-2010, prevalence of underweight declined from 24 per cent to 23 percent; whereas prevalence of overweight decreased from 5 per cent to 4 per cent. In developed countries prevalence of stunting, underweight and overweight remained comparatively very low. In 2000-2010, number of children stunted, underweight and overweight in developed countries accounted for only three per cent, one per cent and seven per cent of total children under the age of five, respectively. The situation in OIC countries also remained almost unchanged and the prevalence of stunting, underweight and overweight was 37 per cent, 23 per cent and 9 per cent in 2000-2010 respectively compared to 41 per cent, 26 per cent and 5 per cent in 1990-

1999 respectively. During the period under consideration, on average, prevalence of stunting and overweigh in OIC countries remained higher than those for world and developing countries whereas prevalence of underweight remained equal to that for developing countries and higher than that for world.

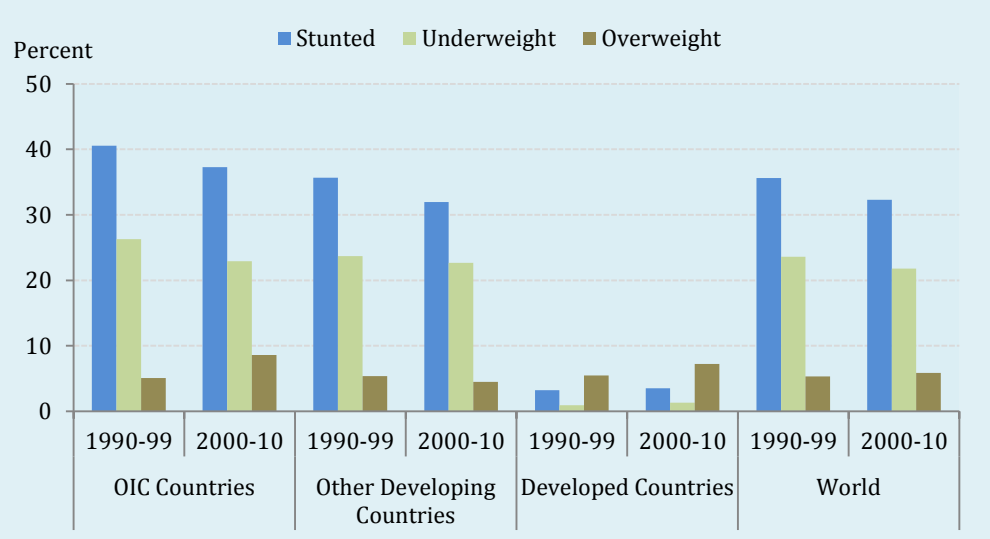



**Figure 2.36:** Children under 5 Stunted, Underweight and Overweight

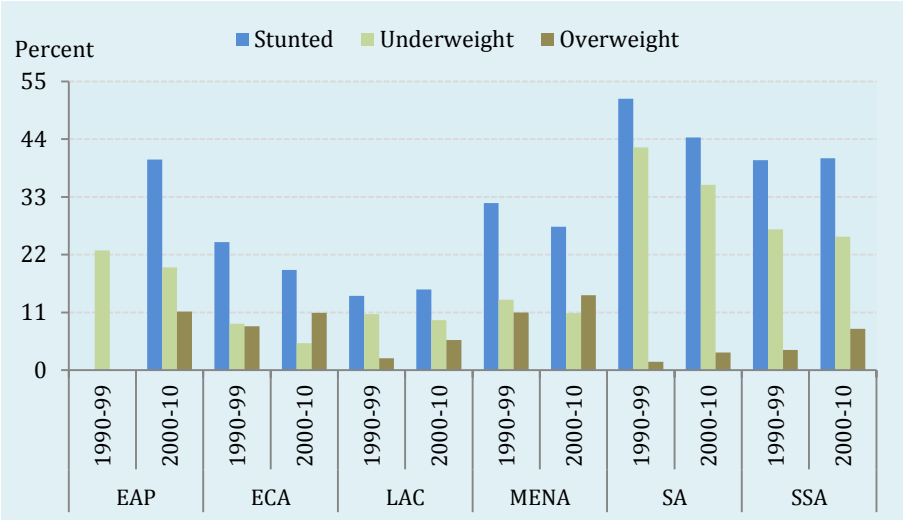
*Source:* Table A.6 in the Statistical Appendix

At the OIC regional level, as shown in Figure 2.37, stunting and underweight prevalence remained highest in SA (44 per cent and 35 per cent respectively) followed by SSA (40 per cent and 25 per cent) and EAP (40 per cent and 20 per cent). Whereas, prevalence of overweight children remained highest in MENA (14 per cent) followed by ECA (11 per cent) and EAP (11 per cent). During the period 1999-2010, prevalence of stunting has declined across the OIC regions except LAC where it increased slightly. The highest decline was recorded by SA (7 percentage points), ECA and MENA (5 percentage points each). Similarly, prevalence of underweight children also declined across the OIC regions. On average, member countries in SA region registered the highest decline of 7 percentage points followed by ECA (decline of 4 percentage points) and EAP (MENA) (decline of 3 percentage points). The average prevalence of stunted children in SA, SSA and EAP remained higher than that for OIC, world, developing and developed countries. On the contrary, prevalence of overweight children has increased across the OIC regions. The highest increase was registered by SSA and LAC (4 percentage points each) followed by MENA and ECA (3 percentage points each). The average prevalence of overweight children in MENA, ECA and EAP remained higher than that for OIC, world, developing and developed countries in 2010.

At the individual country level, prevalence of stunted and underweight children remained highest in member countries located in SA and SSA region. As shown in Figure 2.38 (left panel), six out of top-10 OIC countries are from SSA, three from SA and one from MENA. Among these countries, more than 50 per cent children under the age of five were stunted in Afghanistan (59 per cent), Yemen (58 per cent) and Niger (55 per cent); while 40 to 45 per cent of children were stunted in Chad (45 per cent), Burkina Faso (45 per cent), Bangladesh (43 per cent), Somalia (42 per cent) and Pakistan (42 per cent). Underweight prevalence also

remained highest in these countries and ranged from 30 per cent and 31 per cent in Djibouti and Pakistan respectively to 43 per cent and 41 per cent in Yemen and Bangladesh respectively.

**Figure 2.37:** Children under 5 Stunted, Underweight and Overweight in OIC Regions




*Source:* Table A.6 in the Statistical Appendix

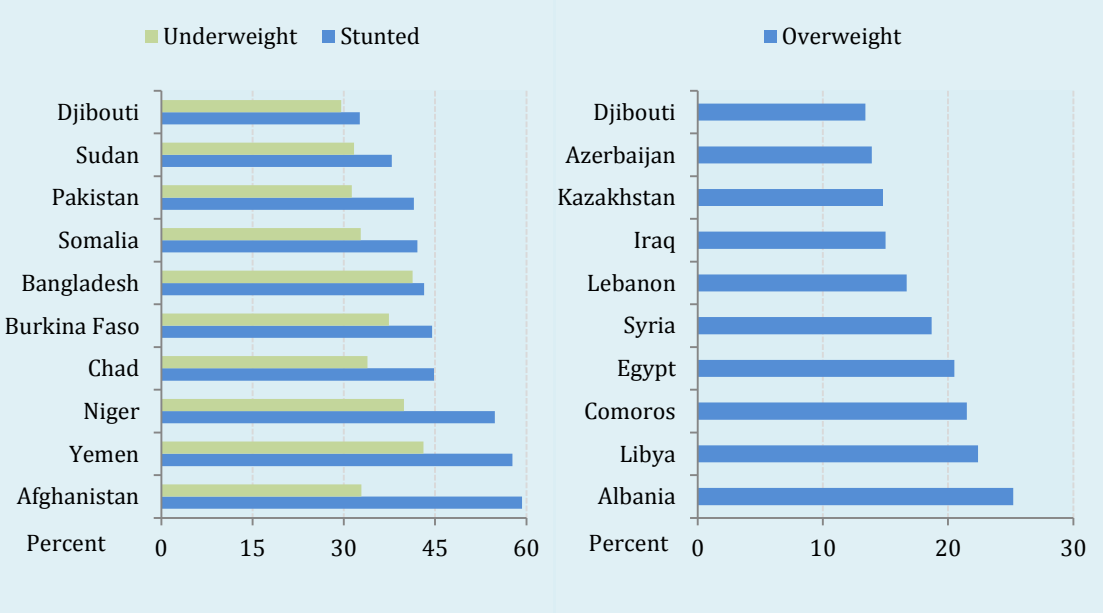
On the other hand, prevalence of overweight children remained highest in member countries located mainly in MENA and ECA region. As shown in Figure 2.38 (right panel), 5 out of top-10 OIC countries are from MENA, 3 from ECA and 2 from SSA. In these countries, prevalence of overweight children ranged from 13 per cent and 14 per cent in Djibouti and Azerbaijan respectively to 25 per cent and 22 per cent in Albania and Libya respectively.

In general, during the period 1990-2010, prevalence of stunting in children under the age of five has increased in 16 member countries (8 of them from SSA and 4 from MENA) ranging from 0.3 percentage points in Libya to 10.2 percentage points in Benin. Whereas, on the other hand, it has declined in 23 member countries (9 of them from SSA and 7 from MENA) ranging from 0.2 percentage points in Lebanon and Chad to 26 and 22 percentage points in Mauritania and Tunisia respectively.

In the same period, prevalence of underweight children has increased in eight member countries (four of them from MENA) ranging from 0.5 percentage points in Guyana to 14 percentage points in Djibouti. Whereas, on the other hand, it has declined in 31 member countries (15 of them from SSA, 7 from MENA and 4 from SA and ECA each) ranging from 0.2 percentage points in Jordon to 16 percentage points in Maldives (annex Table A.6).

During the period under consideration , prevalence of overweight children has increased in 22 member countries (ten of them from SSA, five from MENA and four from ECA) ranging from 0.3 percentage points in Mozambique to 16 percentage points both in Albania and Comoros. Whereas, on the other hand, it has declined in 7 member countries (2 of them from MENA, SA, and SSA each) ranging from 0.2 percentage points in Uganda to 17 percentage points in Tunisia.

**Figure 2.38:** Members with Highest Stunted, Underweight and Overweight U5 Children, 2000-2010




### 2.2.4 Adolescent Fertility

According to the WHO estimates, about 16 million girls aged between 15 to 19 years give birth every year. This accounts for about 11 per cent of total births worldwide. Majority of these teenage mothers (more than 90 per cent) live in developing countries (Factsheet No: 345 August 2010). Provided the fact that adolescents are more likely to experience complications during the pregnancy and delivery, mothers and babies both are therefore at a greater risk of mortality.

*Adolescent fertility remained high in OIC countries and 1 in 15 girls aged between 15 to 19 years gave birth in OIC countries compared to 1 in 14 girls in other developing countries.*

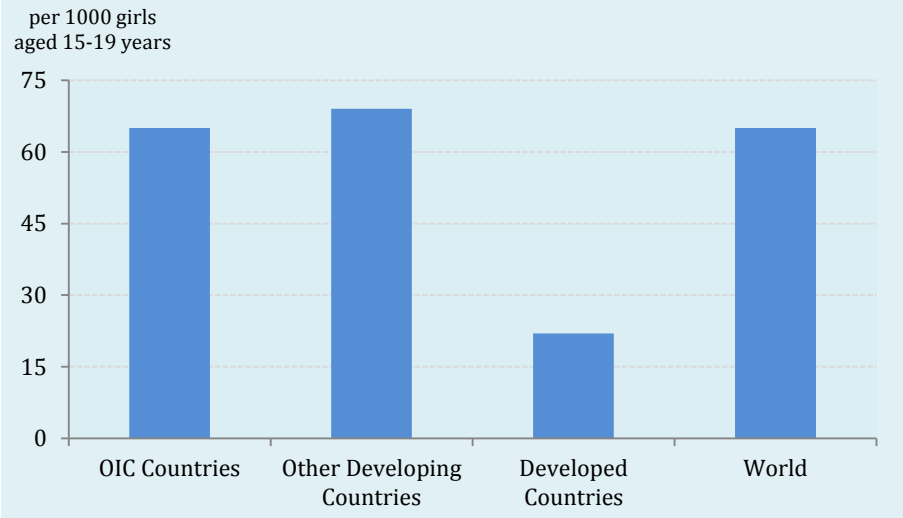
During 2005-2010, global adolescent fertility rate (AFR) was 65 births per 1000 girls aged 15–19 years. This means, on average, one in 15 girls aged between 15 to 19 years gave birth during this period. The adolescent fertility rates remained distinctively different in developed and developing countries. As shown in Figure 2.39, AFR in developed countries was just 22 births per 1000 girls aged 15–19 years compared to 69 in developing countries. This means that one in 46 girls aged between 15 to 19 years gave birth in developed countries compared to one in 14 in developing countries.

In 2005-2010, AFR in OIC member countries equalled the world average while it remained lower than the other developing countries. On the other hand, it was registered much higher than the developed countries average rate. As shown in Figure 2.39, AFR in OIC was 65 births per 1000 girls aged 15–19 years which means one in 15 girls aged between 15 to 19 years gave birth during 2005-2010. Among others, early age marriages especially in rural areas remained the leading cause of higher AFR both in OIC and developing countries vis-à-vis the developed countries.

**Figure 2.39:**
Adolescent Fertility Rate, 2005-2010

AFR remained significantly higher in OIC countries.

*Source:* Table A.7 in the Statistical Appendix

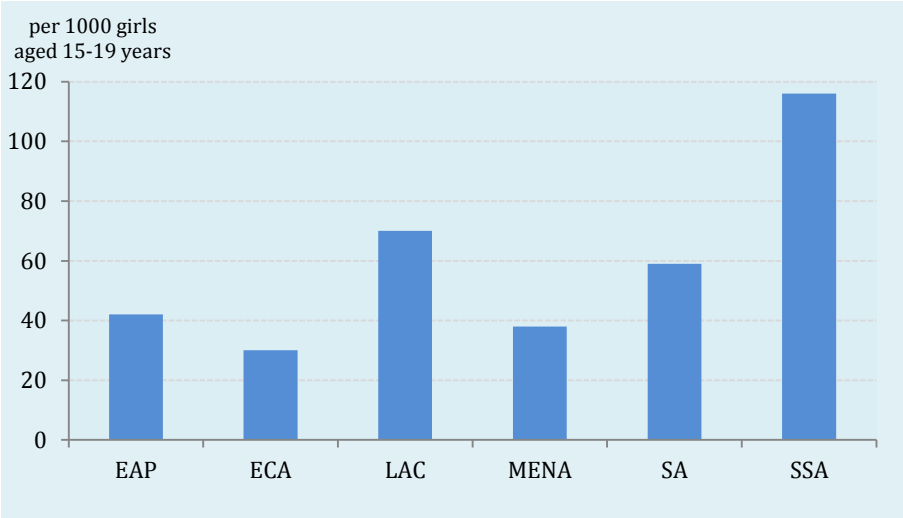



Significant disparities existed among the OIC regions as AFR ranged from a low of 30 births per 1000 girls aged 15–19 years in ECA to a high of 116 in SSA (Figure 2.40) during 2005-2010. This means that one in 33 girls aged between 15 to 19 years gave birth in ECA region compared to one in nine in SSA. Member countries in SA and LAC region recorded AFR of 59 and 70 births per 1000 girls aged 15–19 years respectively whereas it was 38 and 42 births per 1000 girls aged 15–19 years in MENA and EAP respectively. During 2005-2010, AFR in EAP, ECA, MENA and SA remained below the world, developing and OIC averages.

**Figure 2.40:**
Adolescent Fertility Rate in OIC Regions

AFR remained significantly higher in SSA, LAC and SA regions.

*Source:* Table A.7 in the Statistical Appendix




At the individual country level, AFR in OIC member countries ranges from a low of 3.2 births per 1000 aged 15-19 years in Libya to a high of 207 in Niger (Figure 2.41). Ten member countries from MENA region registered the lowest AFR, ranging from 15 to 3.2 births per 1000 girls aged 15-19 years. On the other hand, 15 member countries from SSA region registered AFR of over 100 births per 1000 girls aged 15-19 years. Out of these 15 member countries, 10 were among the top 20 countries with highest AFR in the world. In 2010, Niger and Mali were ranked 1st and 3rd with respect to AFR in the world followed by Chad (ranked 5th), Guinea (ranked 6th), Mozambique (ranked 8th) and Sierra Leone (ranked

10th). On the other hand, AFR remained less than 50 births per 1000 girls aged 15-19 years in 30 OIC member states. In half of these countries, AFR remained even less than 20 births per 1000 girls aged 15-19 years. In general, 32 member countries registered AFR lower than the OIC average of 65 births per 1000 girls aged 15-19 years. In 15 of these 32 countries, AFR remained lower than the developed averages of 22 per 1000 girls aged 15-19 years (see annex Table A.7).

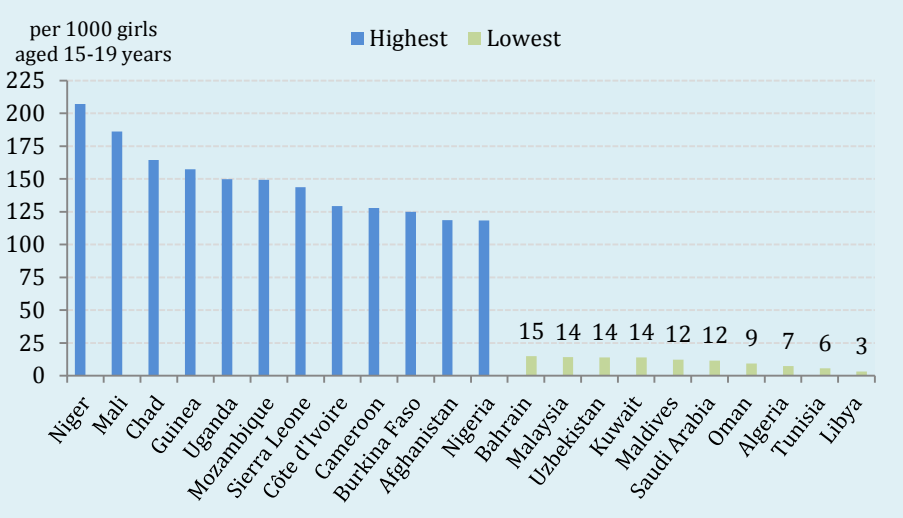



**Figure 2.41:** Members with Highest and Lowest Adolescent Fertility Rate, 2005-2010

*Source:* Table A.7 in the Statistical Appendix

## 2.3 General Public Health

### 2.3.1 Life Expectancy at Birth

Life expectancy at birth (LEB) is an important indicator on general health situation of people in a country and the quality of health care they are receiving. It is defined as the average number of years that a newborn is expected to live if health and living conditions at the time of birth remained the same. In general, life expectancy at birth in a country is determined by a variety of socio-economic factors like state of poverty and undernourishment, access to clean water and sanitation, availability of primary health care services and immunization coverage.

As shown in Figure 2.42, worldwide average life expectancy at birth rose from 63 years in 1990 to 68.5 years in 2011, a rise of over five years. There are still substantial differences in LEB between different parts of the world. Due to more efficient and effective health care system and better living standards, developed countries have quite higher LEB compared to the developing countries. During the period under consideration, average LEB in developed countries increased from 73 years in 1990 to 78 years in 2011 (a rise of 5 years), while for other developing countries it increased from 62 years in 1990 to 67 years in 2011 (a rise of 5 years). The difference in LEB between developed and other developing countries remained almost the same (about 11 years) during the period under consideration.

*Despite some improvement in life expectancy at birth, OIC countries are still lagging behind the world average by 3.5 years*

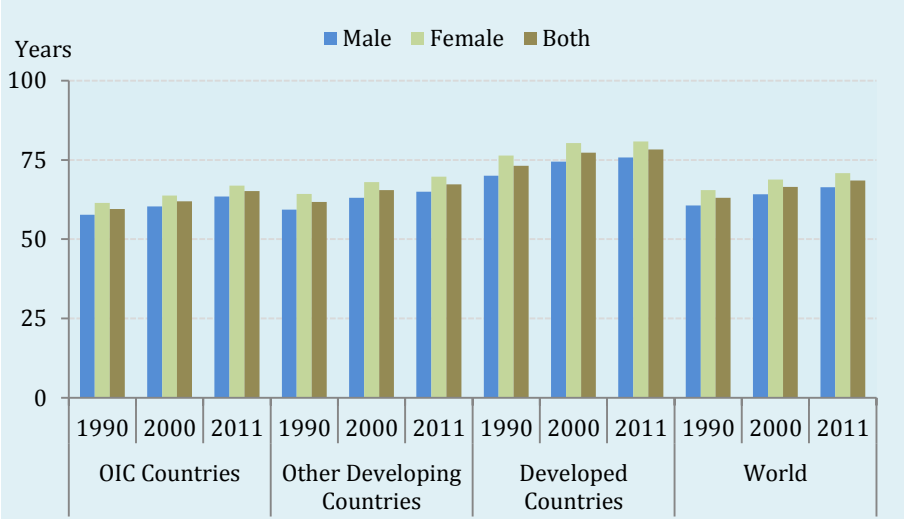
There are also significant differences in LEB between males and females that females generally live longer than males. Globally, average LEB rose to 66 years for males and 71

years for females in 2011, a rise of 5 years for males and 6 years for females since 1990 (Figure 2.42). The gender gap in LEB decreased slightly from 4.8 years to 4.4 years during 1990-2011. In developed countries, LEB rose to 76 years for males and 81 years for females, a rise of 6 years for males and 5 years for females since 1990. The gender gap in LEB for developed countries decreased from 6 years in 1990 to 5 years in 2011. On the other hand, in the other developing countries group, LEB increased to 65 years for males and 70 years for females that point out a rise of 6 years for males and 5.5 years for females since 1990. In other developing countries, gender gap in LEB decreased from 5 years in 1990 to 4.5 years in 2011.

OIC member countries also witnessed improvement in life expectancy at birth. As shown in Figure 2.42, average LEB rose from 60 years in 1990 to 65 years in 2011, a rise of five years. However, LEB for both sexes in member countries remained two years, five years and thirteen years less than other developing countries, world and developed countries, respectively. LEB trends also show gender based differences in OIC member countries. Average LEB in OIC countries rose to 63 years for males and 67 years for females in 2011, a rise of 5 years for both genders since 1990. In OIC member countries gender gap in LEB remained at 4 years during the period 1990-2011.

**Figure 2.42:** Life Expectancy at Birth

LEB remained lower in OIC countries.




*Source:* Table A.7 in the Statistical Appendix

Over the years, life expectancy at birth has been improved across the OIC regional groups. As shown in Figure 2.43, LEB in OIC regions varies considerably from a low of 52 and 55 years in SA and SSA, respectively, to a high of 74 and 73 years in EAP and MENA respectively. Among other regions, LEB was recorded at 70 years in ECA and LAC regions in 2011. During the period under consideration, member countries in SA region registered the highest gains in LEB (7 years) followed by LAC (6 years) and SSA (5.7 years). In 2011, LEB for both sexes remained higher than the OIC average in all OIC regions except SA and SSA. In 14 member countries from the SSA region, LEB is registered for less than 60 years on average.

Across the OIC regions, females continued to live longer than males. In 2011, the highest gender based difference in LEB was recorded in ECA region (females outliving males by 7 years) followed by LAC (females outliving males by 6 years), in EAP (females outliving males by 4 years), and MENA (females outliving males by 3 years). On the other side of the scale, smallest gender gap in LEB was recorded in SA, where LEB for females remained 1.2 years higher than that for males that is followed by the SSA region in where females live 2.5 years longer than males.

There are also considerable differences in LEB between males and females among the OIC regions. In 2011, LEB both for males and females was highest in ECA (67 and 74 years) and LAC (67 and 73 years). On the other hand, LEB both for males and females was just 51 and 53 years respectively in the SA region. Between 1990 and 2009, member countries in South Asia registered the highest gains in LEB both for males (7 years) and females (8 years).

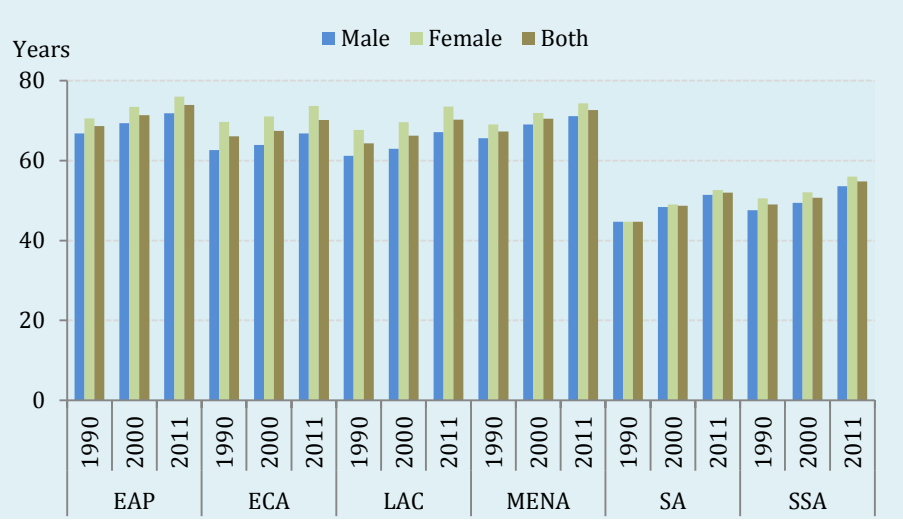


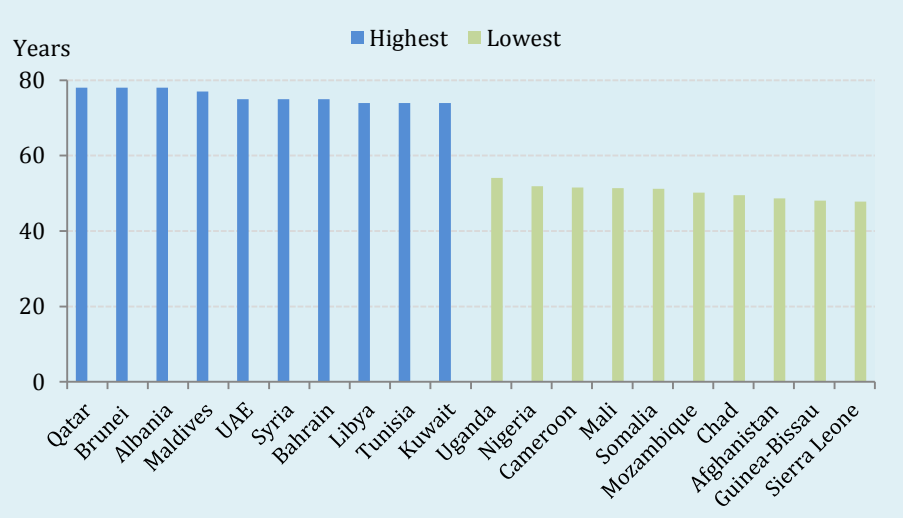

**Figure 2.43:** Life Expectancy at Birth in OIC Regions

LEB has been improved across the OIC regions.

*Source:* Table A.7 in the Statistical Appendix

At the individual country level, LEB in OIC member countries ranges from a low of 48 years both in Sierra Leone and Guinea-Bissau to a high of 78 years in Qatar and Brunei (Figure 2.44). Other OIC countries that have very low LEB levels are Afghanistan, Chad, Mozambique and Somalia. On the other hand, LEB remained more than 70 years in 22 member countries. In general, 33 member countries registered LEB higher than the OIC average of 65. In 30 OIC countries, LEB remained higher than the other developing countries average of 67 years whereas 28 of these OIC countries registered LEB higher than the world average of 69 years (see annex Table A.7).

**Figure 2.44:** Members with Highest Life Expectancy at Birth, 2011




*Source:* Table A.7 in the Statistical Appendix

### 2.3.2 Adult Mortality

Adult mortality rate (AMR) is defined as the probability of dying between the ages of 15 and 60 years per 1 000 population. It is considered as one of the most common measures to assess the health situation in a country.

*Adult mortality rate remained quite high in OIC countries compared to the world average*

Over the years, world has strived hard to decrease the mortality rate. As shown in Figure 2.45, worldwide average AMR has declined from 228 deaths per 1000 people in 1990 to 186 in 2011, corresponding to a decrease of 19 per cent. In other developing countries AMR has declined from 238 deaths per 1000 people in 1990 to 202 in 2011, corresponding to a decrease of 15 per cent. However, despite this decline, AMR in OIC countries and in other developing countries remained higher than the world average. Compared to the world and other developing countries rates, AMR remained very low in developed countries. On average, developed countries recorded just 74 deaths per 1000 population in 2011 compared to 115 in 1990, corresponding to an impressive decrease of 36 per cent.

The adult mortality situation has been improved in the OIC member countries and their AMR exhibited a down ward trend during the period 1990-2011. As shown in Figure 2.45, average AMR in OIC countries has declined from 273 deaths per 1000 people in 1990 to 217 in 2011, corresponding to a decrease of about 20 per cent. Nevertheless, AMR in OIC countries remained quite higher compared to the developed, other developing and world averages.

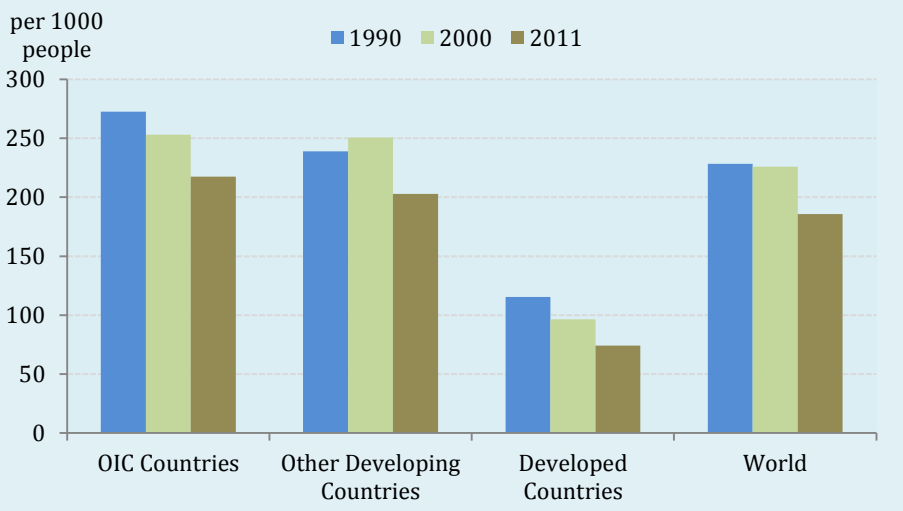



**Figure 2.45:** Adult Mortality Rate

AMR in OIC countries remained quite higher compared to other regions.

*Source:* Table A.8 in the Statistical Appendix

Compared with 1990, all OIC regions had lower adult mortality rates in 2011. In 2011, AMR ranged from a low of 131 and 135 deaths per 1000 people in MENA and EAP respectively to a high of 327 and 237 deaths per 1000 people in SSA and LAC respectively (Figure 2.46). Among other regions, the average AMR was 176 deaths per 1000 people in ECA and 166 deaths in SA. Between 1990 and 2011, OIC member countries in SA region witnessed the highest decrease in AMR (38 per cent) followed by MENA (29 per cent), EAP (28 per cent) and SSA (15 per cent). On the other hand, AMR in LAC and ECA regions witnessed relatively smaller decreases compared to other regions in their AMR with 9 per cent and 13 per cent reductions, respectively. In 2011, AMR for member countries in EAP, ECA, MENA and SA regions remained below the world, other developing countries and OIC averages (135, 176, 131 and 166 deaths per 1000 people, respectively).

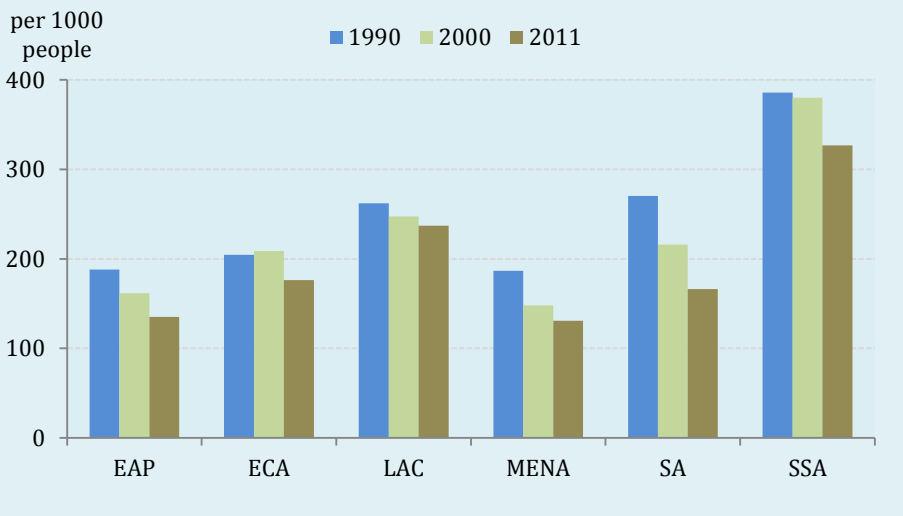



**Figure 2.46:** Adult Mortality Rate in OIC Regions

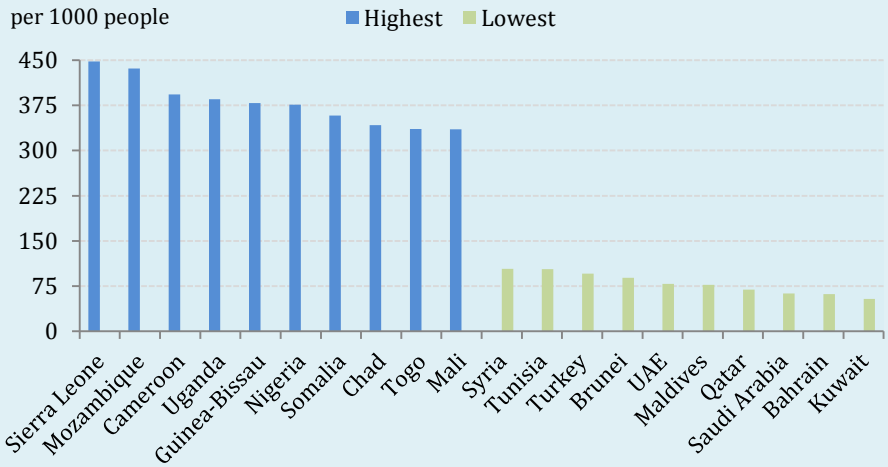
AMR remained significantly high in SSA region.

*Source:* Table A.8 in the Statistical Appendix

At the individual country level, AMR in OIC member countries ranges from a low of 54 deaths per 1000 people in Kuwait to a high of 448 in Sierra Leone (Figure 2.47). Seven member countries from MENA region registered the lowest AMR, ranging from 104 to 54 deaths per 1000 people. On the other hand, 10 member countries from SSA region registered

AMR higher than 335 deaths per 1000 people. Out of these 10 member countries, seven were among the top 20 countries with highest AMR in the world. In 2011, Sierra Leone was ranked 4th with respect to AMR in the world followed by Mozambique (ranked 7th), Cameroon (ranked 10th), Uganda (ranked 11th) and Guinea-Bissau (ranked 13th). On the other hand, AMR remained less than 150 deaths per 1000 people in 10 member countries. In general, 19 member countries registered AMR lower than the OIC average of 225 deaths. For 17 out of these 19 countries, AMR remained lower than the other developing countries average of 202 deaths (see annex Table A.8).

**Figure 2.47:** Members with Highest and Lowest Adult Mortality Rate, 2009




*Source:* Table A.8 in the Statistical Appendix

### 2.3.3 Prevalence of Tobacco Use

In 2011, as shown in Figure 2.48, prevalence of tobacco use among adults in the world averaged at 23 per cent, equalling to more than 1 billion tobacco users across the world. Gender wise, about 33 per cent of men and 11 per cent of women in the world use tobacco according to latest available data. Majority of the global tobacco users resides in developing countries which accounted for around 76 per cent of the world total in 2011. Prevalence of tobacco use among adults in other developing countries was recorded at 23 per cent whereas 34 per cent of men use tobacco compared to 12 per cent women. On the other hand, in developed countries share of total and women tobacco users remained comparatively high. In 2011, 27 per cent adults were using tobacco in developed countries whereas this share was 31 per cent for male adults and 23 per cent for the female adults.

*Prevalence of tobacco use among adults in OIC region remained below the other developing, developed and world averages*

In 2011, prevalence of tobacco use among adults in the OIC countries was 19 per cent with tobacco use being more common among men (32 per cent) compared to the women (5 per cent) (Figure 2.48). Prevalence of tobacco use among adults in OIC region remained below the developing, developed and world averages in 2011. A similar trend can be observed in case of male and female tobacco users. As a group, OIC member countries registered lowest prevalence of tobacco use among female adults whereas prevalence of tobacco use among male adults in OIC remained lower than the other developing countries and world averages in 2011. OIC member countries accounted for 24 per cent of the world and 32 per cent of the

developing countries total adult tobacco users. On the gender basis, OIC member countries accounted for 29 per cent of male and 11 per cent of female tobacco users in the world whereas their share in male and female tobacco users of developing countries was recorded at 35 per cent and 18 per cent respectively.

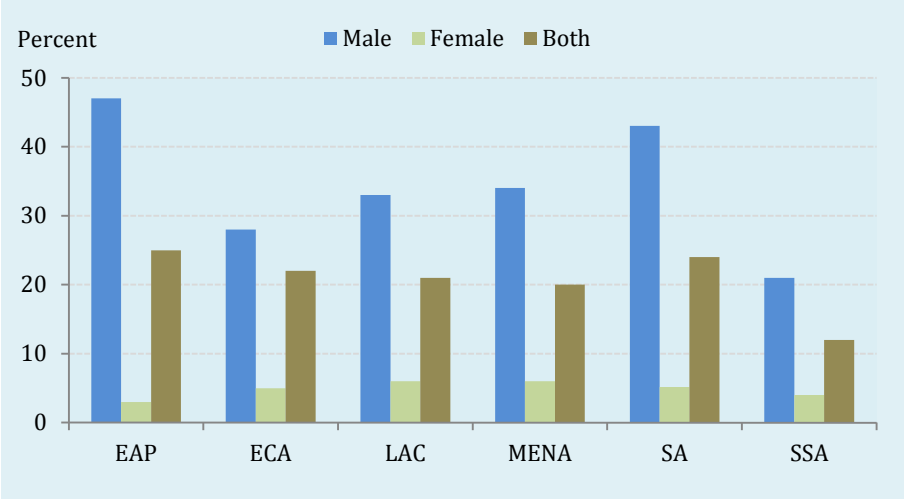



**Figure 2.48:** Prevalence of Tobacco Use among Adults, 2011

Share of adult tobacco users remained comparatively low in OIC countries.

*Source:* Table A.9 in the Statistical Appendix

As shown in Figure 2.49, prevalence of tobacco use varies significantly across the OIC regions. In 2011, the highest prevalence rate among adults was recorded in EAP region (25 per cent) whereas the lowest prevalence was recorded in SSA region (12 per cent). Among other regions, SA recorded tobacco use prevalence of 24 per cent followed by ECA (22 per cent), MENA (20 per cent) and LAC (21 per cent). Prevalence of tobacco remained higher than the OIC average in all regions except the SSA which recorded prevalence rate of 12 per cent.

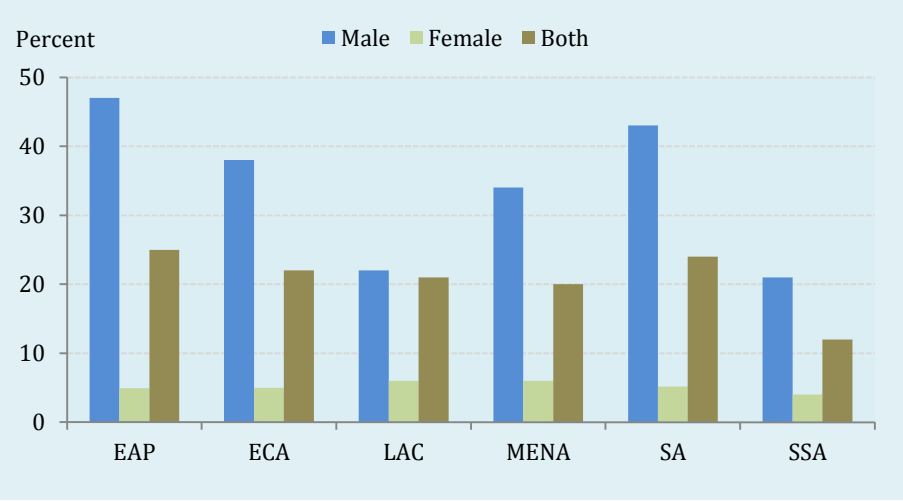
With a rate of 47 per cent, EAP region registered highest share of male tobacco users in OIC group whereas on the downside it was only 21 per cent in SSA region (Figure 2.49). In other regions, 43 per cent adult males use tobacco in SA is followed by 34 per cent in MENA, 33 per cent in LAC and 28 per cent in ECA region. The share of male tobacco users in EAP, LAC, MENA and SA regions remained higher than the OIC average whereas in EAP, ECA and SA region it was even higher than the developing, developed and world averages.

In case of female tobacco users, MENA and LAC region registered the highest prevalence (6 per cent both) whereas it was just 3 per cent in EAP, 4 per cent in SSA, and 5 per cent in ECA and SA region (Figure 2.49). The prevalence of tobacco use among women in LAC and MENA region remained higher than the OIC averages.

**Figure 2.49:** Prevalence of Tobacco Use among Adults in OIC Regions

Prevalence of tobacco use remained quite low in SSA and LAC regions.

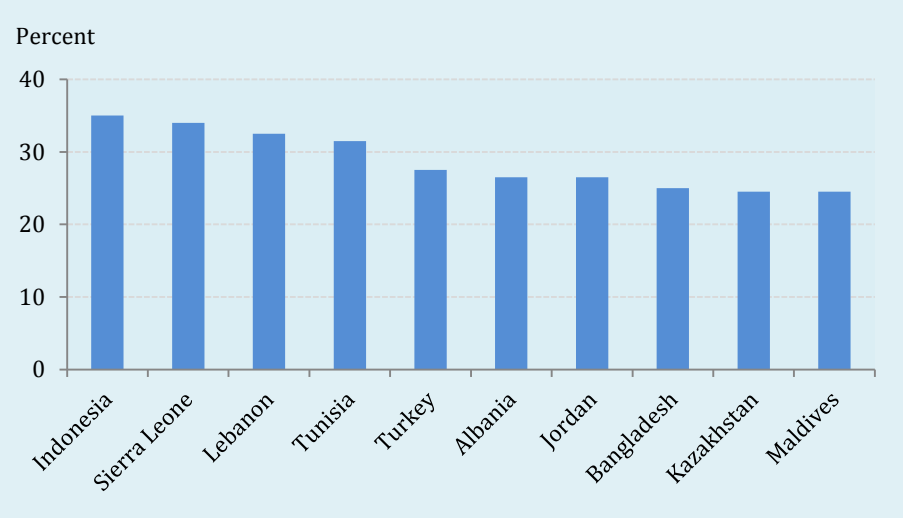
*Source:* Table A.9 in the Statistical Appendix




At the individual country level, tobacco use among adults in OIC region portrays a diverse picture. In 2011, as shown in Figure 2.50, Indonesia recorded the highest smoking prevalence among adults (35 per cent) in OIC region, closely followed by Sierra Leone (34 per cent), Lebanon (33 per cent) and Tunisia (32 per cent). Indonesia, Sierra Leone, Lebanon and Tunisia are the only OIC countries which have a smoking prevalence of above 30 per cent. At the global level, with respect to tobacco use among adults, Indonesia is ranked at 12th, Sierra Leone at 13th, Lebanon at 18th and Tunisia at 22th. On the bottom side, Niger and Nigeria recorded the lowest smoking prevalence among adults in OIC region (4.7 per cent) followed by Nigeria (6 per cent), Oman (6.7 per cent) and Togo (8 per cent) [see annex Table A.9].

**Figure 2.50:** Member Countries with Highest Prevalence of Tobacco Use among Adults, 2011

*Source:* Table A.9 in the Statistical Appendix




In 2011, as shown in Figure 2.51, the OIC country with the highest tobacco users in its male population was Indonesia with a prevalence of 67 per cent, followed by Tunisia (52 per cent), Albania (48 per cent), Bangladesh (48 per cent) and Sierra Leone (47 per cent). In these top five member countries more than half of male adults use tobacco. At the global level, with respect to men tobacco users, Indonesia is ranked at 1st, Tunisia at 6th, Albania at 11th,

Bangladesh at 12th and Sierra Leone at 13th. On the bottom side, Niger and Nigeria recorded the lowest smoking prevalence among male adults in OIC region (9 and 10 per cent respectively) followed by Oman (13 per cent) and Togo (14 per cent) [see annex Table A.9].

Although tobacco use among women remained comparatively very low in OIC region, 11 member countries registered prevalence of tobacco use among female adults higher than the OIC average (5 per cent). As shown in Figure 2.51, Lebanon recorded the highest smoking prevalence among female adults (22 per cent) in 2011, followed by Sierra Leone (20 per cent), Turkey (13 per cent) and Tunisia and Yemen (11 per cent each). At the global level, with respect to tobacco use among female adults, Lebanon is ranked at 27th, Sierra Leone at 33th, Turkey at 52st and Tunisia at 53th. On the bottom side, Senegal, Saudi Arabia, Oman, Niger and Egypt recorded the lowest tobacco use among female adults (0.5 per cent each) in OIC region, followed by Azerbaijan (0.9 per cent) and Malaysia (1.0 per cent) [see annex Table A.9]. The prevalence of tobacco use among women in Senegal, Saudi Arabia, Oman, Niger, Egypt and Azerbaijan remained lowest across the world.

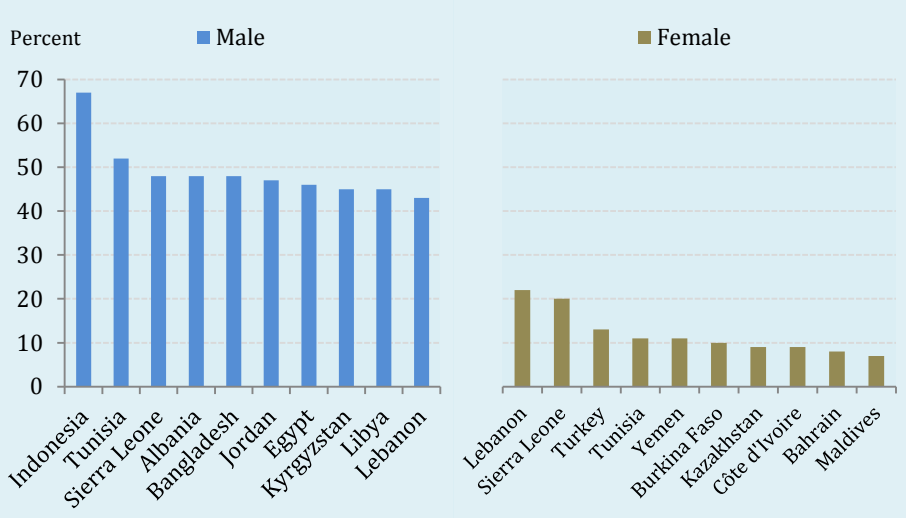



**Figure 2.51:** Member Countries with Highest Adult Male and Female Tobacco Users, 2011

*Source:* Table A.9 in the Statistical Appendix

*Tobacco Use and Burden of Deaths*

Today, it is a well-established fact that tobacco use is strongly associated with a number of illnesses notably cancer (particularly lung cancer), cardiovascular diseases and respiratory diseases. According to the WHO estimates, of the total deaths of 57 million in 2008, about 29 million (51 per cent of the total deaths) were caused by a few main tobacco use related diseases (Table 2.1). Among these 29 million deaths, 59 per cent deaths were caused by the cardiovascular diseases followed by cancer (26 per cent) and respiratory diseases (15 per cent). Worldwide, 80 per cent of total deaths caused by diseases associated with tobacco use occurred in developing countries. In the OIC member countries, around five million people died due to the tobacco use related diseases in 2008, corresponding to 16 per cent of the worldwide deaths.

*In OIC countries, around five million people die due to the tobacco use related diseases which corresponds to 16% of world total deaths*

**Table 2.1:** Deaths Caused by Diseases associated with Tobacco Use (Millions)

| | Cancers | Cardiovascular diseases | Respiratory diseases | Total deaths caused by diseases associated with Tobacco Use |
|---|---|---|---|---|
| **OIC Countries** | 1.0 | 3.2 | 0.6 | **4.7** |
| **Other Developing Countries** | 4.3 | 11.2 | 3.1 | **18.7** |
| **Developed Countries** | 2.2 | 3.0 | 0.5 | **5.7** |
| **World** | 7.6 | 17.3 | 4.2 | **29.1** |

*Source:* WHO, Estimated Deaths by Cause 2013.

Among the OIC regions, the share of deaths caused by tobacco use related diseases in total deaths remained significantly higher in ECA region where 70 per cent of total deaths were caused by tobacco use related diseases (Table 2.2). Among other regions, more than 50 per cent of the total deaths in 2008 were caused by the tobacco use related diseases in EAP and MENA region whereas this ratio was 48 per cent for the LAC, 36 per cent for the SA and only 19 per cent for the SSA region.

**Table 2.2:** Deaths Caused by Diseases associated with Tobacco Use (Millions)

| | Cancers | Cardiovascular diseases | Respiratory diseases | Total deaths caused by diseases associated with Tobacco Use |
|---|---|---|---|---|
| **EAP** | 0.2 | 0.6 | 0.1 | **0.9** |
| **ECA** | 0.1 | 0.5 | 0.1 | **0.7** |
| **LAC** | 0.0 | 0.0 | 0.0 | **0.0** |
| **MENA** | 0.2 | 0.7 | 0.1 | **1.0** |
| **SA** | 0.2 | 0.7 | 0.2 | **1.1** |
| **SSA** | 0.2 | 0.7 | 0.2 | **1.0** |

*Source:* WHO, Estimated Deaths by Cause 2013.

*Implementation of WHO Framework Convention on Tobacco Control (FCTC)*

*Currently, 53 OIC member countries are signatories of the WHO-FCTC*

The tobacco epidemic is preventable through prudent policy measures and interventions both at national and international levels. In this regard, there are many cost-effective strategies and public policies, like bans on advertising, promotion and sponsorship of tobacco products; tobacco tax and price increases; forbidding smoking in all public and workplaces; and requiring large, clear and visible graphic health messages on tobacco packaging etc. All of these measures are outlined in the WHO Framework Convention on Tobacco Control (FCTC) which was adopted by the World Health Assembly on 21 May 2003 and entered into force on 27 February 2005.

Over the years, OIC member countries strived hard and took various legislative and administrative initiatives to implement the measures prescribed by the WHO-FCTC. As of September 2013, 53 OIC member countries are signatories of the WHO-FCTC. 35 out of 41 member countries with data have comprehensive legislation to control tobacco use and 47 out of 56 members with data have a national tobacco control agency. This shows the commitment of member countries to control the tobacco epidemic and save their citizens from hazardous effects of tobacco use. In this section, based on the findings of latest WHO report on the global tobacco epidemic, an overview of current status of implementation of MPOWER measures in OIC member countries will be presented.

- Monitor tobacco use and prevention policies: Eight member countries namely: Egypt, Iran, Jordan, Kazakhstan, Malaysia, Oman, Togo, and Turkey conducted recent adult and youth surveys and maintained periodic data and were ranked among 54 highest achieving countries in the world. 14 member countries conducted both surveys but have not done so periodically, 26 conducted one of the surveys whereas Afghanistan, Burkina Faso, Cameroon, Gabon, Guinea-Bissau, Nigeria, and Turkmenistan conducted no survey.
- Protect people from tobacco smoke: 11 member countries have all public places completely smoke-free (or at least 90% of the population covered by complete subnational smoke-free legislation) and were ranked among 43 highest achieving countries in the world. 5 member countries have six to seven public spaces completely smoke-free whereas, 36 countries have two to five public spaces completely smoke-free.
- Offer help to quit tobacco use: Iran, Kuwait, Turkey, and United Arab Emirates were ranked among the 21 highest achieving countries with respect to national quit line, both nicotine replacement therapy (NRT) and some cost-covered cessation services. 19 countries have NRT and/or some cessation services (at least one of which is cost-covered), and 28 countries have NRT and/or some cessation services (neither cost-covered). On the bottom side, Comoros, Gambia, Mauritania, Sierra Leone, Somalia, and Sudan do not have any treatment and cessation services.
- Warn people about the dangers of tobacco: Seven member countries namely: Brunei, Djibouti, Egypt, Iran, Malaysia, Niger and Turkey have large warnings with all appropriate characteristics. 12 countries have medium warnings with all appropriate characteristics, 14 countries have medium warnings with missing some characteristics whereas, 24 countries have very small or no warnings. In case of mass media campaigns, only 7 member countries conducted anti-tobacco mass media campaign and were ranked among the 36 highest achieving countries in the world. 35 member countries conducted no mass media national campaign between January 2011 and June 2012 with duration of at least three weeks.

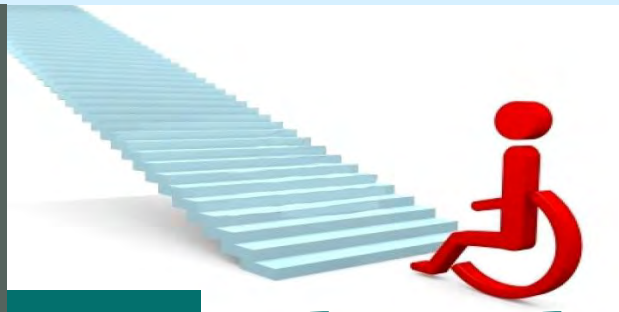
*Majority of OIC countries tried to implement the MPOWER measures prescribed by the WHO-FCTC*

- Enforce ban on advertising, promotion & sponsorship: 12 member countries namely: Albania, Bahrain, Chad, Djibouti, Guinea, Iran, Kuwait, Libya, Maldives, Niger, Togo, and Turkey enforced ban on all forms of direct and indirect advertising and were ranked among 24 highest achieving countries in the world. 28 countries enforced ban on national TV, radio and print media as well as on some but not all other forms of direct and/or indirect advertising, whereas, 15 countries either have complete absence of ban or ban dose not covers national TV, radio and print media.
- Raise taxes on tobacco products: Five member countries namely: Brunei Darussalam, Jordan, Palestine, Tunisia, and Turkey were ranked among 32 highest achieving countries in the world with more than 75 per cent of tax on tobacco products. In 19 countries 36-75 per cent of retail price is tax, and in 33 countries less than or equal to 35 per cent of retail price is tax. On the bottom side, lowest incidence of tax was recorded in Afghanistan (2%), Iraq (4%), Somalia (7%), Togo (12%) and Benin (13%).

## **Table 2.3:** Implementation of MPOWER Measures in OIC Countries

| **MPOER Measures** | | **Implementation Status** | | | |
|---|---|---|---|---|---|
| | | *Complete Policies* | *Moderate Policies* | *Minimal Policies* | *No Policy* |
| **Monitor Tobacco Use and Prevention Policies (N=55)** | | 8 | 14 | 26 | 7 |
| **Protect People from Tobacco Smoke (N=52)** | | 11 | 5 | 36 | 0 |
| **Offer Help to Quit Tobacco Use (N=57)** | | 4 | 19 | 28 | 6 |
| **Warn People about the Dangers of Tobacco** | Warning Labels (N=57) | 7 | 12 | 14 | 24 |
| | Mass Media (N=48) | 7 | 4 | 2 | 35 |
| **Enforce Ban on Advertising, Promotion and Sponsorship (N=55)** | | 12 | 28 | 0 | 15 |
| **Raise Taxes on Tobacco Products (N=57)** | | 5 | 19 | 33 | 0 |

*Source:* Adopted from WHO Report on the Global Tobacco Epidemic, 2013.



# 3 Obstacles to Progress in Health Sector in OIC Countries

## 3.1 Inadequate Infrastructure: Water Sources and Sanitation Facilities[4]

Adequate access to improved water sources and sanitation facilities is very crucial for human health, as lack of sanitation facilities, poor hygiene practices and contaminated drinking water lead to various acute and chronic diseases. According to the WHO estimates (WHO, 2008), about 3.6 million people die each year from water and sanitation related diseases and about half of the world total hospitalizations are also caused by the use of unsafe water and unhygienic sanitation practices.

### 3.1.1 Access to Improved Water Sources

Over the years, world has made remarkable progress to ensure people's access to safe and clean water sources. As shown in Figure 3.1, the proportion of the world total population with access to improved drinking water sources increased from 65 per cent in 1990 to 79 per cent in 2011, corresponding to an increase of 14 percentage points. Across the world access to clean water sources in rural areas remained quite low compared to the urban areas. In 2011, only 74 per cent of rural population was using improved water sources compared to 88

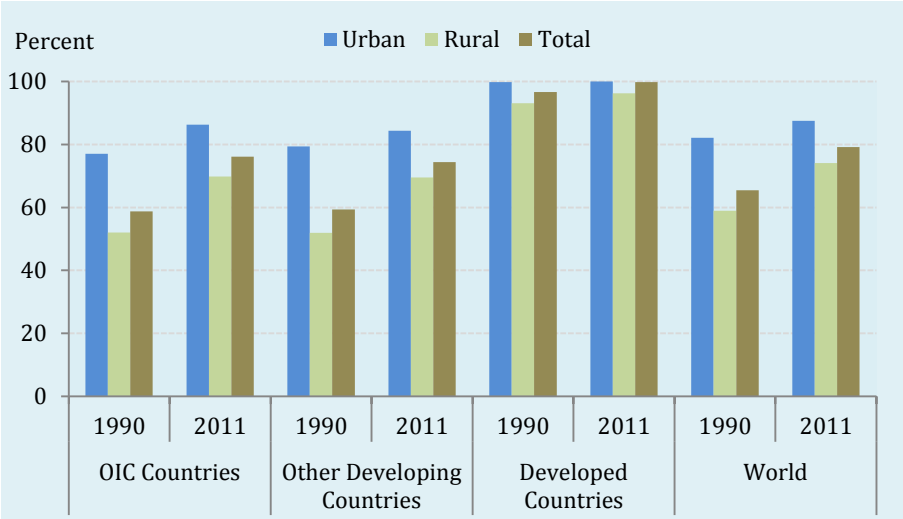
[4] According to the WHO / UNICEF Joint Monitoring Program (JMP) for Water Supply and Sanitation, sources that meet the definition of improved water include a household connection, borehole, protected dug well, protected spring, or rainwater collection. While facilities that meet the definition of improved sanitation include a flush or pour-flush toilet/latrine (connected to piped sewer system or septic tank or pit latrine), ventilated improved pit (VIP) latrine, pit latrine with slab and composting toilet.

per cent in urban areas. However, global efforts to scale up access in rural areas are paying off and the proportion of rural population using improved water sources has been increased by 15 percentage points since 1990.

**Figure 3.1:**
Population Using Improved Water Sources

Significant rural and urban disparities exist across the developing world.

*Source:* Table A.10 in the Statistical Appendix




In developed countries, virtually the entire population has access to improved water sources since the 1990s. And there are no considerable disparities between urban and rural areas in this regard. In developing countries, access to clean water has increased from 59 per cent in 1990 to 74 per cent in 2011, corresponding to an increase of 15 percentage points. However, significant disparities still exist between rural and urban areas. In 2011, only 69 per cent of the rural population was using improved water sources compared to 84 per cent in urban areas. This meant that, despite an impressive improvement of 15 percentage points on average since 1990, more than a quarter of rural population were still using unsafe water sources in developing countries.

*76% of the people have access to improved water sources in OIC countries compared to 79% in the world*

In OIC countries, the proportion of population with access to improved drinking water sources increased from 59 per cent in 1990 to 76 per cent in 2011, corresponding to an increase of 17 percentage points. In line with the global trend, access to clean water in rural areas remained quite lower compared to urban areas across the member countries. As shown in Figure 3.1, only 70 per cent of the rural population was using improved water sources compared to 86 per cent in urban areas. This means about 30 per cent of rural population in member countries is still using unsafe water sources for drinking, cooking, bathing and other domestic activities.

During the period under consideration, access to safe water has been improved across the OIC regional groups. As shown in Figure 3.2, there are significant disparities within OIC group and, for 2011, access to safe water sources ranges from a low of 61 per cent and 62 per cent in EAP and SSA, respectively, to a high of 93 per cent and 87 per cent in LAC and MENA, respectively. Meanwhile, improved water coverage reached 85 per cent in ECA and 67 per cent in SA region. Between 1990 and 2011, OIC member countries in ECA recorded the highest increase in coverage of improved water sources (30 percentage points) followed

by SSA (17 percentage points) and SA (15 percentage points). In 2011, access to improved water sources in LAC, ECA and MENA regions (93 per cent, 85 per cent and 87 per cent, respectively) remained above the OIC, developing and world averages. Meanwhile, share of population with access to improved water sources remained lower than the OIC average in EAP, SSA and SA regions.

Significant disparities exist in coverage of improved water resources between rural and urban areas across the OIC regions. In general, coverage rates remained higher in urban areas. Among the OIC regional groups, the highest urban and rural disparity in improved water coverage is recorded in SSA (27 percentage point difference) and ECA (16 percentage point difference). On the other hand, smallest urban and rural disparity in improved water coverage is observed in MENA (9 percentage point difference) and SA regions (9 percentage point difference).

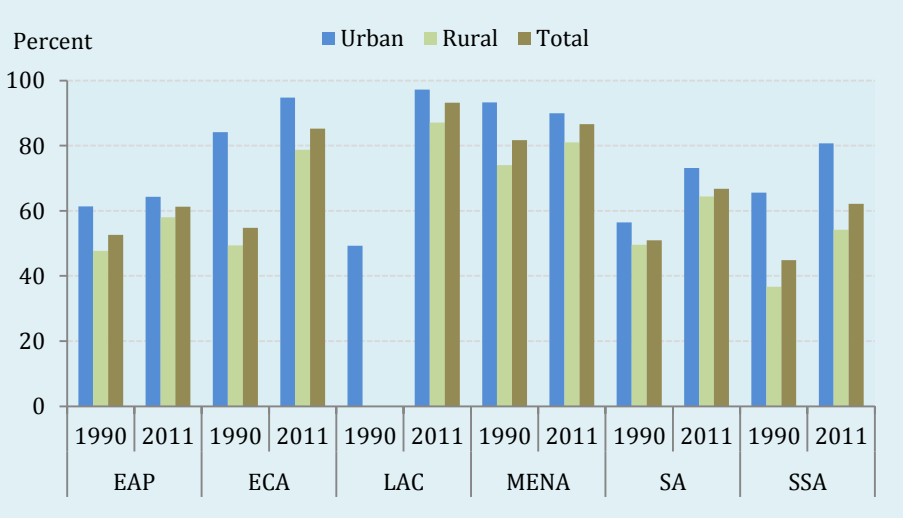



**Figure 3.2:** Population Using Improved Water Sources

Access to improved water sources remained quite high in urban areas across the OIC regions.

*Source:* Table A.10 in the Statistical Appendix

### 3.1.2 Access to Improved Sanitation

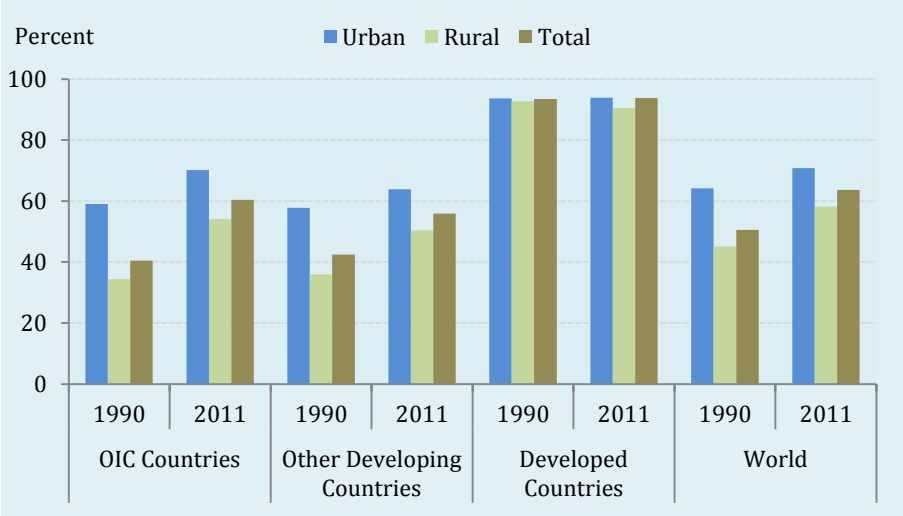

Despite some progress over the years, access to improved sanitation facilities remained very low across the globe. As shown in Figure 3.3, improved sanitation coverage increased from 50 per cent in 1990 to 64 per cent in 2011, corresponding to an increase of only 14 percentage points. Globally, there is significant difference in sanitation coverage between rural and urban areas. In 2011, 71 per cent of people living in urban areas were using improved sanitation facilities compared to only 58 per cent in rural areas. There is also significant difference in sanitation coverage between developed and developing countries. The sanitation coverage remained particularly low in other developing countries where, despite an increase of 13 percentage points since 1990, still only 56 per cent of the population uses improved sanitation; while in developed countries more than 93 per cent of total population is using improved sanitation facilities since 1990. In addition, while there's virtually no disparity between urban and rural sanitation coverage in developed countries, urban sanitation coverage (58 per cent) remained quite higher than the rural coverage (35 per cent) in other developing countries.

In OIC member countries coverage of improved sanitation facilities increased from 40 per cent in 1990 to 60 per cent in 2011, corresponding to an increase of 20 percentage points. The vast majority of those without access to improved sanitation are living in the rural areas. As shown in Figure 3.3, in 2011, only 54 per cent of people living in rural areas were using improved sanitation facilities in OIC member countries compared to 70 per cent in urban areas. During the period under consideration, sanitation coverage increased both in urban areas (21 percentage points) and in rural areas (10 percentage points) of the member countries.

**Figure 3.3:**
Population Using Improved Sanitation Facilities

Access to improved sanitation remained low in rural areas across the developing world.

*Source:* Table A.10 in the Statistical Appendix




*In OIC countries, access to improved sanitation facilities remained slightly lower than the world average*

Access to improved sanitation facilities has been improved across the OIC regions. As shown in Figure 3.4, there are significant disparities within OIC group and, for 2011, improved sanitation coverage ranges from a low of 25 per cent and 46 per cent in SSA and SA regions, respectively, to a high of 94 per cent and 86 per cent in ECA and MENA, respectively. Between 1990 and 2011, OIC member countries in ECA region witnessed the highest increase in access to improved water sources (39 percentage points) followed by MENA (18 percentage points) and SA (19 percentage points). In 2011, sanitation coverage in ECA, MENA, and LAC regions remained above the world, developing countries and OIC averages.

Among the OIC regions, there are also disparities in rural and urban coverage of improved sanitation facilities. The largest disparity between urban and rural coverage is recorded in SSA region (22 percentage point difference), followed by MENA (15 percentage point difference), LAC (14 percentage point difference) and SA (12 percentage point difference). On the other hand, urban and rural sanitation disparity remained smallest in ECA (4 percentage point difference) and EAP regions (11 percentage point difference).

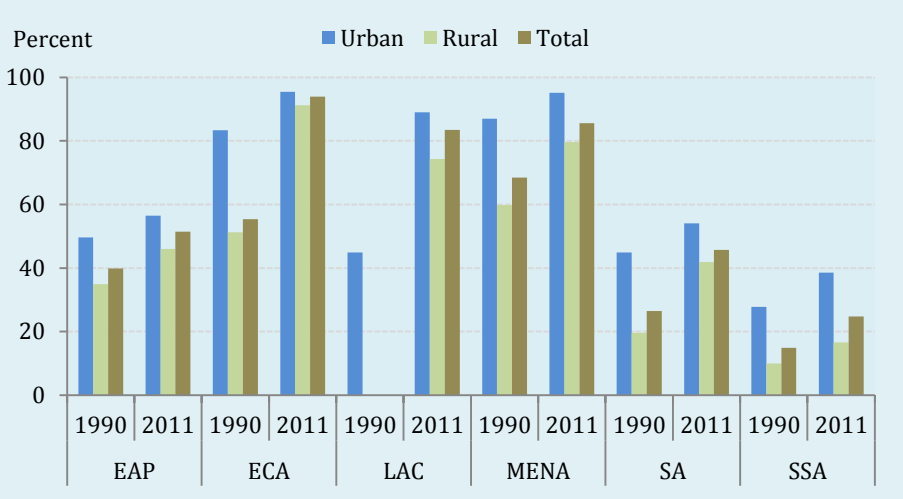



**Figure 3.4:** Population Using Improved Sanitation Facilities

Access to improved sanitation remained comparatively low in SSA and SA regions.

*Source:* Table A.10 in the Statistical Appendix

## 3.2 Inadequate Public/Private Expenditure on Health

### 3.2.1 Total Expenditure on Health[5]

The latest estimates show that the world spent a total of US$ 5181 billion on health care which represented 7.6 per cent of the world's total GDP (in current US$ terms) in 2011 (Figure 3.5). However, distribution of health spending remained highly unequal across the globe. In general, the bulk of health spending remained concentrated in developed countries which accounted for 72 per cent of it. In 2011, developed countries spent US$ 3706 billion on health which represented on average 8.7 per cent of their GDP. On the other hand, other developing countries spent only US$ 1196 billion on health care which represented on average only 6.1 per cent of their GDP. During 2000-2011, health spending as per cent of GDP has increased by 0.5 percentage points for the other developing countries, and decreased by 1.7 percentage points for the developed countries and across the world.

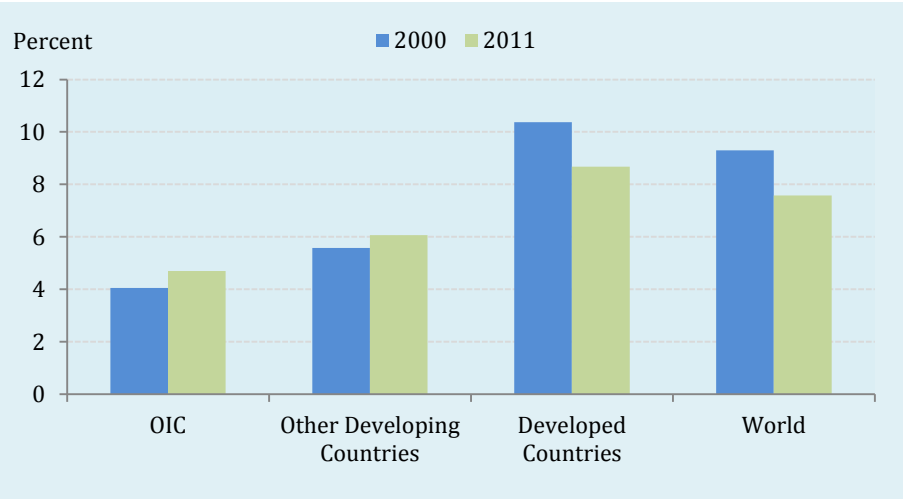



**Figure 3.5:** Total Health Expenditure (% of GDP)

OIC countries allocated only 4.7 per cent of their GDP for health.

*Source:* Table A.11 in the Statistical Appendix

[5] Total expenditure on health is the sum of public and private expenditure on health

*Situation in OIC countries is not very promising as, on average, they allocated less share of GDP for health care compared to the world average*

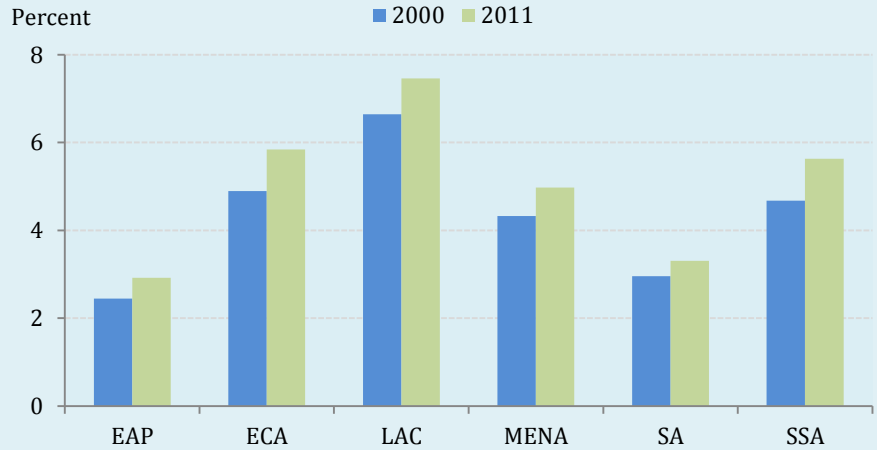
Health spending remained comparatively quite low in OIC member countries and they accounted for only 4.7 and 23 per cent of the world and developing countries total health spending, respectively. In 2011, OIC member countries spent US$ 279.5 billion on health which represented on average 4.7 per cent of their GDP. The situation in member countries is not very promising and they allocated less share of GDP for health care compared to the world, developed and other developing countries shares.

During the period 2000-2011, the share of health expenditures in GDP has been improved across the OIC regions. In 2011, as shown in Figure 3.6, LAC region dedicated 7.5 per cent of GDP for the health sector followed by ECA (5.8 per cent) and SSA (5.6 per cent). As for other regions, this ratio was 5.0 per cent in MENA, 3.3 per cent in SA and 2.9 per cent in EAP. The share of GDP devoted for health expenditures in LAC, ECA, SSA and MENA remained higher than the OIC average in 2011.

**Figure 3.6:** Total Health Expenditures as % of GDP

LAC, ECA and SSA region allocated comparatively higher share of GDP for health.

*Source:* Table A.11 in the Statistical Appendix




At the individual country level, in 2011, the ratio of health expenditures to GDP ranged from 18.8 per cent in Sierra Leone to only 7.0 per cent in Chad. The list of the OIC top ten health spenders in 2011 includes (in descending order) Sierra Leone, Afghanistan, Uganda, Maldives, Jordan, Sudan, Iraq, Togo, Djibouti, Cote d'Ivoire and Chad (Figure 3.7). It is interesting to highlight that all these countries except Maldives, Jordan, Iraq and Cote d'Ivoire are among OIC-LDCs. The higher share of health spending to GDP in these countries could be mainly attributed to the large amount of foreign aid they receive for the health sector. In 2011, the ratio of health expenditures to GDP was higher than OIC average (4.7 per cent) in 35 member countries. In 19 of these 35 countries, the ratio of health expenditures to GDP remained even higher than the other developing countries average of 6.1 per cent.

During 2000-2011, share of health expenditures in GDP increased in 37 OIC countries, ranging from 0.1 percentage point increase in United Arab Emirates to 6.9 percentage points in Iraq. On the other side of the scale, share of health expenditures in GDP decreased in 18 member countries, ranging from 0.1 percentage points decrease in Bahrain to 4.4 percentage points decrease in Lebanon (see Annex Table A.11).

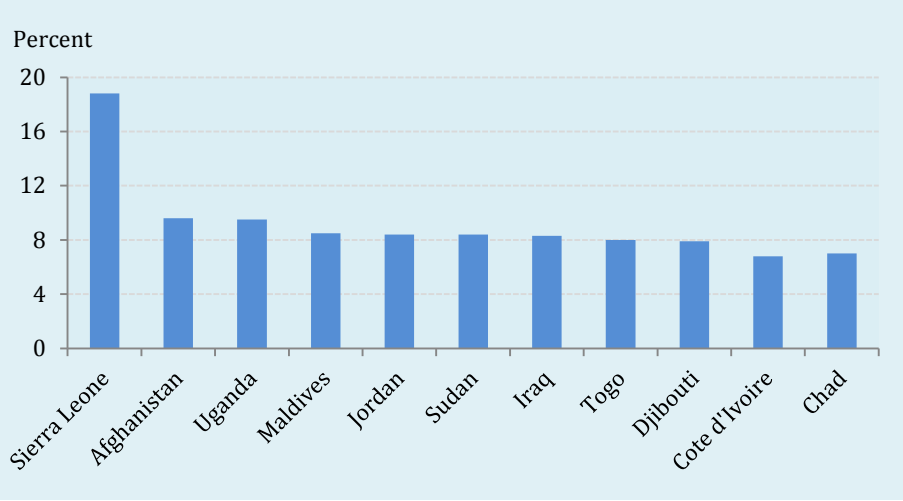



**Figure 3.7:** Top 10 OIC Countries by Total Expenditures on Health as % of GDP, 2011

*Source:* Table A.11 in the Statistical Appendix

### 3.2.2 Composition of Total Health Expenditures

Total health expenditure comprises both the public and private sources for health care financing. Public financing for health care mainly includes funds from government budget and social security schemes whereas private financing includes mainly private health insurance and out-of-pocket payments. Worldwide, public sector is the main source of health financing. However, in general, public health spending remained quite higher in advanced and high income countries compared to the developing and low income countries, respectively.

As indicated in Figure 3.8, on average, public sector accounted for 61 per cent of global health spending in 2011. The public share of health spending remained quite higher in developed countries compared to other developing countries. In 2011, about 65 per cent of total health spending in developed countries was financed by the public sector whereas this ratio was only 50 per cent in other developing countries. Similar to the global trends, public share of health spending was 56 per cent in OIC member countries in 2011. Compared to world and developed countries averages, public sector contribution in health spending remained low in other developing and OIC countries.

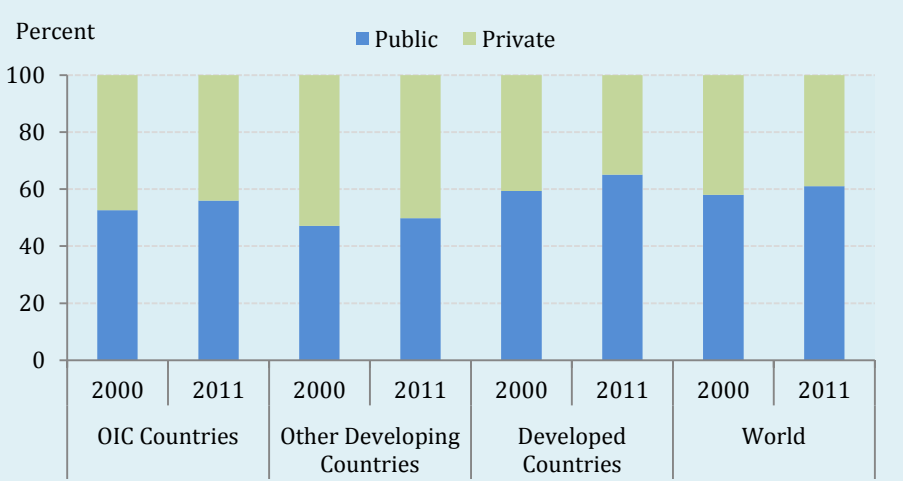


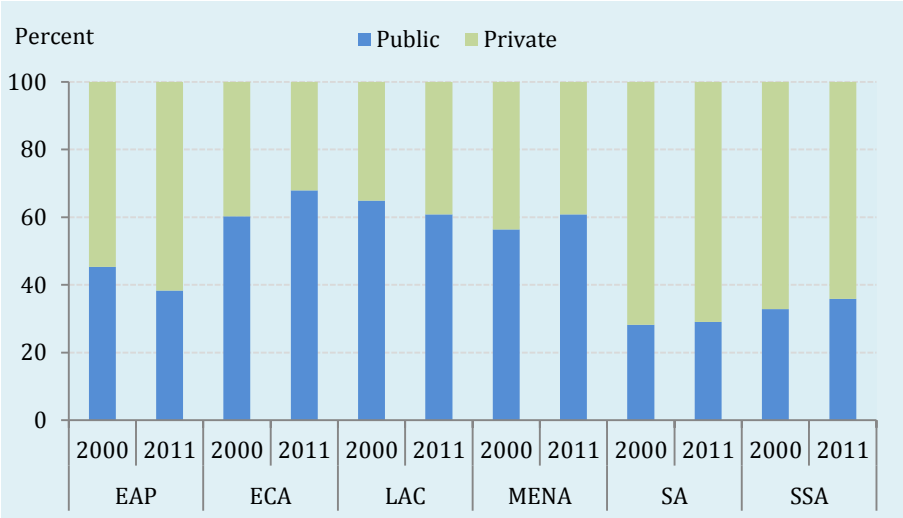

**Figure 3.8:** Public and Private Share in Total Health Expenditures

Compared to other developing countries, public share in health spending remained high in OIC.

*Source:* Table A.11 in the Statistical Appendix

The composition of total health spending differs considerably across the OIC regions (Figure 3.9). On average, public share of health spending remained dominant in ECA (68 per cent), LAC (61 per cent) and MENA (61 per cent) regions. On the contrary, private share of health spending remained dominant in SA (67 per cent), SSA (64 per cent) and EAP (62 per cent) regions. In ECA and LAC regions, public share of health spending remained higher than the world, developed, developing and OIC countries averages; whereas it was higher than the developing countries and OIC averages in MENA region.

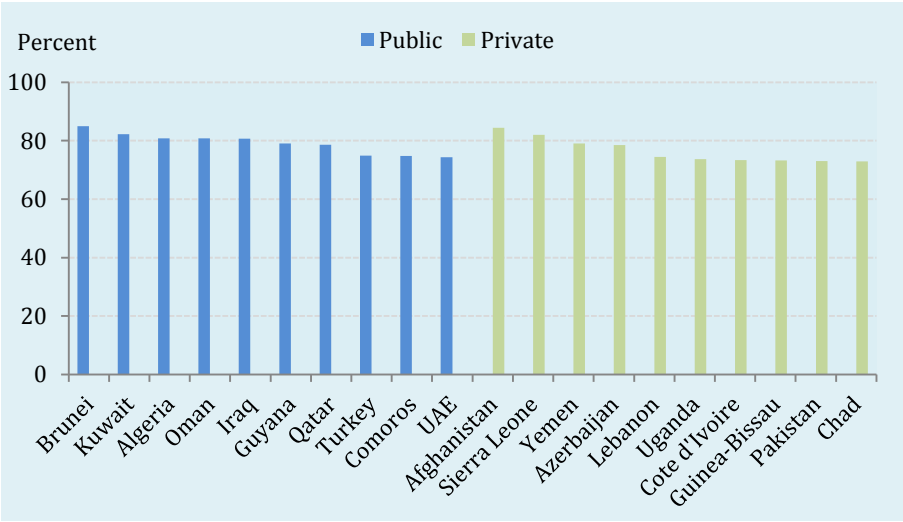
**Figure 3.9:** Public and Private Share in Total Health Expenditures in OIC Regions




*Source:* Table A.11 in the Statistical Appendix

At the individual country level, in 2011, the share of total health expenditures financed by the public sector ranged from 85 per cent in Brunei to only 15.6 per cent in Afghanistan. On the other hand, the share of total health expenditures financed by the private sector ranged from 84.4 per cent in Afghanistan to only 15 per cent in Brunei. In 2011, more than 50 per cent of total health expenditures were financed by the public sector in 29 member countries whereas private sector remained the major source of total health expenditures in 26 member countries (see Annex Table A.11).

**Figure 3.10:** OIC Members with Highest Public and Private Share in Total Health Expenditures




*Source:* Table A.11 in the Statistical Appendix

During 2000-2011, the share of public sector in total health expenditures increased in 37 member countries, ranging from 0.2 percentage point increase in Tunisia to 52 percentage points increase in Iraq. On the other side of the scale, the share of public sector in total health expenditures decreased in 17 member countries, ranging from 0.5 percentage points decrease in Uganda to 32.9 percentage points decrease in Yemen (see Annex Table A.11).

### 3.2.3 Government Health Expenditures

The ratio of government health expenditures to the total government expenditures measures the relative importance of the health sector on the national development agenda as well as the extent of government financial support for it.

As shown in Figure 3.11, worldwide, governments' spending on health sector accounted for about 15.8 per cent of total government expenditures in 2011 and it was 1.2 percentage points higher than the 2000 level (14.6 per cent). In developed countries, budgetary allocations to health sector were recorded at 17.7 per cent in 2011, corresponding to an increase of 2 percentage points since 2000. On the other hand, in other developing countries, share of government health spending in total government expenditures slightly improved and witnessed an increase of 1.3 percentage points from 10.1 per cent in 2000 to 11.4 per cent in 2011. In OIC member countries, governments' health spending increased from 7.7 per cent of total government expenditures in 2000 to 8.1 per cent in 2011, corresponding to an increase of 0.4 percentage point. This shows that, on average, governments in OIC member countries spent less on health sector compared to the world, developed and other-developing countries.

*On average, governments in OIC countries spend less on health sector compared to the world spending*

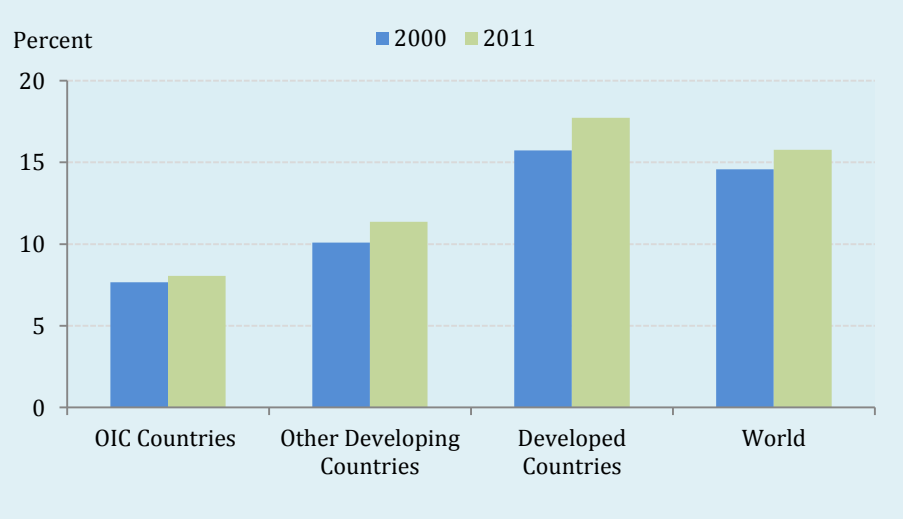


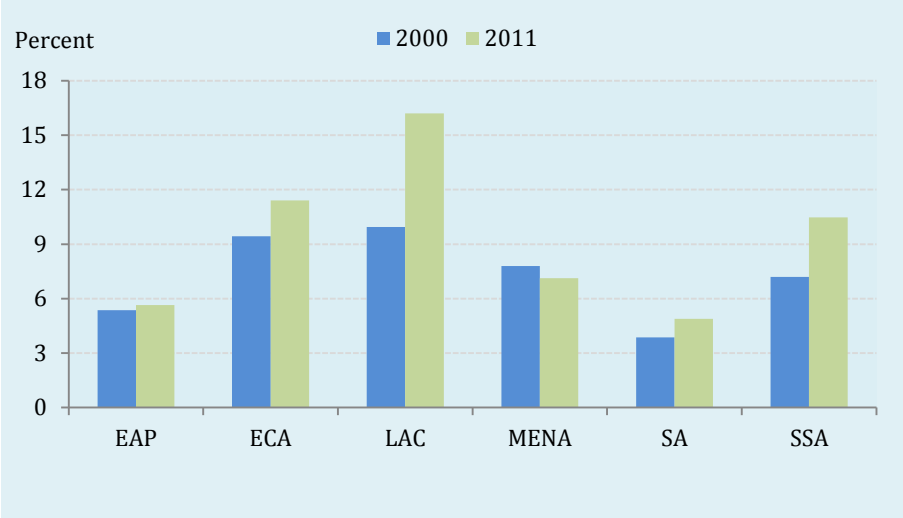

**Figure 3.11:** Government Health Expenditures (% of Total Government Expenditures)

*Source:* Table A.11 in the Statistical Appendix

During the period under consideration, the share of health sector in total government expenditures has been improved across the OIC regions except MENA. With significant disparities, as shown in Figure 3.12, budgetary allocations to health sector in OIC regions ranged from a low of 4.9 per cent and 5.6 per cent in SA and EAP, respectively, to a high of 16.2 per cent and 11.4 per cent in LAC and ECA, respectively. This ratio was 10.5 per cent in SSA region and 7.1 per cent in MENA. During the period under consideration, LAC

witnessed the highest increase of 6.3 percentage points followed by SSA (3.3 percentage points) and ECA (2.0 percentage points). On average, governments in LAC region allocated more resources to health compared to the OIC and other-developing countries average allocations in 2011.

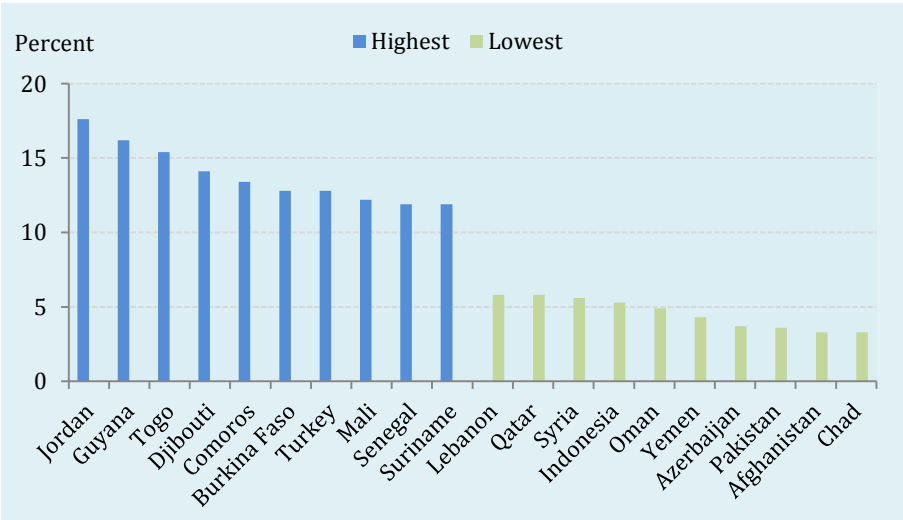
**Figure 3.12:** Government Health Expenditures in OIC Regions (% of Total Government Expenditures)




*Source:* Table A.11 in the Statistical Appendix

At the individual country level, 22 member countries allocated more than 10 per cent of their total expenditures for the health sector in 2011. Out of these 22 countries, Jordan and Guyana remained at the top with the share of 17.6 per cent and 16.2 per cent, respectively (Figure 3.13). Among others, Togo allocated 15.4 per cent of its total government expenditures for the health sector, followed by Djibouti (14.1 per cent), Comoros (13.4 per cent), Burkina Faso (12.8 per cent), Turkey (12.8 per cent), Mali (12.2 per cent), Senegal (11.9 per cent) and Suriname (11.9 per cent). On the opposite side of the scale, 6 member countries allocated less than 5 per cent of their total resources for the health sector in 2011 (Figure 3.13). The situation remained worse in Chad, Afghanistan, Pakistan and Azerbaijan where share of health sector in total government expenditures was recorded at only 3.3 per cent, 3.4 per cent, 3.6 per cent and 3.7 per cent, respectively.

**Figure 3.13:** Member Countries with Highest and Lowest Government Health Expenditures, 2011




*Source:* Table A.11 in the Statistical Appendix

### 3.2.4 Major Sources of Health Expenditures

Health financing is a critical component of health systems. It is mainly related with generation, allocation and use of financial resources to provide health care services to all people at a reasonable and affordable cost. Globally health care is financed by a mixture of tax-based financing, social health insurance, private health insurance, out-of-pocket health spending and external contributions (aid and donations, etc.). The relative share of these sources in total health expenditures has many implications for access, equity and financial sustainability of health care services in a country (WB, 2006).There is global evidence that to achieve the goal of universal health coverage it is necessary to generate a significant amount of financial resources for health through prepaid and pooled contributions like tax-based financing, social health insurance and private health insurance; whereas the share of direct out-of-pocket spending on health needs to be reduced (WHO, 2005).

This section discusses the major source of health financing and their relative contribution in total health expenditures of developed, developing and OIC countries.

In a ***tax-based financing*** system government revenues are predominantly used to finance health care spending. Usually, individuals contribute to the provision of health services through taxes on incomes, purchases, property, capital gains, and a variety of other items and activities. It is widespread across the globe and provides a significant share of health expenditures in almost every country (WHO, 2009).

As shown in Table 4, about 35.5 per cent of world total health expenditures were financed by government revenues in 2011. On average, share of government revenue in health expenditures remained quite different across the world and there were significant disparities between developed and developing groups in 2011. In developed countries, 40 per cent of total health expenditures were derived from government while this share was 26.5 per cent in other-developing countries. Governments in OIC region also continued to finance 15.2 per cent of total health expenditures in 2011. Between 2000 and 2011, the share of tax-based financing in total health expenditures witnessed an increasing trend at global and developed countries level; whereas it was exactly the opposite in case of other-developing and OIC countries where the share of total health expenditures financed by government has witnessed a declining trend.

*Taxes and social security schemes accounted for 40.6% of total health expenditures in OIC countries compared to 53.6% in the world*

***Social security*** or social health insurance is recognized as one of the most important methods to achieve universal health coverage. In this category, contributions from workers, the self-employed, enterprises and government are pooled into a single or multiple funds on a compulsory basis. Social security is most widely used in developed countries and it is second major source of health care financing in these countries (Doetinchem, O., Guy C., David, E., 2009).

As shown in Table 4, over a quarter of world total health expenditures (26.4 per cent) was financed by social security schemes in 2011. These schemes accounted for 28.9 per cent of total expenditures on health in developed countries whereas 22.0 per cent in other-

developing countries. In OIC member countries social security coverage remained comparatively lower than the other groups and only 11.3 per cent of total health expenditures were financed by these schemes in 2011.

The contribution of ***external resources*** to total health expenditures remained very low across the world. As shown in Table 4, only 0.3 per cent of world total health expenditures were financed by external resources in 2011. Meanwhile, this category remained almost absent in developed countries whereas in other developing countries it accounted for 0.8 per cent of total health expenditures. In OIC member countries, external resources contributed 1.9 per cent of total health expenditures in 2011. Compared to 2000, share of external resources in total health expenditures remained unchanged in OIC countries, other developing countries and developed countries whereas it increased at world level.

**Table 3.1:** Major Sources of Total Health Expenditures (%)

| | Tax | | Social Security | | External Resources | | Private Insurance | | Out-of-pocket | | Others | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2011 | 2000 | 2011 | 2000 | 2011 | 2000 | 2011 | 2000 | 2011 | 2000 | 2011 |
| OIC Countries | 26.1 | 15.2 | 11.4 | 11.3 | 1.9 | 1.9 | 3.4 | 3.0 | 39.5 | 36.5 | 17.7 | 32.1 |
| Other Developing | 27.1 | 26.5 | 20.2 | 22.0 | 0.8 | 0.8 | 8.0 | 8.6 | 42.4 | 37.4 | 1.5 | 0.0 |
| Developed Countries | 25.5 | 40.0 | 28.8 | 28.9 | 0.0 | 0.0 | 20.2 | 15.1 | 15.2 | 15.2 | 10.2 | 0.8 |
| World | 25.7 | 35.5 | 27.6 | 26.4 | 0.1 | 0.3 | 18.7 | 12.9 | 18.4 | 21.4 | 9.6 | 3.4 |

*Source:* Table A.12 in the Statistical Appendix

***Private health insurance*** *(PHI)* is another major source of health financing across the globe. Unlike social security, PHI is usually voluntary and it includes policies sold by the for-profit commercial firms, non-profit companies, and community health insurers. According to the WHO health financing mechanisms, premiums are paid directly by the employers, associations, individuals and families to insurance companies, which pool risks across their membership base.

*Private health insurance schemes accounted for only 3.0% of total health expenditures in OIC countries compared to 12.9% in the world*

As shown in Table 3.1, PHI contributed about 12.9 per cent of world total health expenditures in 2011. In general, PHI schemes are used both in developed and other-developing countries, however, provided the differences in wealth and institutional development in both groups, PHI is more widespread in developed countries. According to the latest estimates, PHI contributed about 15.1 per cent of total health expenditures in developed countries compared to only 8.6 per cent in other developing countries. In OIC member countries, PHI coverage remained comparatively very low and it contributed only 3.0 per cent of total health expenditures in 2011.

***Out-of-pocket*** health expenditures are paid by people directly at the time of use of health care services. It includes gratuities and in-kind payments made to health practitioners and

suppliers of pharmaceuticals, therapeutic appliances, and other goods and services, whose primary intent is to contribute to the restoration or enhancement of the health status of people (WHO, WHR 2005). According to the WHO estimates, it is the most regressive way of health financing and has variety of harmful consequences especially for the low income and poor households. According to the findings WHO, each year, out-of-pocket health expenditures drive about 100 million people below the poverty line and cause serious financial problems for another 150 million people across the globe (WHO, NHA Policy Highlight No.2/April 2010).

*In OIC countries, Out-of-pocket health spending remained significantly higher than the world average*

Globally, it is the most widely used method to pay for health services especially in developing countries. As depicted in Table 4, out-of-pocket health spending accounted for 21.4 per cent of world total health expenditures in 2011. Over the years, other-developing countries relied heavily on out-of-pocket spending to finance health expenditures. In 2011, out-of-pocket spending contributed 37.4 per cent of total health expenditures in other-developing countries compared to only 15.2 per cent in developed countries. OIC member countries are no exception. In OIC region, out-of-pocket spending accounted for 36.5 per cent of total health expenditures in 2011.

*Major Sources of Health Expenditures in OIC Regions*

The share of total health expenditures financed by government revenues varies greatly across the OIC regions. In 2011, it ranged from a low of 8.5 per cent and 10.6 per cent in SSA and MENA regions, respectively, to a high of 26.3 per cent and 19.5 per cent in ECA and EAP, respectively (Table 3.2). Governments in SA and LAC also financed 11.2 per cent and 12.6 per cent of their total health spending respectively. Between 2000 and 2011, member countries in MENA, LAC and SSA witnessed decreases in government allocations to health sector whereas EAP, ECA and SA witnessed an increasing trend.

**Table 3.2:** Major Sources of Health Expenditures in OIC Regions (%)

| OIC Regions | Tax | | Social Security | | External Resources | | Private Insurance | | Out-of-pocket | | Others | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2011 | 2000 | 2011 | 2000 | 2011 | 2000 | 2011 | 2000 | 2011 | 2000 | 2011 |
| **EAP** | 18.1 | 19.5 | 1.3 | 4.9 | 0.3 | 0.8 | 4.7 | 4.3 | 40.2 | 46.9 | 35.5 | 23.5 |
| **ECA** | 23.4 | 26.3 | 29.8 | 29.4 | 1.0 | 0.4 | 3.7 | 1.5 | 31.3 | 24.7 | 10.8 | 17.7 |
| **LAC** | 17.4 | 12.6 | 10.9 | 5.0 | 7.9 | 8.7 | 0.2 | 5.4 | 19.4 | 13.1 | 44.2 | 55.3 |
| **MENA** | 32.2 | 10.6 | 7.8 | 7.4 | 0.6 | 0.3 | 3.5 | 3.8 | 37.5 | 33.4 | 18.3 | 44.5 |
| **SA** | 9.3 | 11.2 | 0.8 | 0.5 | 3.1 | 7.4 | 0.1 | 0.2 | 60.9 | 64.6 | 25.9 | 16.1 |
| **SSA** | 17.2 | 8.5 | 0.5 | 0.9 | 14.1 | 13.0 | 1.9 | 1.4 | 60.4 | 56.3 | 5.9 | 19.9 |

*Source: Table A.12 in the Statistical Appendix*

Social security remained a very limited source of health care financing in all OIC regions except ECA. In 2011, only 0.5 per cent of total expenditures on health were financed by social health insurance schemes in SA, 0.9 per cent in SSA and 4.9 per cent in EAP region. On the other hand, these schemes accounted for 29.4 per cent of total health expenditures in ECA, 7.4 per cent in MENA and 5 per cent in LAC. Between 2000 and 2011, share of social health insurance in total health care spending has witnessed a downward trend in all OIC regions except EAP and SSA regions (Table 3.2).

Compared to social security schemes, private health insurance coverage was distributed more evenly across the OIC regions. As shown in Table 3.2, in 2011, contribution of PHI in total health spending ranged from a low of 0.2 per cent and 1.4 per cent in SA and SSA respectively to a high of 4.3 per cent and 5.4 per cent in EAP and LAC, respectively. In MENA and ECA, PHI contributed about 3.8 per cent and 1.5 per cent of total health expenditures respectively. Between 2000 and 2011, member countries in LAC, SA and MENA, witnessed increase in PHI contribution to health spending whereas it declined in rest of OIC regions.

Out-of-pocket spending remained the most popular method of financing health expenditures across the OIC regions especially in SA and SSA. In 2011, out-of-pocket spending in total health expenditures ranged from a low of 13.1 per cent and 24.7 per cent in LAC and ECA regions, respectively, to a high of 64.6 per cent and 56.3 per cent in SA and SSA, respectively (Table 3.2). In other regions, out-of-pocket spending accounted for 46.9 per cent of health expenditures in EAP and 33.4 per cent in MENA region. During the period under consideration, with the exception of SA and EAP regions, the share of out-of-pocket spending in total health expenditures decreased across the OIC regions and ECA and LAC regions witnessed the highest decline of 6.6 percentage points and 6.3 percentage points respectively.

There is a great degree of variation among the OIC regions and the share of external resources in total health expenditures remained comparatively higher in SSA (13.0 per cent), LAC (8.7 per cent) and SA region (7.4 per cent) in 2011. On the other hand, external resources contributed only 0.3 per cent, 0.4 per cent and 0.8 per cent of health expenditures in MENA, ECA and EAP regions respectively. Between 2000 and 2011, share of external resources in total health expenditures witnessed a decline in SSA (1.1 percentage points) whereas it increased by 4.3 percentage points in SA region (Table 3.2).

### 3.2.5 Per capita Health Expenditures

*Per capita health expenditures remained comparatively very low in OIC member countries*

Per capita expenditure on health is an important indicator which indicates consumption of health goods and services at the micro level. As shown in Figure 3.14, per capita health expenditures (measured at average exchange rate) have increased across the world between 2000 and 2011. In this period, global per capita health expenditures increased from US$ 486 to US$ 1010, corresponding to a growth rate of 108 per cent. In developed countries, per capita health expenditure increased from US$ 2766 in 2000 to US$ 4807 in 2011,

corresponding to a growth rate of 108 per cent. Meanwhile, per capita health spending in other developing countries increased from US$ 68 to US$ 460, almost seven-folded. Despite significant progress, per capita health expenditures remained comparatively very low in OIC member countries. During the period under consideration, average OIC per capita health expenditures increased from US$ 57 to US$ 387.

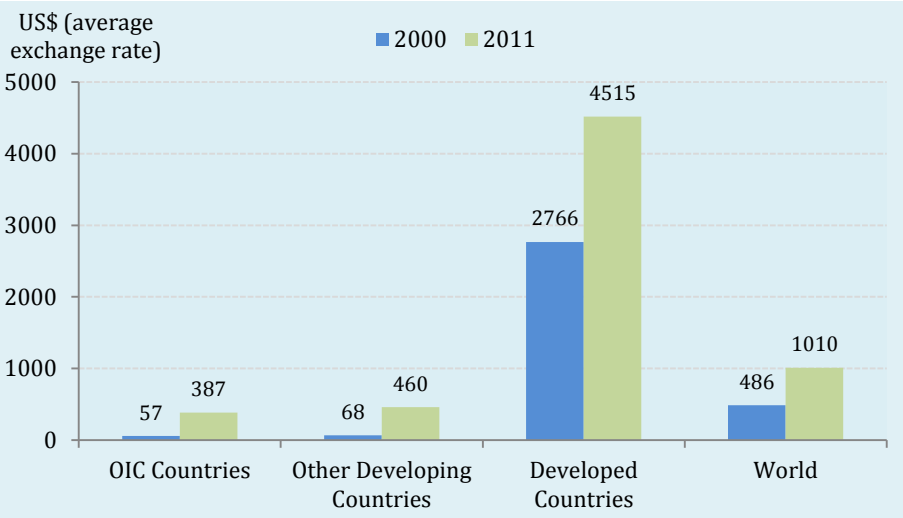



**Figure 3.14:** Per capita Health Expenditures

OIC member countries are seriously lagging behind.

*Source:* Table A.11 in the Statistical Appendix

At the OIC regions level, per capita health spending ranged from a low of US$ 97 and US$ 120 in SA and SSA regions, respectively, to a high of US$ 745 and US$ 804 in ECA and MENA, respectively, while it was US$ 525 in LAC and US$ 425 in EAP (Figure 3.15). Those regions where per capita spending on health was comparatively low in 2000 registered significantly higher growth during the period under consideration. As shown in Figure 3.15, EAP registered an increase of 1411 per cent followed by SA (720 per cent) and SSA (609 per cent). On average, per capita health spending in ECA, MENA and LAC remained higher than the other-developing countries and OIC countries averages in 2011.

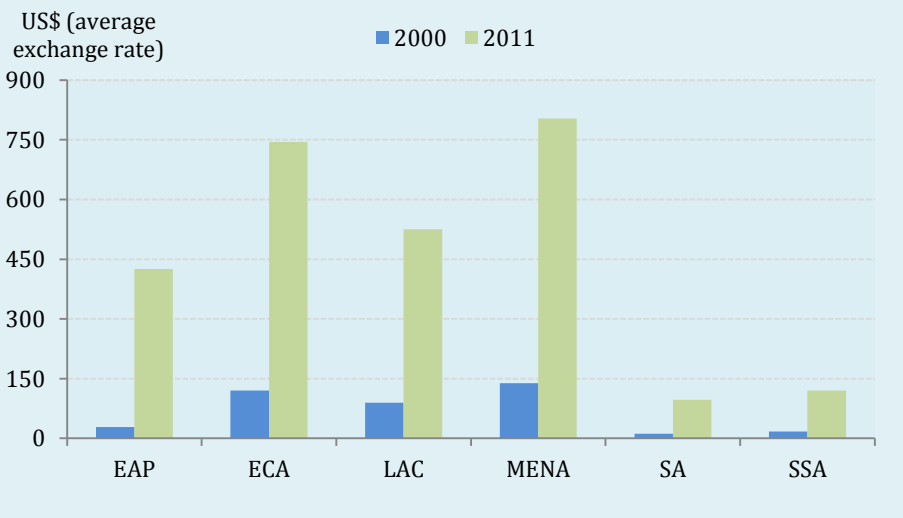


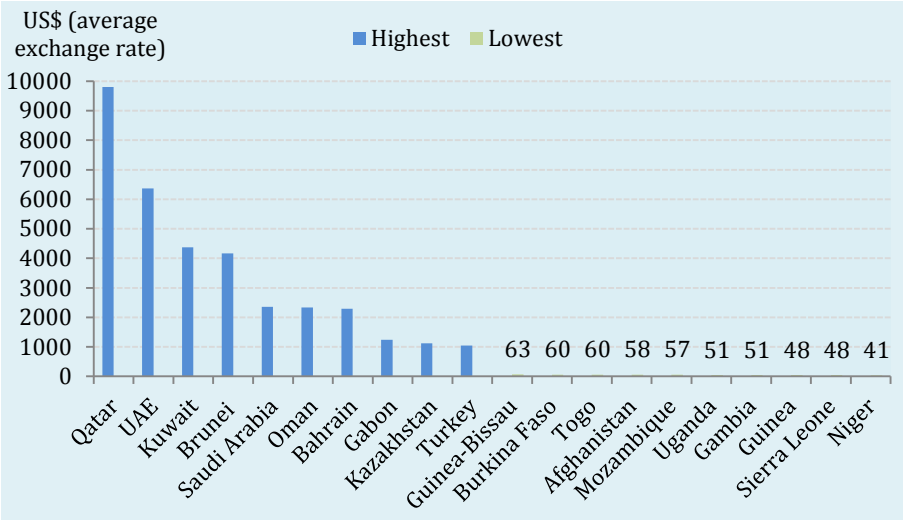

**Figure 3.15:** Per capita Health Expenditures in OIC Regions

Per capita health expenditures remained significantly high in ECA region.

*Source:* Table A.11 in the Statistical Appendix

At the individual country level, per capita health expenditures at average exchange rate remained highest in member countries located in MENA region. As shown in Figure 3.16, 6 out of top-10 OIC countries are from MENA, 2 from ECA and 1 from EAP and SSA each. Among these countries, per capita health expenditures remained greater than US$ 4000 in Qatar (US$ 9803), UAE (US$ 6362), Kuwait (US$ 4372) and Brunei (US$ 4163). In contrast, per capita health expenditures at average exchange rate remained very low in member countries located mainly in SSA and SA region. As shown in Figure 3.16, 9 out of these 10 countries are from SSA and 1 from SA region. In these countries, per capita health expenditures ranged from US$ 41 in Niger to US$ 63 in Guinea-Bissau and US$ 60 in Burkina Faso and Togo, respectively. In 2011, 23 member countries recorded per capita health expenditures higher than the OIC average whereas 20 out of these 23 countries registered per capita health expenditures higher than the other developing countries average of US$ 460 (see Annex Table A.12).

**Figure 3.16:** Member Countries with Highest and Lowest Per capita Health Expenditures, 2011




*Source:* Table A.11 in the Statistical Appendix

## 3.3 Insufficient Health Force and Hospitals

Adequate number of hospitals, trained professional and managerial staff, modern equipment and pharmaceuticals are the basic ingredients for an efficient and effective health system in a country. This section highlights the performance of OIC member countries with respect to basic health infrastructure and workforce.

### 3.3.1 Health Work Force

Health work force is the backbone of health care system in a country. Globally, it is a well-established fact that the size, composition and distribution of health workers play an important role for the prompt and efficient delivery of health care services. Over the years, among others, shortage of well-trained health workforce remained the most basic reason behind low immunization coverage, limited outreach of primary health care services and high infant, child and maternal mortality rates across the developing world (WHO, WHR 2006). There are various social, economic and political reasons behind the global disparity of health workers.

In 2000-2011, globally there were 9.4 million physicians. This means that, on average, there were 13.8 physicians per 10,000 people. Out of these 9.4 million doctors, around 56 per cent were in other developing countries however, the density of doctors in these countries remained quite lower (12.3 physicians per 10,000 people) compared to the developed countries (30 physicians). In 2000-2011, there were 1.2 million physicians in OIC member countries. This constituted about 15.0 per cent of the world and 18.8 per cent of total physicians in developing countries. The density of physicians remained comparatively very low in OIC member countries as there were only 8 physicians per 10,000 people in 2000-2011 (Figure 3.17).

According to the latest statistics, in 2000-2011 there were 19.8 million nurses and midwives in the world. This means that on average there were 29 nurses and midwives per 10,000 people. Out of these 19.8 million nurses and midwives, around 46.5 per cent were in other-developing countries; however, the density of nurses and midwives in these countries was quite lower (21.1 nurses and midwives) compared to the developed countries (83.1 nurses and midwives). In 2000-2011, there were over 2.7 million nurses and midwives in OIC member countries. This corresponded to 13.9 per cent of the world total and 23.0 per cent of total nurses and midwives in developing countries. The density of nurses and midwives remained only at 17.9 per 10,000 people in the OIC member countries (Figure 3.17). Across the world, density of health workforce (physicians, nurses and midwives) remained higher than the threshold level of 23 for considering a country/region to be facing a health workforce crisis.

*OIC countries accounted for 26% of world and 40% of other developing countries total health workforce*

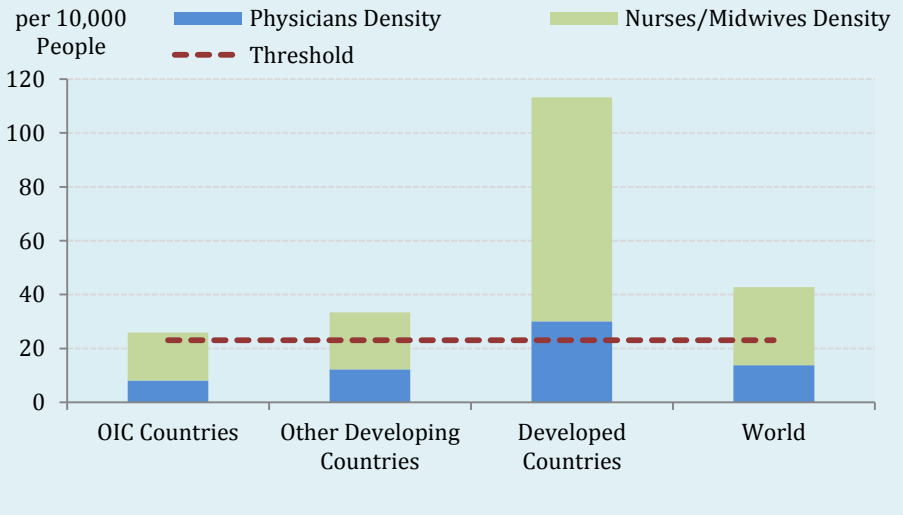



**Figure 3.17:** Density of Health Workforce, 2000-2011

Density of health workforce remained comparatively low in OIC countries.

*Source:* Table A.13 in the Statistical Appendix

The distribution of doctors varies greatly across the OIC regional groups. In 2000-2011, 40.4 per cent of total physicians in the OIC member countries were located in MENA region whereas 27.8 per cent in ECA and 16.4 per cent in SA region. Collectively, these three regions accounted for more than 84 per cent of total physicians in OIC member countries. In contrast, EAP and SSA accounted for just 7.9 per cent and 7.4 per cent of OIC total, respectively. Density of physicians per 10,000 people also varies greatly across the OIC regions as it ranges from a low of 2.3 and 3.6 physicians in SSA and EAP, respectively to a

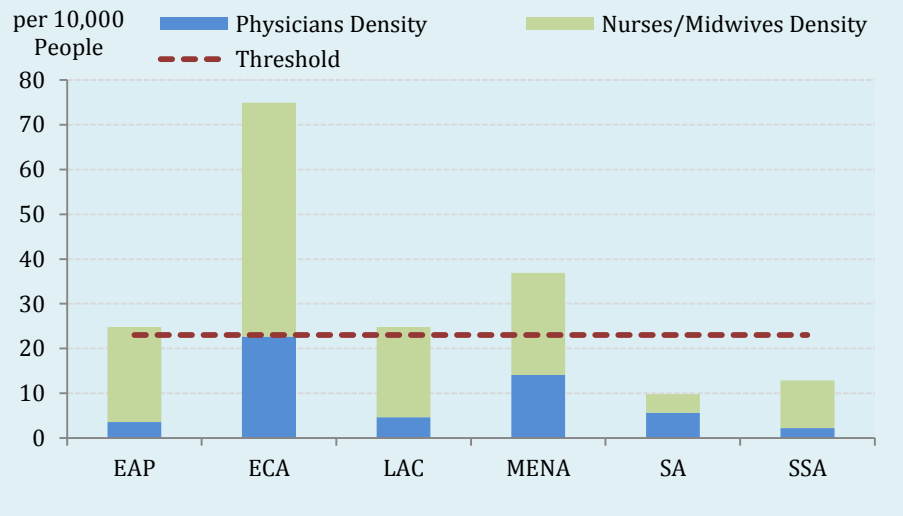
high of 14.1 and 22.7 in MENA and ECA, respectively. In SA and LAC there were only 5.7 and 4.7 physicians per 10,000 people, respectively (Figure 3.18).

In 2000-2011, 29.3 per cent of total nurses and midwives in the OIC member countries were located in MENA region whereas this share reached to 28.7 per cent in ECA and 20.9 per cent in EAP region. Collectively, these three regions accounted for more than 78.8 per cent of total nurses and midwives in OIC member countries. In contrast, LAC and SA accounted for only 0.1 per cent and 5.3 per cent of OIC total nurses and midwives, respectively. Quite surprisingly, member countries in SSA region accounted for 15.7 per cent of OIC total nurses and midwives in 2000-2011. The density of nurses and midwives also differs greatly across the OIC regions as it ranges from a low of 4.2 and 10.6 nurses and midwives per 10,000 people in SA and SSA, respectively to a high of 52.2 and 22.8 nurses and midwives in ECA and MENA, respectively (Figure 3.18). There were 21.2 nurses and midwives per 10,000 people in EAP and 20.2 in LAC region. On average, density of nurses and midwives in ECA region remained higher than the world, other developing and OIC averages; while in MENA region it was higher than the developing and OIC averages. With the exception of SA and SSA regions, density of health workforce (physicians, nurses and midwives) remained higher than the threshold level of 23 for considering a country/region to be facing a health workforce crisis.

**Figure 3.18:** Density of Health Workforce in OIC Regions

Density of health workforce varies greatly across the OIC region.

*Source:* Table A.13 in the Statistical Appendix




### 3.3.2 Hospital Beds per 10,000 Population

*Only 12 hospital beds are available for 10,000 people in OIC countries compared to 29 beds in the world*

Number of hospital beds is an important indicator of overall capacity of a health care system. As availability of sufficient number of hospital beds help to deliver health care services to patients in a more effective way.

Globally, there were 29 beds per 10,000 people in 2000-2011. At the regional level, density of hospital beds remained quite higher in developed countries where 56 hospital beds were available per 10,000 people; whereas in other developing countries there were just 29 hospital beds available per 10,000 people. The availability of hospital beds remained

comparatively very low in OIC member countries as there were only 12 hospital beds for 10,000 people in 2000-2011 (Figure 3.19).

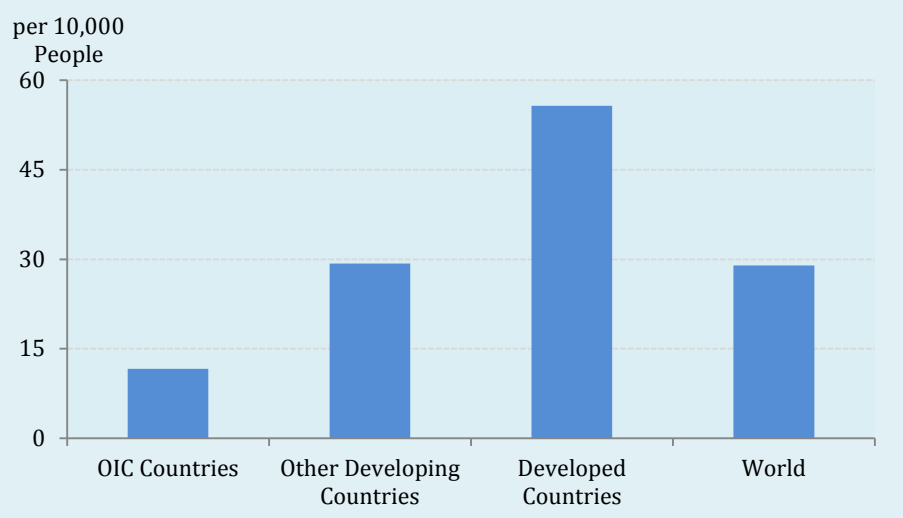



**Figure 3.19:** Hospital Beds, 2000-2011

OIC countries are seriously lagging behind.

*Source:* Table A.13 in the Statistical Appendix

The availability of hospital beds per 10,000 people varies greatly across the OIC regions. As shown in Figure 3.20, in 2000-2011 there were about 41 hospital beds per 10,000 people in ECA compared to only 5 hospital beds in SA. Among other regions, there were 24 hospital beds per 10,000 people in LAC followed by 16 in MENA, 7 in EAP and 6 hospital beds per 10,000 people in SSA. On average, hospital beds per 10,000 people in ECA remained higher than the world, other developing countries and OIC averages.

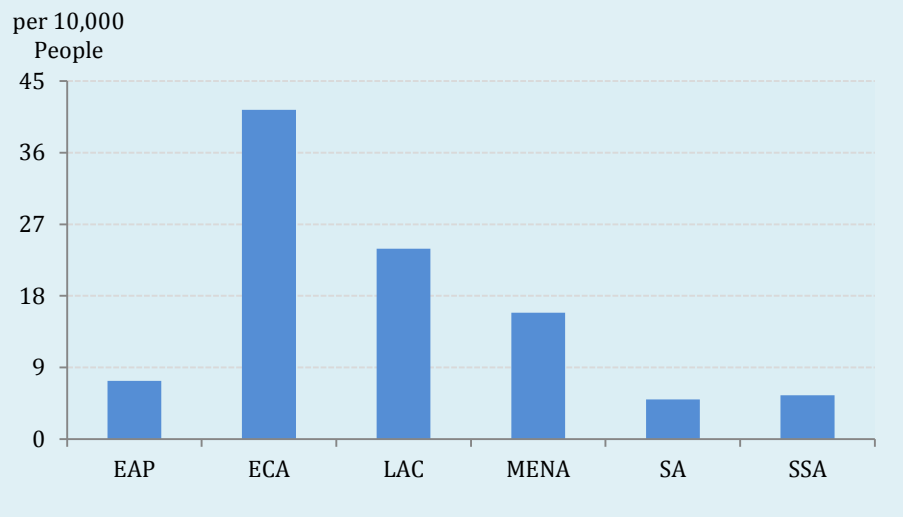



**Figure 3.20:** Hospital Beds in OIC regions, 2000-2011

Availability of hospital beds per 10,000 people remained significantly high in ECA region.

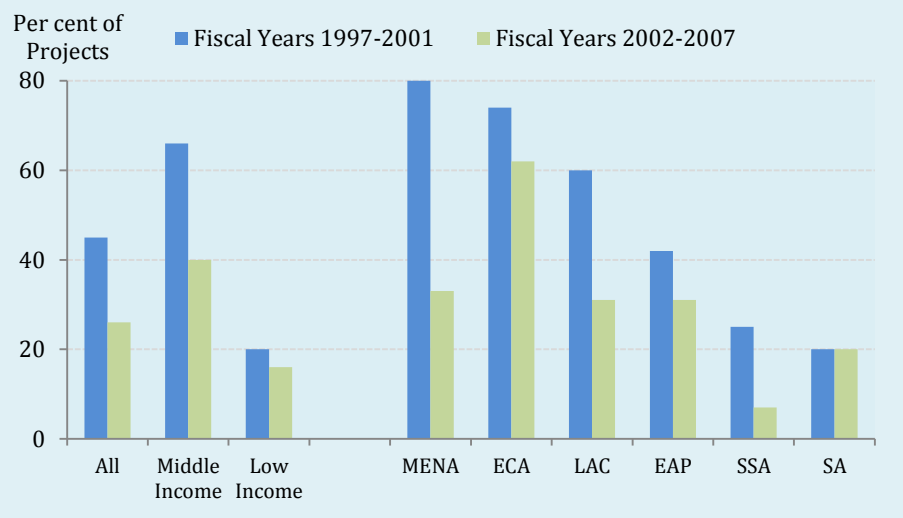
*Source:* Table A.13 in the Statistical Appendix

## 3.4 Poor Progress at Health Reforms

Health reform, or restructuring of the health system, is a key ingredient for a better-off health status in the OIC member countries. At the global level, however, the World Bank Report on the outcomes of Health, Nutrition and Population (HNP) Programme (2009) reveals how the share in health projects with reform objectives declined by nearly half from 45 per cent to 26 per cent between the fiscal years 1997-2001 and 2002-2007 (Figure 3.21). The

share has declined most significantly in Middle East and Africa, where 70 per cent of the OIC countries are located. Three quarters of the reform projects since 1997 have been implemented in the middle-income countries, including many OIC countries (see Annex Table A.14).

**Figure 3.21:** Share of HNP Project Approvals with Health Reform Objectives




*Source:* Table A.14 in the Statistical Appendix

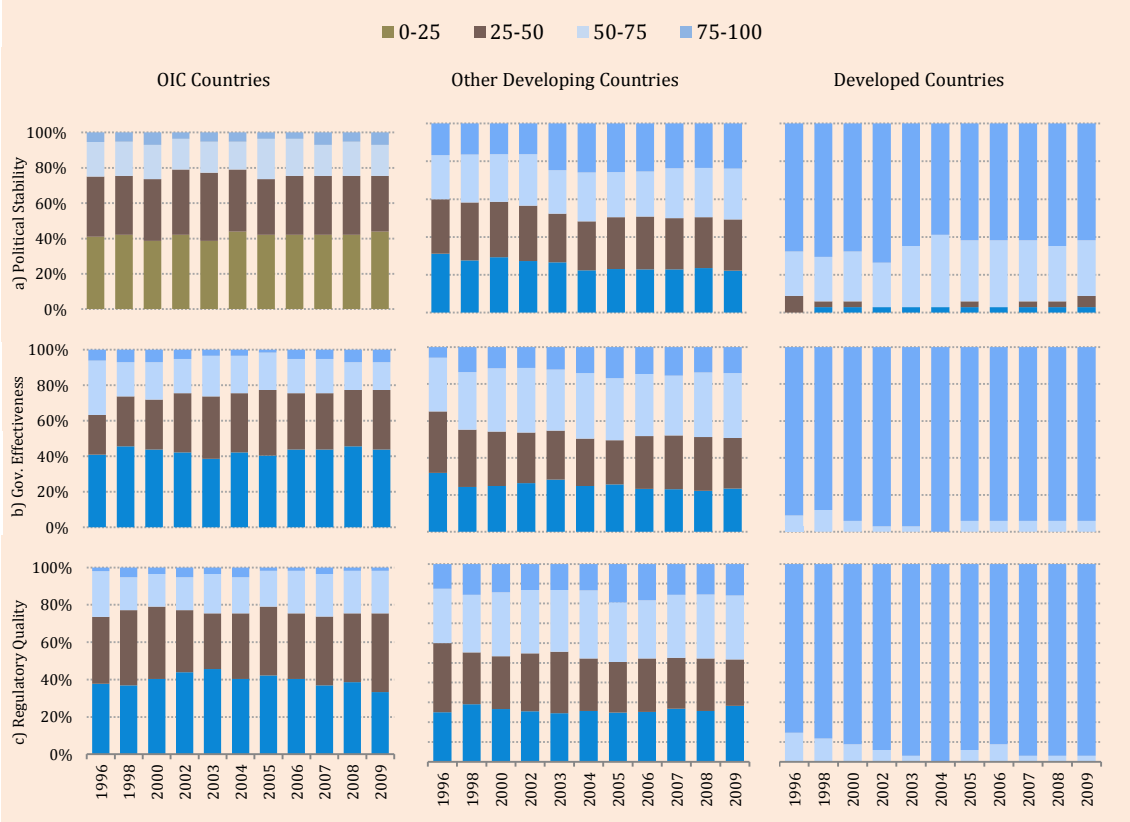
However, health reform projects characteristically have lower outcomes than do projects without reform objectives. The obstacles for many health system reforms are similar to those blocking improvement in public administration more generally, as are the measures to overcome them. As for OIC countries, factors that inhibit stronger performance in health reforms are various.

- ***Complex links between reforms and their outcomes for the under-serviced:*** The links between health reform projects in the OIC countries and their benefits for the poor are generally complex and uncertain. The first and second Health Reform Projects in the Kyrgyz Republic (1996–2006), for example, improved the efficiency of the health system, but they were less successful in redistributing funds in favour of the poor or addressing their health needs. Primary care was strengthened, broadened, and made more available, with clear improvements in access to care for the poorer populations. However, the guaranteed benefits were not universally implemented because of a shortage of funds. The centralization of fragmented pooling arrangements should have enhanced opportunities for efficiency and cross-subsidization, but it is not clear that this actually benefited the poor. During the second project, anticipated redistribution of resources from relatively rich to the poorer regions did not occur. Neither project tracked health outcomes among the poor. The Egypt Health Reform Program (1998–present), on the other hand, intended to improve the health of the poor, yet chose to concentrate initially on relatively affluent governorates to increase the chances of success. The poor within these areas would benefit by rationalizing health infrastructure investment with an emphasis on underserved neighbourhoods. But fewer than 40 per cent of facilities followed the pro-poor rationalization guidelines; positive gains were undermined

by enrolment and service fees without proper mechanisms to exempt the poor. Concern for the failure to enrol the poor was not voiced until 2004; tracking of the enrolment of the poor was not added as an indicator for the project until late 2007.

- ***Governance:*** Poor reform outcomes in the OIC member countries particularly result from political instabilities, government ineffectiveness and lack of prudent regulatory frameworks, each of which have a direct impact on the ownership of and commitment to health reforms. The likelihood that the government will be destabilized by violent means, namely the political instability, undermines the prospects for reform as the support will be abandoned with a change in government (Figure 3.22a). Indeed, the World Bank Independent Evaluation Group (IEG) reports that the all three OIC countries that undertook health reform and were studied in-depth by IEG (Bangladesh, Egypt and Kyrgyz Republic) experienced changes in leadership with the potential to affect the health reform agenda (IEG, 2009). Moreover, poor quality in public and civil services as well as policy formulation and implementation, high degree of exposure to political pressure and lack of credible support from government to reform policies also undermine the success of structural health reforms in the member countries (Figure 3.22b). Last but not least, government inability to formulate and implement profound policies and regulations that enable and promote private sector involvement in health sector constitutes another significant setback for the member countries (Figure 3.22c).

**Figure 3.22:** Governance: Proportion of countries by indicator value




*Source:* World Bank Worldwide Governance Indicators (WGI) Database

- ***Inadequate Stakeholder Analysis:*** Health reform projects create winners and losers; it is important that their interests be understood from the outset. High-level commitment is no guarantee that key stakeholders in the health system or the general public will go along with a reform; stakeholders who have a role in implementing any reform can simply not cooperate. The general public may perceive, for example, that a reduction in excess hospital capacity is reducing their access to health care. Even within an institution, the interests and incentives may vary according to whether the person is a manager or delivers services. The experiences of Bangladesh and Egypt are typical in this regard. In Kyrgyzstan Health Reform, on the contrary, the reform strategy was totally owned by a group of reformers in the Ministry of Health and a considerable prior analysis and a strategy for navigating the winners and losers.

# 4 OIC Cooperation in Health Domain

The domain of health constitutes an important element among the extensive range of mandates which emanate from the OIC Ten-Year Program of Action. This is based on the realization of the fact that health is central to overall human development and reduction of poverty. The OIC Ten-Year Program of Action has recommended the following actions pertaining to health sector:

*"Mandate the Islamic Development Bank to coordinate with the OIC General Secretariat in order to make the necessary contacts with the World Health Organization and other relevant institutions to draw up a program for combating diseases and epidemics, to be financed through the special fund that will be created within the IDB".*

*"Strengthen laws aimed at preserving the rights of children, enjoying the highest possible health levels, taking effective measures in order to eradicate poliomyelitis and protect them from all forms of violence and exploitation".*

*Health sector is an important constituent of the OIC Ten-Year Program of Action*

The 11th Islamic Summit Conference, held in Dakar in 2008 called upon the OIC General Secretariat and the IDB to step up their activities, with the involvement of relevant international organizations, such as the WHO, in the area of combating diseases and epidemics. The Summit also appreciated the establishment of contact between the OIC and the US Department of Health and Human Services and their agreement to formalize their relations. Subsequently, the OIC and the US Government signed a Cooperation Framework on "Reaching Every Mother and Baby in the OIC Emergency Care" on 1st December 2008.

The 35th, 36th and 37th sessions of the Islamic Council of Foreign Ministers adopted resolutions in the area of health which, inter alia, underscored the importance of cooperation in the field of health related Millennium Development Goals and requested the OIC General Secretariat to explore with relevant international organizations and specialized UN agencies such as WHO, UNICEF, UNFPA and UNAIDS the possibilities of elaboration and implementation of feasible regional health projects. The 37th ICFM appreciated the efforts of the OIC General Secretariat to coordinate with Global Polio Eradication Initiative and Roll Back Malaria Partnership. It requested the General Secretariat to expedite the implementation of the project "Reaching Every Mother and Baby in the OIC with Emergency Care" under the OIC-US Cooperation Framework signed in 2008.

*OIC General Secretariat collaborate with international health agencies to implement regional health projects*

The 2nd Islamic Conference of Health Ministers (Tehran, 1-4 March 2009) under the theme "Health Equity in Islamic Ummah" issued Declaration that encouraged the international organizations to assist the OIC member states to expand national immunization programs to reach all unvaccinated children. It requested the OIC, WHO and other relevant international organizations to cooperate to foster health capacity building programs in the OIC member states to promote health equity. The Declaration urged all the OIC member states and international organizations including WHO to provide and mobilize adequate resources and support to protect public health and strengthen the healthcare delivery system in Palestine in general and Gaza in particular, Syrian Occupied Golan and other conflict affected areas.

The 2nd Conference also approved establishment of a Steering Committee on Health to monitor the implementation of the decisions of the Health Ministers Conferences. The Steering Committee functions under the authority of and is guided by the Islamic Conference of the Ministers of Health.

The Steering Committee on Health comprises 15 member states representing the three OIC regions, the OIC General Secretariat, the OIC Institutions such as IDB, ISESCO, COMSTECH, SECRIC and Intergovernmental Organizations such as WHO. It held its 1st Meeting on 4- 5 April 2009 at Ministry of Health of Iran, Tehran and adopted its Terms of Reference. The Steering Committee decided to request the OIC member states and members of the Committee to provide regular feedback on the actions taken to implement the resolutions adopted by the First and the Second Islamic Conference of Health Ministers. The Seventh Meeting of the OIC Steering Committee on Health will be hosted by the Ministry of Health of the Republic of Indonesia on 21 October 2013 in Jakarta during the 4th Islamic Conference of Health Ministers.

## Combating diseases and epidemics

### *Polio Eradication*

Eradication of polio continues to be among the critical issues that need to be addressed in earnest by the OIC. Afghanistan, Nigeria and Pakistan are the last three polio endemic countries in the world. Additionally, some OIC member states are also among the list of countries marked with the recurrence of polio. Although no new polio cases have been

reported in the last 6 months from the polio re-affected member states, challenges in these countries remain. For example, the recent spread of polio once again in Central Asia. This region was certified polio-free since 2002, but due to a recent importation of poliovirus of Indian origin, Tajikistan reported polio cases. It is feared that polio may have spread to other Central Asian countries. Russia has reported 13 cases – reportedly, importations from Central Asia.

After the 2nd Islamic Conference of Health Ministers (Tehran, 2009), the OIC General Secretariat established close contact with the Global Polio program to enhance collaboration on polio eradication for 2009 and beyond. On the basis of the work program, the OIC General Secretariat contacted Heads of State of Afghanistan, Nigeria and Pakistan, the three remaining polio affected member states and the Head of State of Chad being one of polio re-affected OIC countries to advocate and draw their attention to polio eradication.

The OIC General Secretariat secured religious injunction from the Islamic Fiqh Academy which issued a fatwa to encourage the Muslims to participate and support the national polio vaccination campaigns. Quoting extensively from the Qu'ran, the fatwa lays out the duty to protect children when disease is preventable. The fatwa addresses the critical need to raise awareness in Muslim communities about the benefits of polio immunization campaigns.

*Eradication of Polio is a health priority in OIC region*

The IDB has expressed its readiness to provide initial contribution of US$ 500,000 for UNICEF to procure polio vaccines on behalf of the Government of Afghanistan.

The OIC General Secretariat participated during the launching of national polio vaccination campaign in Pakistan in October 2009. The Government of Pakistan appointed Ms. Aseefa Bhutto Zardari as Ambassador for Polio Eradication in Pakistan. The Postal Department of Pakistan issued a special stamp on this occasion.

The OIC General Secretariat co-sponsored along with US State Department and UNICEF a panel discussion on Polio in December 2009 at the UN HQ New York. A joint event on combating polio was also organized in September 2010 at the sidelines of the annual session of the UN General Assembly. OIC Secretary General and President Obama's special envoy for OIC attended the event.

### *Cooperation with the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria*

A Memorandum of Understanding (MoU) between the OIC General Secretariat and the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria was signed by the OIC Secretary General and the Executive Director of the Global Fund during the 36th session of the Council of Foreign Ministers (Damascus, 23-25 May 2009).

The MoU aims at strengthening cooperation between the two organizations to fight against the three diseases. Pursuant to the MoU, the General Secretariat has been working with the OIC Member States and other partners, including the IDB, to advocate action against HIV/AIDS, Malaria and Tuberculosis and to raise awareness about the Global Fund's vision, mission and work.

Since the creation of the Global Fund, 46 OIC Member States have benefitted from the Global Fund in the form of US$ 4 billion allocated for fighting HIV/AIDS, US$ 3 billion for Malaria and US$2 billion for Tuberculosis. Kingdom of Saudi Arabia, State of Kuwait, Nigeria, Uganda and Brunei-Darussalam are among the OIC member states which have contributed to the Global Fund.

In September 2010, at the sidelines of the annual session of the UN General Assembly, the OIC Secretary General and the Global Fund co-hosted a lunch for OIC member states. The purpose of the event was to brief donor countries among the OIC member states on the status of fight against HIV/AID, Malaria and Tuberculosis and to invite them to contribute to the Global Fund.

*Elimination of Malaria*

*Elimination of HIV/AIDS, Malaria and Yellow fever remained high on the OIC health agenda*

The delegation of Roll Back Malaria Partnership (RBM) visited the OIC Headquarters in April 2009. The two sides agreed to coordinate their activities and accelerate their efforts to combat malaria so as to achieve universal coverage by 2010 with the view to move countries steadily towards malaria elimination and eventual eradication. The possibility of producing anti malaria pills was also discussed.

On the invitation of the RBM, the OIC General Secretariat to participate along with the Islamic Chamber of Commerce and Industries (ICCI) at the 5th RBM Procurement and Supply Chain Management (PSM) Working Group Meeting held on 20-22 January, 2010 at WHO Headquarters, Geneva. The meeting gave opportunity for the OIC and ICCI to establish contacts with potential partners on a project to produce anti-malaria pills.

The Government of Abu Dhabi, United Arab Emirates announced grant of 25 million US dollars, over five years, to support the work of the RBM Partnership and bolster efforts to eradicate the parasite infection from the malaria endemic countries, including in the OIC member states.

*Yellow fever*

The General Secretariat circulated status report on yellow fever received from WHO and UNICEF to the OIC member states. In response, the Arab Republic of Egypt reported several measures to combat yellow fever. The Government of the Kingdom of Saudi Arabia offered through the OIC donation of 4000 ampoules of yellow fever vaccine to the WHO and UNICEF.

### *Vaccines and drugs production*

The 8th Islamic Summit of the OIC (Tehran, December 1997) adopted strategies presented by the IDB towards the Preparation of the Ummah for 21st Century in the areas of education, health, human resources development and Intra-OIC trade. The IDB formed a Task Force in the field of health and evolved a new strategy for implementation of the self-reliance in vaccine production in the Islamic World program. Out of the approved US$ 5.6 million, US$

2.063 million has been spent which includes six projects approved or processed for approval for a total amount of US$ 1.829 million.

*IDB launched Mega Project on production of biotechnological based drugs and vaccines in OIC member countries*

The 1st Islamic Conference of Health Ministers (Kuala Lumpur, June 2007) adopted Resolution No.KLOICHMC-1/2007/2.1 which urged the OIC member states to consider being self-reliant and self-sufficient in their immunization programs by ensuring the reliable supply of good quality, safe, effective and affordable vaccines by strengthening National Regulatory Authorities.

The 11th Islamic Summit Conference adopted resolution No. 1/11-S&T (IS) welcoming the launching of the Mega Project on production of biotechnological based drugs and vaccines. All OIC member states are invited to participate in the implementation of the Mega Projects either by joining the holding companies to be established for the Mega Projects or by offering to produce and manufacture or to assist in distribution and marketing of the products.

In the context of efforts towards self-sufficiency and self-reliance in vaccines and drugs production, the OIC General Secretariat, on the invitation of the US Department of Health and Human Services, participated in Sustainable Influenza Vaccine Production Capacity Stakeholders' workshop from 11 to13 January 2010 in Washington, DC. The opportunity was utilized to further explore possibilities of transfer of technology for production of vaccines and drugs. Experts from Turkey, Kazakhstan, Indonesia, Malaysia and ICCI also participated in an International Vaccine Technology workshop held in Hyderabad, India in September 2010. The workshop was organized by the US Department of Health and Human Services as one of the recommendations of the workshop held in Washington in January 2010. A meeting to discuss next steps being planned

*OIC-US cooperation on mother and child health*

The 1st Islamic Conference of Health Ministers (Kuala Lumpur, June 2007) adopted Resolution No.KLOICHMC-1/2007/2.5 on Mother and Child Health. In pursuance of this resolution, the OIC General Secretariat with the assistance of the Centre of Disease Control and Prevention (CDC) of US prepared a project entitled "Reaching Every Mother and Baby in the OIC Emergency Care". The OIC and the US Government signed a Cooperation Framework on 1st December 2008 to implement the project.

*OIC-US project on mother and child health aims to reach one million women and their babies annually in OIC member countries*

The project has the followings specific objectives to:

- reach up to one million women and their babies annually;
- train midwives to achieve the required numbers of care providers for mothers and babies;
- ensure basic emergency care in primary care centres and obstetric surgical units with specialized services;
- equip computerized/palm pilot/internet based surveillance and monitoring capacity in primary and specialized centre.

The 36th CFM requested the OIC General Secretariat to fully implement the project entitled "Reaching Every Mother and Baby in the OIC with Emergency Care".

The President of the United States in his speech delivered in Cairo on June 4, 2009, inter alia, committed to expand partnerships with Muslim communities to promote child and maternal health under the action to be taken in the Science and Technology domain.

*Bangladesh and Mali are selected to pilot the OIC-US project on mother child health*

In August 2010, a delegation of USAID and US State Department visited OIC Headquarters in Jeddah to discuss the implementation of US-OIC project on Mother Child Health. It was decided to pilot the project in two OIC countries namely Bangladesh from the Asian region and Mali from African region.

The OIC and USAID delegations visited Bamako, Mali on 1 November 2010 and met with the Government of Mali on the implementation of the project. The meeting identified causes of high mortality rate for mother and infants and recommended various actions towards reducing the rate to meet the commitment of the government of Mali at the UN General Assembly in September 2010. The partnerships between OIC-US Government and Government of Mali to reduce mortality rate of mother during delivery and infant for first 4 weeks was launched on 4 November 2010. The implementation of the project will involve religious and community leaders, women groups, civil societies and a number of international partners.

### *OIC Strategic Health Programme of Action (OIC-SHPA) 2013-2022*

OIC-SHPA is another major OIC initiative in the domain of health. The 2nd Islamic Conference of Health Ministers (ICHM) held in Tehran, Islamic republic of Iran, on 1-4 March 2009 mandated the OIC Steering Committee for Health, in collaboration with member countries, to develop a draft OIC Strategic Health Program of Action (OIC-SHPA) to be submitted and adopted at the 3rd Session of the ICHM. In its 3rd meeting, which was held at the OIC Headquarters in Jeddah on 22-23 January 2011, the OIC Steering Committee for Health formulated Terms of Reference (ToR) for the preparation of the OIC-SHPA. The Committee further decided that the initial draft could be prepared by a group of consultants, to be hired by the General Secretariat, and submitted to the Steering Committee.

SESRIC as the lead institution prepared this important document along with its implementation plan in collaboration with member countries, relevant OIC institutions and international health organizations. OIC-SHPA is a framework of cooperation among OIC member countries, relevant OIC institutions and international organizations in the domain of health. It aims to strengthen health care delivery system and improve health situation in OIC member countries especially by facilitating and promoting intra-OIC transfer of knowledge and expertise. Based on the analysis of current health status of OIC member countries and magnitude of their health problems, OIC-SHPA identified six thematic areas for joint action: (1) Health System Strengthening, (2) Disease Prevention and Control, (3) Maternal, New-born and Child Health and Nutrition, (4) Medicine, Vaccine and Medical Technologies, (5) Emergency Health Response and Interventions, and (6) Information,

Education, Research and Advocacy. In what follows, the salient features of these six thematic areas will be discussed and the major actions and activities proposed both at national and intra-OIC level will be highlighted.

Thematic area 1 covers the six building blocks of health system: (i) leadership/governance (ii) service delivery, (iii) health workforce, (iv) health information system, (v) access to essential medicines, and (vi) financing. There are six programmes of actions under this thematic area which focus at strengthening of health system in OIC member countries. These programmes of actions propose several actions and activities both at national and intra-OIC OIC level to achieve universal health care coverage by establishing or strengthening a high-level multisectoral health committee as well as local level intersectoral cooperation with representation from other public sector ministries, nongovernmental organizations, the private health sector and other stakeholders to prepare a roadmap for achieving universal health coverage; establish an arrangement of payment scheme (e.g., free access for primary health care, co-payment/cost-sharing for secondary and tertiary health care); and facilitate knowledge exchange and the co-production of new knowledge among member countries through the joint capacity building programmes, which brings together implementers and policymakers to jointly develop innovative approaches to accelerate progress towards implementing universal health care coverage. Strengthening of health information system including collection, analysis and use of disaggregated data is another major area of emphasis under this thematic area. In this regard, several actions and activities have been recommended including: review and upgrading of the current status of the national health information system and its key elements (monitoring health risks and morbidity disaggregated at least in sex, age and place of residence, registering cause-specific disaggregated mortality statistics and assessing health system capacity and performance); strengthening of national capacities in conducting equity analysis of disaggregated data collected through the national health information system, supplemented by data on social determinants of health, to ensure that within country population vulnerabilities/inequities in health are identified, monitored and addressed; and enhancing OIC level cooperation to increase ability of ministries of health to successfully manage the process of transforming data into knowledge, knowledge into guidelines, and guidelines into improved, cost-effective programs and public health practices. Promoting a balanced and well managed health workforce with special focus on disadvantaged areas; ensuring access to essential health commodities and technologies; and strengthening health financing system to enable wider access to quality care services are also among the recommended actions for strengthening of health systems in OIC member countries.

Thematic area 2 covers both communicable and non-communicable diseases and proposes five programmes of action for their prevention and control. These programmes of action recommend several actions and activities both at national and intra-OIC level to prevent, combat and control diseases by: promoting community awareness and participation by organizing community awareness programmes; assessing and monitoring the public-health burden imposed diseases, strengthening the capacity of individuals and populations to

make healthier choices and follow lifestyle patterns that foster health preservation and their social determinants; and establishing capacity building networks among the disease prevention and control centres/institutions in the member countries. Establishing a sound monitoring and evaluation framework for disease prevention and control is another major area of emphasis under this thematic area. In this regard, it recommend many actions and activities to promote scientific research and data collection and management including equity data with a view to raising the standard of communicable and non-communicable disease control and allowing for benchmarking the progress against other OIC as well as non-OIC countries; developing and improving (existing) evidence-based norms, standards and guidelines for cost-effective interventions and by reorienting health systems to respond to the need for effective management of chronic diseases; facilitating cooperation among the member countries in building and disseminating information about the necessary evidence base and surveillance data in order to inform policy-makers, with special emphasis on the relationship between disease control, poverty and development; and enhancing and facilitating South-South collaboration and border meeting between neighbouring countries to control the spread of communicable diseases. Enhancing health diplomacy and increasing engagement with regional and international organizations with a view to exchanging knowledge, and creating synergies and new funding opportunities is one of the various recommended actions at OIC level to prevent and control diseases in OIC member countries.

Thematic area 3 proposes five programs of actions to promote MNCH in OIC countries. These programs of actions recommend several actions and activities both at national and intra-OIC level to ensure access to adequately equipped local health centres for every woman, new-born, and child and improving quality and efficiency of service delivery by developing home-based maternal and new-born care programs based on successful models of community health workers, enhancing cooperation among member countries in identifying and addressing gaps in coverage and quality of care along the continuum of care for maternal, new-born, and child health. Implementation of long-term policies and programs to develop health workforce and accordingly increase the attendance of skilled health personnel during childbirths is another area of emphasis under this thematic area. In this regard, it proposes actions to resolve inequities in the distribution of health workers and ensure the availability of adequate numbers of skilled health workers at health centres and hospitals in every district; increase investment in human resources to offset the present momentum of emigration of qualified personnel from low income countries and improve the conditions of qualified personnel to prevent them emigrating; promote capacity building and disseminate best practices and lessons learned in the member countries in access to skilled health personnel attendance during childbirth. To prevent low birth weight among newborns and reduce malnutrition and micronutrient deficiency member countries need to develop programs and policies to prevent women from becoming smokers and encouraging those who do smoke to quit with a view to eliminating one of the main causes of LBW; improve public health programs and services to provide education and resources to women of child bearing age to promote healthy nutrition prior to conception and during pregnancy;

intensifying collaboration between high income and low income OIC countries to reduce undernutrition and micronutrient deficiencies in children through programs offering nutritional support to low-income expectant mothers and infants. Vaccination is another area of concern in many member countries and there is a dire need for increasing the involvement of community in vaccination related activities by designing education activities as well as financial or other incentives; reducing out-of-pocket costs; home-visiting and school-based interventions.

Thematic area 4 focuses at medicines and vaccines manufacturing, monitoring and evaluation mechanisms and promotion of research and development (R&D) and innovation in health-related fields in OIC member countries. In this regard, it recommends several actions and activities both at nation and intra-OIC cooperation level to improve investment climate by simplifying the requirements for doing business in pharmaceutical and other medical products industry without making any concessions to quality; facilitate relevant transfer of technology and knowledge for production in member states in close collaboration with other governments, international organizations, foreign companies and local enterprises; build and/or supporting the establishment of proper R&D facilities to develop innovative pharmaceutical industry and medical technologies; engaging national Diaspora through incentive schemes and converting the brain drain of skilled labour into brain gain; encourage and facilitate the cooperation among the member countries with a view to sharing; knowledge and expertise for the development of health technology and pharmaceutical industry; and promotion of linkages and networks among member countries in R&D with the aim to promote learning and accumulation of technological capabilities. Increasing the availability of essential medicines, vaccines and medical technologies is another major area of emphasis under this theme. To this end, member countries are recommended to target increasing the utilization of health technology assessment of medical device and in vitro diagnostics in order to achieve the cost efficiency and implement regulations to prevent high mark-ups; strengthen national regulatory authority to ensure the quality, safety and efficacy of all medical products including vaccines, medicines and devices; and work togather to develop an OIC regional pooled procurement mechanism which will enable local production to meet regional needs and allow for the mutual cooperation in increasing the availability of essential medicines , vaccines and medical devices.

Thematic area 5 covers the health response and interventions during the emergencies and disasters both natural and manmade. It focuses at strategic planning for preparedness and response and enhancing coordination of emergency health services; preventing and controlling diseases outbreaks; and information collection and dissemination for effective delivery of health services during the emergencies. To do so, member countries are recommended to develop all hazards national policies and programmes on risk reduction and emergency preparedness in the health sector and formulate emergency response regulations of public health emergencies based on real time risk assessment; encourage the synergy of Public-Private Partnership for community empowerment in the field of disaster management from policy to practice; improve knowledge and skills in risk reduction and

emergency preparedness and response in the health sector through sharing experiences and best practices; conduct early epidemiological assessment of the affected population for different age groups and gender; establish regional early warning and response mechanisms to prevent cross-border disease outbreaks; set up emergency supply chain systems, including procurement, storage and distribution of drugs and medical supplies; and promote intra-OIC level adherence of standards and best practices in emergency health services. Information management and analysis is one of the most crucial aspects of an efficient and effective health response during the emergencies. In this regard, member countries are recommended to establish a centralized health information system for timely reporting of deaths, diseases, emergency health logistics and other emergency health issues; conduct systematic analysis of compiled data to generate information for planning, organisation, evaluation, and advocacy purposes; establish capacity building networks among the relevant institutions in other member countries with a view to sharing, transfer and exchange of knowledge and expertise; and enhance cooperation at intra-OIC level to improve information management and data analysis related to emergency health relief surveillance.

Thematic area 6 covers the health information, research, education and advocacy related issues in OIC member countries. In this regard, it proposes several actions both at national and OIC level under three programmes of actions. Involvement and commitment of all stakeholders is very crucial to initiate and implement effective community health information, education and advocacy programmes. To do so, member countries are recommended to organize conventions of local health care providers, community leaders and local people to make community health information and promotion interventions more culturally relevant and responsive; create public-private partnership and involve civil society, NGOs and international organizations to address the issues related with financing and outreach of national disease prevention and health promotion programmes; launch country wide school health program to promote awareness among youth especially about risk behaviours like inadequate physical activity, poor nutrition, hygiene and tobacco use etc.; and enhance intra-OIC level cooperation to harmonise health information, education, and advocacy practices with the international standards by implementing the guidelines provided by international health agencies. Another major challenge across the developing world is the information and education deficiencies of health workers. To this end, thematic area recommends following actions and activities: support the maintenance and development of professional competencies through continuing education to ensure health professionals are equipped to provide the best care and information possible; monitor and supervise the performance of health care providers by using quality improvement approaches and promote the practices that prove effective; link health professionals OIC wide through virtual communities of practice so they can inform effective policies and promote successful practices; and establish a network of OIC health centres of excellence to promote harmonisation of health care education and practices across the OIC member countries.

# 5 Concluding Remarks and Policy Recommendations

Over the years, many OIC member countries witnessed significant improvement in health care coverage. As a result, mortality rates both for adults and children, have witnessed declining trends and life expectancy at birth has been improved. However, despite these positive trends, OIC member countries are still lagging behind the world and developing countries averages. The health care coverage situation remained significantly poor in member countries located in South Asia and Sub-Saharan Africa region mainly due to the lack of adequate and sustainable financial resource, poor health infrastructure, insufficient trained health workforce and slow progress on health reforms. The nature and magnitude of these key challenges faced by the health sector in many OIC member countries require a greater commitment from the governments to put health sector higher on the national development agendas and build health infrastructure and train workforce to meet the current and future demands for the health services. In addition, OIC member countries need to emphasize the compliance with international health regulations to ensure safe and secure health care services for their citizens.

In this section, some policy recommendations are made with a view to overcoming the major challenges faced by the health sector in OIC member countries:

## 5.1 Health Financing

Health financing is a critical component of health care systems. Globally, health care is financed by a mixture of tax-based financing, social health insurance, private health insurance, out-of-pocket health spending and external contributions (aid and donations etc). The relative share of these sources in total health expenditures has many implications for access, equity and financial sustainability of health care services in a country.

Majority of the OIC member countries rely heavily on out-of-pocket expenditure to finance health services whereas the share of social security and private health insurance in total health expenditures remained comparatively very low. This has been one of the major obstacles to provide health services to the low income poor groups of the society in the OIC region.

Keeping in view this state of affairs, governments in OIC member countries need to consider following measures to facilitate the accessibility of health care services to all:

- Reform health financing system to enable wider access. The reforms require continued increasing investment and public spending on health, reducing out-of-pocket spending and increasing pre-payment and risk-pooling, which may include tax-based financing, compulsory social insurance and other types of health insurance.
- Increase the budgetary allocations for health sector and establish an accountability mechanism to ensure transparent and efficient use of these funds.
- Take necessary measures to facilitate Intra-OIC investment in health sector.
- Collaborate with international agencies like WHO, UNICEF and World Bank to benefit from their expertise and financial contribution to build health infrastructure.
- Start prepayment and risk pooling based health financing schemes like Seguro Popular in Mexico, New Rural Cooperative Medical Scheme in China and Social Health Insurance Scheme in Mali to overcome financial barriers to health care access especially in rural areas (WHO Countdown Report, 2000-2010).

## 5.2 Preparing Health Workforce

Health workers are broadly defined as people who are engaged in activities to protect and improve the health of their communities. Demographic and epidemiological changes, introduction of new technologies and initiation of new treatment methods all contribute to the growing need to deal with the status, performance and problems of health workers. Many countries around the world lack the sufficient health service providers including doctors, nurses and midwives. It is not only health service providers who are in short supply – shortfalls exist in all categories of health workers including laboratory technicians, pharmacists, logisticians and managers. The World Health Organisation estimates that there is a global shortage of 4.3 million health workers – with Sub-Saharan Africa worst affected.

The OIC countries in particular face considerable challenges with respect to the *quantity*, *diversity* and *competency* of the health workforce. Health workforce shortages are especially serious in member countries located in South Asia and Sub-Saharan Africa region. During the period 2000-2010, the number of health workers per 10,000 people in these two regions was, on average, below the 23 threshold level for considering a country/region to be facing a health workforce crisis. Inadequate salaries, lack of incentives and supervision affect the performance, motivation and retention of health workers. As a result, the fewest health workers are usually found where health needs are the greatest. The shortage of health workers is also among the most significant constraints to achieving the three health-related Millennium Development Goals (MDGs): reducing child mortality, improving maternal health, and combating HIV/AIDS and other diseases, such as tuberculosis and malaria.

In this respect, number of people to be trained, diversity of workforce to be prepared in proportion to demographic and socio-cultural characteristics of population and capability of health workers to be developed when performing tasks assigned to each health worker requires a comprehensive assessment. Table 5.1 depicts the driving forces and challenges in maintaining adequate number, diversity and competencies of the health workforce.

**Quantity dimension:** One of the most important challenges for health systems is to create and sustain an effective workforce for the delivery of health care. Insufficient health workforce in the OIC countries indicates low level of healthcare capacity and services, a threat which necessitates encouraging development of more adequate human capital in the fields of medicine and healthcare. Of the 57 countries with a critical shortage of health workers, 30 are OIC member countries. In this respect, strategies should be developed to improve the training opportunities and increase the number of health workforce. Proper strategies can be developed only if the problems are accurately identified.

## Table 5.1: Challenges to Health Workforce Production

| Drivers influencing workforce composition | Challenges | | Possible actions | Desired impact on workforce production |
|---|---|---|---|---|
| **Health needs**<br>Demographics<br>Disease burden<br>Epidemics | Numbers | Limited Shortages | - Increase class size<br>- Shorten training time | Appropriate numbers |
| | | Widespread shortages | - Develop new institutions<br>- Increase regional cooperation | |
| **Health systems**<br>Financing<br>Technology<br>Consumer preferences | Diversity | Misdistribution | - Select from underserved areas<br>- Locate training in underserved areas | Enhanced diversity |
| | | Homogeneity | - Outreach to minorities to apply<br>- Retention efforts during training | |
| **Context**<br>Labour and education<br>Public sector reforms<br>Globalization | Competency | Missing | - New institutions, cadres<br>- Regional, international networks | Competencies ensured |
| | | Ineffective | - Evaluation and certification<br>- Accreditation, licensure | |

*Source:* The World Health Report 2006, WHO.

**Diversity dimension:** The growing diversity of patient populations and increasing awareness of the importance of socio-cultural and linguistic issues in providing health care have brought new attention to imbalances in the admissions processes. The profiles of students entering health professions rarely reflect national profiles of social, linguistic and ethnic diversity, as students are disproportionately admitted from the higher social classes and dominant ethnic groups in society (WHO, 2006). In response to these problems, strategies to increase diversity should include admission quotas, specialized programmes for under-represented students in secondary schools, outreach to those who might not consider health professional training to be an option and expanded selection criteria to offer admission to students with personal attributes that make them well suited to providing health services.

**Competency dimension:** Many factors interact to affect the quality of health care. The structure of the health care system, educational opportunities for health practitioners, the administrative system, the pace of change, economic conditions and the technology available may influence the ability of the existing workforce to acquire new skills and implement them in practice (Woodward and Psych, 2000). Thus, a comprehensive strategy is needed if the quality of the overall system is to improve, including the development of indicators to measure progress.

In order to overcome shortage of well-trained efficient health workforce, OIC member countries need to focus on following policy actions:

- Establish a health service commission for training, recruitment and management of health workforce both at national and Intra-OIC level.
- Enhance cooperation both at national and Intra-OIC level, to increase investment in health education and training institutions.
- Launch scholarship programs to attract more students in health professions.
- Ensure mutual recognition of medical diplomas, certificates and degrees.
- Take necessary measures to integrate teaching and learning with clinical practice.
- Motivate the health workers through financial and non-financial incentives to work in underserved rural and remote areas.
- Collaborate with NGOs and international bodies to train and deploy health workers at community level (like community midwives in Indonesia and Leady Health Visitor (LHV) program in Pakistan) to provide especially MNH services in rural areas.

## 5.3 Improving Infrastructure

Every day, millions of people receive some sort of health care to maintain or restore their health and ability to function. However, far too many do not. Quality problems are generally reflected in a wide variation in the use of health care services, underuse of some services,

overuse of other services, and misuse of services. This section concentrates on improving infrastructure of health care provision through better sanitation and water sources, hospitals and development of e-health system.

### 5.3.1 Water Sources and Sanitation

The importance of water, sanitation and hygiene (WASH) for health and development has been widely acknowledged, but there are considerable risks and threats in preservation and provision of these services. Global driving forces, including population growth, urbanization and climate change, are expected to affect significantly the availability and quality of access to water and sanitation services and of freshwater resources. Water resources development needed also for other purposes that carry in themselves potential health risks. Millions of people are exposed to dangerous levels of biological contaminants and chemical pollutants in their drinking-water partly due to inadequate management of urban, industrial or agricultural wastewater. Notwithstanding these developments, almost two billion people over the last decade were victims of natural disasters, including floods and droughts, which act as key contributors to sanitation- and water-related diseases. Therefore, there is an urgent need for improving access to water and sanitation services to improve health and safeguard it against potential disasters.

In this respect, following recommendations can be made for the due consideration of policy makers in OIC member countries:

- In coordination with appropriate authorities and stakeholders, efficient systems for assessing water quality must be established, implemented and maintained.
- It is important for authorities to provide appropriate facilities for access to safe drinking-water, sanitation and hand washing with soap in health care establishments, schools and other public buildings and settings.
- Promotion and training tools on safe water, sanitation and hygiene practices are required, especially for those who operate and use these establishments.
- There are also considerable disparities between urban and rural areas with respect to access to drinking water at home as well as from other improved sources, improved sanitation facilities and hygiene. Member countries must prioritize and implement strategies to reduce these disparities, preferably in consultation with bilateral and multilateral partners and in close coordination with responsible local authorities. Providing adequate sanitation will have profound implications for human health and poverty alleviation.

### 5.3.2 Hospitals

Hospitals are institutions for health care providing patient treatment by specialized staff and equipment. Due to lack of qualified staff, equipment and infrastructure, many developing countries are not able to provide basic health services. In such cases, improving hospital infrastructure through rehabilitation, reconstruction and installation of water systems, sanitation and electricity is required to improve the people's health condition and revitalize

primary healthcare. In this regard, it is essential to regularly assess the situation of hospital infrastructure to improve service delivery. Hospitals in low-income countries in general suffer from similar constraints and these include:

- Inadequate medicines, supplies and equipment
- Lack of referral system for recommending higher levels of care, which results in late presentation of patients and increased death and disability
- Lack of essential support services including blood banking, laboratory services and pharmacy
- Shortage of facilities required for health service delivery including piped water and sanitation systems, regular electricity supply, and means for the safe disposal of health care waste
- Poor infrastructure resulting in, amongst other concerns, poor infection control

The capacity of a health care system is often measured by the number of hospitals or hospital beds. This interpretation may be misleading, because a more comprehensive assessment requires knowledge of how many patients are admitted to hospital, how long they stay and how intensively the bed stock is used. What matters at the end of the day is a quality and efficiency of health service. Hospital managements should respond to the needs of patients timely and efficiently. The changing population structure, patterns of diseases, consumer expectations and opportunities for medical intervention with new knowledge and technology put pressures on hospitals to transform. Certain flexibility should always be present to adapt to changing conditions.

### 5.3.3 e-Health

e-Health can simply be defined as the use of information and communication technologies for health. It allows improving the quality of treatment and broadening access to medical care through clinical communications between healthcare providers such as online referrals, electronic prescribing and sharing of electronic health records. It can also provide access to information databases, knowledge resources and decision support tools to guide service delivery. e-Health helps consumers to receive safer, better coordinated and more accessible care as a result of the improved accuracy, completeness and accessibility of personal health information and the ability to gain remote access to care delivery services. Similarly, care providers can make more informed decisions at the point of care as a result of better access to accurate and complete consumer health information, the support of relevant decision support tools and access to an improved evidence base for treatment decisions.

Developed countries have already made significant progress in introducing e-Health systems, but many developing countries still remain at the starting phase. However, it has often been argued that e-Health would be an imprudent investment for developing countries when essential needs like water and sanitation, housing, food and basic education are not being met. The possibility of investing limited resources in complicated equipment to the detriment of more productive approaches for development of human capital and

improving performance of health systems have created concerns especially for low-income countries.

Therefore, for the developing countries, the greatest challenge is perhaps to generate evidence that e-Health can improve health system performance, help build human capital for health, improve access to knowledge, support decision making and lead to better outcomes for patients.

Given the importance of e-Health, following broad recommendations can be made for the consideration of member countries:

- Prudently assess the feasibility of introducing e-Health system and prioritize their investment decisions.
- Upon the verification, public-private partnerships can be utilized in moving forward to build infrastructure and to advance specific e-Health programmes. This approach is a way to overcome funding constraints by attracting funding or in-kind support for e-Health development.

## 5.4 Health Reforms

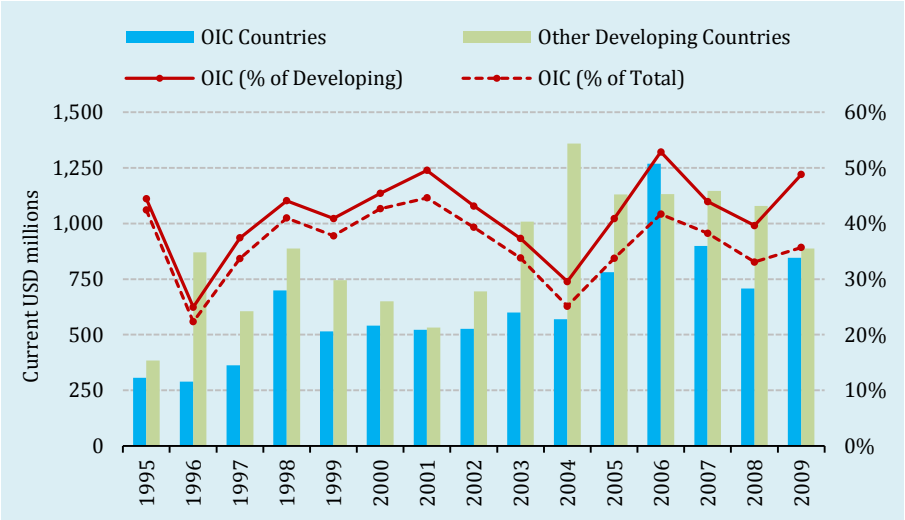
Although their direct impact on health status is not visible in the short-run, health reforms primarily aim at more equitable health finance, development of health insurance, decentralization of health systems, and regulation or engagement of the private health sector. The importance of ensuring health equity through health reforms in the OIC member countries was emphasized by the 2nd ICHM in 2009. The current World Health Report (WHO, 2011b) focuses on the ways to eliminate inequalities in access to health services through developing effective health finance systems.

Health reforms are distinct from efforts to improve outcomes by increasing inputs – money, training, salaries, facilities, and materials – although increasing inputs can be, and has been, used to leverage and support reforms. Thus, obstacles outlined through sections 3.1-3.4 should not be considered as outcomes of but facilitators for successful health reforms in OIC member countries. Although there is no a priori international consensus on how a health system should operate, reform programmes address the needs for fundamental changes in health system structure, incentives and allocation of resources. Improved efficiency of health services access, together with enhancements in health status and reduction of imbalances in health care delivery, is often at the core of health reform programs.

Implementation of the guaranteed benefits of a health reform is very much dependant on the sufficiency of funds to maintain the momentum of reforms. Development Assistance for Health (DAH), in this regard, defines two channels for health aid flow and *general health* title, as one of them, covers mainly flows to reform-oriented activities such as health sector policy, planning and programmes; education, training and research; as well as non-basic health services. Figure 5.1 reveals that OIC member countries benefit from a large portion of aid flow aiming at health sector development. Despite a remarkable decrease, during 2006-2008, in the share of OIC countries in total aid flows to the developing countries for health sector

development, a considerable increase in the volume of flows to OIC countries accompanied by a sharp decrease in flows to other developing countries in 2009 helped this value converge to its 2006 levels.

**Figure 5.1:** DAH Allocations for Health Sector Development




*Source:* OECD CRS Online Database

The efficient allocation of these sources to the sector reforms should be the utmost concern as the effects of health sector infancy is still reflected in poor reform outcomes and resultant inequalities in health finance and suboptimal blend of public and private stakeholders. Poor public governance figures presented in the previous section, on the other hand, introduces another challenge for the appropriate use of these resources.

Public Sector Reform (IEG, 2008), on the other hand, identifies six factors associated with comparatively successful administrative reforms: good analysis and diagnosis; pragmatic opportunism in selecting reforms; realistic expectations; appropriate lending packages (usually including technical assistance); tangible indicators of success; and effective donor coordination. Successful major health reform programs, as in many OIC countries, feature similar characteristics.

The reform attempts of the last decade gave considerable food for thought to the policymakers in OIC member countries about the successes and pitfalls of support for health reforms:

- The participation of all stakeholders is important for ownership and, thus success, of reforms.
- Reforms endorsed by a prior analytic work hold a greater chance of success.
- Well-reasoned ordering of reform elements can enhance ownership by political economy, reduce uncertainty about and complexity of reforms, ensure adequate capacity and facilitate learning from reform process.
- Monitoring and evaluation are critical to the success of health reforms. Therefore, development of an effective and transparent national evaluation mechanism is of paramount importance.

## 5.5 Complying with International Health Regulations

The International Health Regulations ('IHR' or 'Regulations' hereafter), of which revised version (i.e. IHR (2005)) entered into force on 15 June 2007 and are binding on 194 countries; require countries to report certain disease outbreaks and public health events to World Health Organization (WHO). In the globalized world, diseases can spread far and wide via international travel and trade. Particularly for OIC countries with relatively poor access to health services, the spread of diseases can cause severe health crises and heavily impact livelihoods. Complying with the precautionary Regulations, in this regard, is of critical importance for improving health status in the OIC member countries.

The First and Second ICHM in 2007 and 2009, respectively, drew attention to the need for successful implementation of the Regulations and urged member countries to develop, strengthen and maintain the *core capacities for surveillance and response* by mobilizing domestic as well as external resources and expertise.

The IHR monitoring framework defines the eight types of core capacity for tracking implementation: (1) national legislation, policy and financing; (2) coordination at national level and the communication of National IHR Focal Points, both globally and nationally; (3) surveillance; (4) response; (5) preparedness; (6) appropriate communication of risks; (7) human resources; and (8) adequate laboratory services. For each type of capacity, progress is monitored by measuring specific achievements over time in respect of defined attributes. Although the progress made in these capacities is not easily accessible at the country level, WHO evaluates the implementation status through self-assessment questionnaires. The results from the February 2010 questionnaire show that 68 per cent of reporting state parties had assessed their core capacities for IHR implementation, while 58 per cent had developed national plans to meet these capacities (WHO, 2011a). However, more than half of the reporting state parties are still at the foundation level, exhibiting poor adherence to the Regulations.

The outcomes of national IHR focal point meetings are helpful in understanding potential challenges ahead of IHR-bound state parties, including OIC member countries. High turnover of health personnel, limited multi-sectoral collaboration, insufficient logistics and transport services for rapid response personnel to reach remote areas, poor awareness among public as well as health care providers for development of early warning systems, among others, pose difficulties to the implementation of the Regulations. Besides these, another potential compliance problem can emerge with regard to those core capacities over which federal OIC governments may not have explicit jurisdiction (Wilson et al, 2008). For example, surveillance powers may fall to the regional (such as state, province or governorate) level of government in federal OIC countries. To address this issue, a combination of strategies based on specific circumstances will have to be developed.

For a more effective IHR implementation, OIC member countries should consider following policy actions:

- Dedicate resources, technical and financial, to strengthen core capacities.
- IHR committees/task forces with broad representation of related agencies should also be constructed both at national and Intra-OIC level..
- Moreover, mobilization of legal expertise among member countries to develop a new or improve existing legislation in the context of IHR (2005) is also core to achievement of IHR implementation goals.

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**Table A.1:** Antenatal Care Coverage and Births Attended by Skilled Personnel

| | ANCC (%), 2000-2011 | | Birth Attendance (%) |
|---|---|---|---|
| | At least 1 visit | At least 4 visits | 2005-2011 |
| Afghanistan | 45.5 | 14.6 | 36.3 |
| Albania | 97.3 | 66.8 | 99.3 |
| Algeria | 89.4 | | 95.2 |
| Azerbaijan | 76.9 | 45.2 | 88.6 |
| Bahrain | 100 | 100 | 97.3 |
| Bangladesh | 49.8 | 25.5 | 31.1 |
| Benin | 85.8 | 60.5 | 84.1 |
| Brunei Darussalam | 100 | 100 | 9.7 |
| Burkina Faso | 94.9 | 33.7 | 67.1 |
| Cameroon | 84.7 | | 63.6 |
| Chad | 42.6 | 23.1 | |
| Comoros | | | 16.6 |
| Côte d'Ivoire | 90.6 | 45.3 | 59.4 |
| Djibouti | 81 | | 78.4 |
| Egypt | 73.6 | 66 | 78.9 |
| Gabon | | | |
| Gambia | 96.9 | 72 | 56.1 |
| Guinea | 88.4 | 50.3 | 46.1 |
| Guinea-Bissau | 93 | 70 | 44 |
| Guyana | 85.7 | 78.5 | 87.4 |
| Indonesia | 93.3 | 81.5 | 79.8 |
| Iran | 98 | 94 | 97 |
| Iraq | 83.8 | | 88.5 |
| Jordan | 98.8 | 94.1 | 99.1 |
| Kazakhstan | 98 | | 99.4 |
| Kuwait | | | 98.6 |
| Kyrgyzstan | 96.6 | | 98.3 |
| Lebanon | | | |
| Libya | 93.1 | | 98.3 |
| Malaysia | 83.4 | | 98.6 |
| Maldives | 99.2 | 85.1 | 94.8 |
| Mali | 70.4 | 35.4 | 49 |
| Mauritania | 72.3 | | 57.1 |
| Morocco | 77.1 | 63.9 | 73.6 |
| Mozambique | 90.6 | | 54.3 |
| Niger | 46.1 | 14.9 | 17.7 |
| Nigeria | 52.9 | 44.8 | 34.4 |
| Oman | 99.4 | 85.3 | 98.6 |
| Pakistan | 64 | 28.4 | 45 |
| Palestine | | | |
| Qatar | 91 | | 100 |
| Saudi Arabia | 98 | | 100 |
| Senegal | 93.3 | 50 | 65.1 |
| Sierra Leone | 91.1 | 74.7 | 60.8 |
| Somalia | 22 | 6.3 | 9.4 |
| Sudan | | | |
| Suriname | 88.6 | | 86.5 |
| Syria | 87.7 | | 96.2 |
| Tajikistan | 88.8 | 49.4 | 88.4 |
| Togo | 50.7 | 54.9 | 43.9 |
| Tunisia | 96 | 67.5 | 94.6 |
| Turkey | 92 | 73.7 | 91.3 |
| Turkmenistan | 99 | | 99.5 |
| Uganda | 94.9 | 47.6 | 58 |
| United Arab Emirates | 100 | | 100 |
| Uzbekistan | 98.7 | | 99.6 |
| Yemen | 47 | | 35.7 |
| **OIC Countries** | **73** | **49** | **59** |
| **Other Developing Countries** | **84** | **55** | **72** |
| **Developed Countries** | **99** | **96** | **99** |
| **World** | **80** | **56** | **70** |

*Source:* WHO, Global Health Observatory Data Repository, Sep. 2013.

**Table A.2:** Low Birth Weight New-borns and Infants Exclusively Breastfed [for the first 6 months]

| | Low Birth Weight Newborns (%) | Infants Exclusively Breastfed (%) | | Low Birth Weight Newborns (%) | Infants Exclusively Breastfed (%) |
|---|---|---|---|---|---|
| | **2000–2010** | **2000–2011** | | **2000–2010** | **2000–2011** |
| **Afghanistan** | ... | | **Maldives** | 22 | 48 |
| **Albania** | 7 | 39 | **Mali** | 19 | 34 |
| **Algeria** | 6 | 7 | **Mauritania** | 34 | 19 |
| **Azerbaijan** | 10 | 12 | **Morocco** | 15 | 15 |
| **Bahrain** | ... | | **Mozambique** | 15 | 41.1 |
| **Bangladesh** | 22 | 63.5 | **Niger** | 27 | 10 |
| **Benin** | 15 | 33 | **Nigeria** | 12 | 15.1 |
| **Brunei Darussalam** | ... | | **Oman** | 9 | |
| **Burkina Faso** | 16 | 24.8 | **Pakistan** | 32 | 37 |
| **Cameroon** | 11 | 20 | **Qatar** | ... | |
| **Chad** | 22 | 3 | **Saudi Arabia** | ... | |
| **Comoros** | 25 | | **Senegal** | 19 | 39 |
| **Côte d'Ivoire** | 17 | 12.1 | **Sierra Leone** | 14 | 32 |
| **Djibouti** | 10 | 1 | **Somalia** | ... | 5 |
| **Egypt** | 13 | 53 | **Sudan** | ... | 41 |
| **Gabon** | 14 | | **Suriname** | 11 | 2 |
| **Gambia** | 20 | 36 | **Syria** | 9 | 29 |
| **Guinea** | 12 | 20.5 | **Tajikistan** | 10 | 25 |
| **Guinea-Bissau** | 24 | 38 | **Togo** | 12 | 62 |
| **Guyana** | 19 | 33 | **Tunisia** | 5 | 9 |
| **Indonesia** | 9 | 32 | **Turkey** | 11 | 42 |
| **Iran** | 7 | 28 | **Turkmenistan** | 4 | 11 |
| **Iraq** | 15 | 19.6 | **Uganda** | 14 | 63.2 |
| **Jordan** | 13 | 22 | **United Arab Emirates** | ... | |
| **Kazakhstan** | 6 | 31.8 | **Uzbekistan** | 5 | 26 |
| **Kuwait** | ... | | **Yemen** | ... | |
| **Kyrgyzstan** | 5 | 32 | **OIC Countries** | **14** | **32** |
| **Lebanon** | 6 | 17 | **Other Developing Countries** | **15** | **44** |
| **Libya** | ... | | **Developed Countries** | **5** | **18** |
| **Malaysia** | 11 | | **World** | **14** | **38** |

*Source:* WHO, Global Health Observatory Data Repository, Sep. 2013.

**Table A.3:** Immunization Coverage among 1-year-olds (%)

| | Measles | | DTP3 | | BCG | | Polio | |
|---|---|---|---|---|---|---|---|---|
| | **2000** | **2011** | **2000** | **2011** | **2000** | **2010** | **2000** | **2011** |
| **Afghanistan** | 27 | 62 | 24 | 66 | 30 | 68 | 24 | 66 |
| **Albania** | 95 | 99 | 97 | 99 | 93 | 99 | 97 | 99 |
| **Algeria** | 80 | 95 | 86 | 95 | 97 | 99 | 86 | 95 |
| **Azerbaijan** | 67 | 67 | 75 | 74 | 81 | 82 | 76 | 80 |
| **Bahrain** | 98 | 99 | 97 | 99 | | | 97 | 99 |
| **Bangladesh** | 72 | 96 | 83 | 96 | 95 | 95 | 84 | 96 |
| **Benin** | 70 | 72 | 78 | 85 | 92 | 97 | 78 | 85 |
| **Brunei Darussalam** | 99 | 91 | 99 | 97 | 99 | 96 | 99 | 99 |
| **Burkina Faso** | 59 | 63 | 63 | 91 | 80 | 99 | 64 | 90 |
| **Cameroon** | 49 | 49 | 62 | 66 | 78 | 80 | 57 | 67 |
| **Chad** | 28 | 76 | 36 | 22 | 49 | 53 | 30 | 31 |
| **Comoros** | 70 | 28 | 70 | 83 | 90 | 76 | 70 | 85 |
| **Côte d'Ivoire** | | 72 | 65 | 62 | 80 | 74 | 66 | 58 |
| **Djibouti** | 50 | 84 | 46 | 87 | 34 | 89 | 46 | 87 |
| **Egypt** | 98 | 96 | 98 | 96 | 98 | 98 | 98 | 96 |
| **Gabon** | 55 | 55 | 45 | 45 | 89 | 89 | 44 | 44 |
| **Gambia** | 89 | 91 | 86 | 96 | 99 | 90 | 84 | 95 |
| **Guinea** | 42 | 58 | 47 | 59 | 81 | 93 | 47 | 57 |
| **Guinea-Bissau** | 71 | 61 | 49 | 76 | 77 | 93 | 52 | 73 |
| **Guyana** | 86 | 98 | 88 | 93 | 93 | 97 | 79 | 93 |
| **Indonesia** | 74 | 89 | 71 | 63 | 80 | 82 | 75 | 70 |
| **Iran** | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 |
| **Iraq** | 87 | 76 | 78 | 77 | 93 | 92 | 84 | 78 |
| **Jordan** | 94 | 98 | 91 | 98 | | 95 | 94 | 98 |
| **Kazakhstan** | 99 | 99 | 97 | 99 | 98 | 96 | 96 | 99 |
| **Kuwait** | 99 | 99 | 98 | 99 | | 99 | 94 | 99 |
| **Kyrgyzstan** | 98 | 97 | 99 | 96 | 96 | 98 | 99 | 94 |
| **Lebanon** | 71 | 79 | 83 | 81 | | | 83 | 75 |
| **Libya** | 93 | 98 | 94 | 98 | 98 | 99 | 94 | 98 |
| **Malaysia** | 88 | 95 | 95 | 99 | 99 | 99 | 95 | 99 |
| **Maldives** | 99 | 96 | 98 | 96 | 99 | 98 | 98 | 96 |
| **Mali** | 49 | 56 | 43 | 72 | 69 | 89 | 53 | 71 |
| **Mauritania** | 62 | 67 | 53 | 75 | 75 | 86 | 61 | 73 |
| **Morocco** | 93 | 95 | 95 | 99 | 97 | 99 | 95 | 98 |
| **Mozambique** | 71 | 82 | 70 | 76 | 84 | 91 | 69 | 73 |
| **Niger** | 37 | 76 | 34 | 75 | 50 | 61 | 41 | 44 |
| **Nigeria** | 33 | 71 | 29 | 47 | 41 | 64 | 26 | 73 |
| **Oman** | 99 | 99 | 99 | 99 | 98 | 99 | 99 | 99 |
| **Pakistan** | 59 | 80 | 62 | 80 | 74 | 85 | 65 | 75 |
| **Qatar** | 91 | 99 | 80 | 93 | 99 | 97 | 91 | 93 |
| **Saudi Arabia** | 94 | 98 | 95 | 98 | 94 | 98 | 95 | 98 |
| **Senegal** | 48 | 82 | 52 | 83 | 89 | 95 | 49 | 73 |
| **Sierra Leone** | 37 | 80 | 44 | 84 | 74 | 96 | 46 | 81 |
| **Somalia** | 24 | 46 | 33 | 41 | 69 | 41 | 37 | 49 |
| **Sudan** | 58 | 87 | 62 | 93 | 56 | 92 | 62 | 93 |
| **Suriname** | 84 | 85 | 71 | 86 | | | 70 | 86 |
| **Syria** | 84 | 80 | 84 | 72 | 91 | 90 | 86 | 75 |
| **Tajikistan** | 88 | 98 | 83 | 96 | 98 | 97 | 86 | 97 |
| **Togo** | 58 | 67 | 64 | 81 | 84 | 90 | 63 | 81 |
| **Tunisia** | 95 | 96 | 97 | 98 | 95 | 98 | 97 | 98 |
| **Turkey** | 87 | 97 | 85 | 97 | 96 | 97 | 85 | 97 |
| **Turkmenistan** | 96 | 99 | 97 | 97 | 99 | 98 | 98 | 97 |
| **Uganda** | 57 | 75 | 52 | 82 | 82 | 86 | 55 | 82 |
| **United Arab Emirates** | 94 | 94 | 94 | 94 | 98 | 98 | 94 | 94 |
| **Uzbekistan** | 99 | 99 | 99 | 99 | 98 | 99 | 99 | 99 |
| **Yemen** | 71 | 71 | 76 | 81 | 82 | 59 | 76 | 81 |
| **OIC Countries** | **65** | **80** | **67** | **77** | **76** | **87** | **68** | **75** |
| **Other Developing Countries** | **72** | **85** | **75** | **84** | **81** | **91** | **75** | **83** |
| **Developed Countries** | **90** | **92** | **92** | **96** | **14** | **17** | **93** | **95** |
| **World** | **71** | **84** | **74** | **83** | **74** | **83** | **75** | **82** |

*Source:* WHO, Global Health Observatory Data Repository, Sep. 2013.

**Table A.4:** Infant Mortality Rate (IMR), Maternal Mortality Rate (MMR) and Under-Five Mortality Rate (U5MR)

| | IMR per 1000 live births | | | MMR per 100000 live births | | | U5MR per 1000 live births | | |
|---|---|---|---|---|---|---|---|---|---|
| | **1990** | **2000** | **2010** | **1990** | **2000** | **2010** | **1990** | **2000** | **2010** |
| **Afghanistan** | 129 | 95 | 73 | 1300 | 1000 | 460 | 192 | 136 | 101 |
| **Albania** | 36 | 23 | 13 | 48 | 39 | 27 | 41 | 26 | 14 |
| **Algeria** | 54 | 39 | 26 | 220 | 140 | 97 | 66 | 46 | 30 |
| **Azerbaijan** | 75 | 57 | 39 | 56 | 65 | 43 | 95 | 69 | 45 |
| **Bahrain** | 18 | 11 | 9 | 23 | 22 | 20 | 21 | 12 | 10 |
| **Bangladesh** | 97 | 62 | 37 | 800 | 400 | 240 | 139 | 84 | 46 |
| **Benin** | 107 | 87 | 68 | 770 | 530 | 350 | 177 | 140 | 106 |
| **Brunei Darussalam** | 9 | 7 | 6 | 29 | 24 | 24 | 12 | 10 | 7 |
| **Burkina Faso** | 105 | 95 | 82 | 700 | 450 | 300 | 208 | 182 | 146 |
| **Cameroon** | 90 | 86 | 79 | 670 | 730 | 690 | 145 | 140 | 127 |
| **Chad** | 113 | 105 | 97 | 920 | 1100 | 1100 | 208 | 189 | 169 |
| **Comoros** | 86 | 72 | 59 | 440 | 340 | 280 | 122 | 100 | 79 |
| **Côte d'Ivoire** | 104 | 95 | 81 | 710 | 590 | 400 | 151 | 139 | 115 |
| **Djibouti** | 94 | 83 | 72 | 290 | 290 | 200 | 122 | 106 | 90 |
| **Egypt** | 63 | 36 | 18 | 230 | 100 | 66 | 86 | 44 | 21 |
| **Gabon** | 69 | 60 | 49 | 270 | 270 | 230 | 94 | 82 | 66 |
| **Gambia** | 78 | 67 | 58 | 700 | 520 | 360 | 165 | 130 | 101 |
| **Guinea** | 135 | 105 | 79 | 1200 | 970 | 610 | 228 | 175 | 126 |
| **Guinea-Bissau** | 125 | 111 | 98 | 1100 | 970 | 790 | 210 | 186 | 161 |
| **Guyana** | 48 | 39 | 29 | 180 | 220 | 280 | 63 | 49 | 36 |
| **Indonesia** | 54 | 38 | 25 | 600 | 340 | 220 | 82 | 53 | 32 |
| **Iran** | 47 | 35 | 21 | 120 | 48 | 21 | 61 | 44 | 25 |
| **Iraq** | 37 | 34 | 31 | 89 | 78 | 63 | 46 | 43 | 38 |
| **Jordan** | 31 | 24 | 18 | 110 | 79 | 63 | 37 | 28 | 21 |
| **Kazakhstan** | 48 | 37 | 25 | 92 | 70 | 51 | 57 | 42 | 28 |
| **Kuwait** | 14 | 11 | 9 | 11 | 9 | 14 | 17 | 13 | 11 |
| **Kyrgyzstan** | 58 | 41 | 27 | 73 | 82 | 71 | 70 | 47 | 31 |
| **Lebanon** | 27 | 16 | 8 | 52 | 38 | 25 | 33 | 19 | 9 |
| **Libya** | 33 | 22 | 13 | 99 | 67 | 58 | 44 | 27 | 16 |
| **Malaysia** | 15 | 9 | 6 | 53 | 39 | 29 | 17 | 11 | 7 |
| **Maldives** | 76 | 41 | 9 | 830 | 190 | 60 | 105 | 53 | 11 |
| **Mali** | 132 | 114 | 98 | 1100 | 740 | 540 | 257 | 214 | 176 |
| **Mauritania** | 81 | 78 | 76 | 760 | 630 | 510 | 125 | 118 | 112 |
| **Morocco** | 64 | 44 | 28 | 300 | 170 | 100 | 81 | 53 | 33 |
| **Mozambique** | 151 | 116 | 72 | 910 | 710 | 490 | 226 | 172 | 103 |
| **Niger** | 133 | 97 | 66 | 1200 | 870 | 590 | 314 | 216 | 125 |
| **Nigeria** | 127 | 113 | 78 | 1100 | 970 | 630 | 214 | 188 | 124 |
| **Oman** | 36 | 18 | 7 | 110 | 51 | 32 | 48 | 22 | 9 |
| **Pakistan** | 95 | 76 | 59 | 490 | 380 | 260 | 122 | 95 | 72 |
| **Qatar** | 17 | 11 | 6 | 15 | 11 | 7 | 20 | 13 | 8 |
| **Saudi Arabia** | 34 | 18 | 8 | 44 | 27 | 24 | 43 | 21 | 9 |
| **Senegal** | 69 | 67 | 47 | 670 | 500 | 370 | 136 | 130 | 65 |
| **Sierra Leone** | 158 | 146 | 119 | 1300 | 1300 | 890 | 267 | 241 | 185 |
| **Somalia** | 108 | 108 | 108 | 890 | 1000 | 1000 | 180 | 180 | 180 |
| **Sudan** | 77 | 67 | 57 | 1000 | 870 | 730 | 123 | 104 | 86 |
| **Suriname** | 44 | 35 | 26 | 84 | 130 | 130 | 52 | 40 | 30 |
| **Syria** | 30 | 19 | 13 | 240 | 120 | 70 | 36 | 23 | 15 |
| **Tajikistan** | 89 | 76 | 53 | 94 | 120 | 65 | 114 | 95 | 63 |
| **Togo** | 85 | 79 | 73 | 620 | 440 | 300 | 147 | 128 | 110 |
| **Tunisia** | 40 | 25 | 14 | 130 | 84 | 56 | 51 | 30 | 16 |
| **Turkey** | 60 | 28 | 12 | 67 | 39 | 20 | 72 | 35 | 15 |
| **Turkmenistan** | 75 | 59 | 45 | 82 | 91 | 67 | 94 | 71 | 53 |
| **Uganda** | 106 | 86 | 58 | 600 | 530 | 310 | 178 | 141 | 90 |
| **United Arab Emirates** | 19 | 11 | 6 | 24 | 14 | 12 | 22 | 12 | 7 |
| **Uzbekistan** | 62 | 51 | 42 | 59 | 33 | 28 | 75 | 61 | 49 |
| **Yemen** | 89 | 71 | 57 | 610 | 380 | 200 | 126 | 99 | 77 |
| **OIC Countries** | **83** | **68** | **51** | **574** | **464** | **311** | **123** | **100** | **72** |
| **Other Developing Countries** | **59** | **50** | **35** | **362** | **281** | **182** | **82** | **69** | **47** |
| **Developed Countries** | **8** | **5** | **4** | **12** | **11** | **8** | **10** | **7** | **6** |
| **World** | **61** | **51** | **37** | **389** | **312** | **210** | **88** | **73** | **52** |

*Source:* WHO, Global Health Observatory Data Repository, Sep. 2013.

**Table A.5:** Distribution of Causes of Death among Children Aged <5 Years (%)

| | HIV/AIDS | Diarrhoea | Measles | Malaria | Pneumonia | Prematurity | Birth asphyxia | Neonatal sepsis | Congenital anomalies | Other diseases | Injuries |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Afghanistan** | 0 | 16 | 2 | 0 | 25 | 14 | 9 | 5 | 3 | 20 | 5 |
| **Albania** | 0 | 1 | 0 | 0 | 11 | 19 | 7 | 5 | 24 | 20 | 11 |
| **Algeria** | 0 | 5 | 11 | 0 | 12 | 24 | 11 | 3 | 13 | 15 | 5 |
| **Azerbaijan** | 0 | 8 | 0 | 0 | 17 | 22 | 9 | 3 | 10 | 24 | 6 |
| **Bahrain** | 0 | 0 | 0 | 0 | 2 | 19 | 9 | 5 | 32 | 26 | 6 |
| **Bangladesh** | 0 | 6 | 1 | 1 | 14 | 29 | 14 | 9 | 7 | 14 | 6 |
| **Benin** | 1 | 10 | 0 | 23 | 17 | 12 | 9 | 2 | 4 | 18 | 3 |
| **Brunei** | 0 | 0 | 0 | 0 | 5 | 25 | 4 | 4 | 29 | 22 | 11 |
| **Burkina Faso** | 1 | 12 | 3 | 24 | 18 | 9 | 6 | 2 | 4 | 18 | 3 |
| **Cameroon** | 5 | 13 | 0 | 16 | 15 | 11 | 8 | 5 | 5 | 18 | 3 |
| **Chad** | 3 | 14 | 0 | 20 | 19 | 11 | 7 | 4 | 4 | 14 | 3 |
| **Comoros** | 0 | 9 | 0 | 14 | 18 | 15 | 11 | 4 | 5 | 20 | 4 |
| **Côte d'Ivoire** | 3 | 9 | 0 | 25 | 15 | 13 | 10 | 5 | 4 | 13 | 3 |
| **Djibouti** | 4 | 11 | 1 | 1 | 20 | 16 | 10 | 1 | 8 | 23 | 4 |
| **Egypt** | 0 | 7 | 0 | 0 | 11 | 30 | 11 | 2 | 21 | 15 | 3 |
| **Gabon** | 8 | 7 | 3 | 15 | 11 | 16 | 10 | 5 | 8 | 13 | 3 |
| **Gambia** | 3 | 9 | 0 | 20 | 15 | 14 | 10 | 4 | 6 | 15 | 4 |
| **Guinea** | 1 | 10 | 0 | 27 | 16 | 12 | 9 | 5 | 4 | 14 | 3 |
| **Guinea-Bissau** | 3 | 12 | 0 | 18 | 18 | 11 | 8 | 5 | 5 | 16 | 3 |
| **Guyana** | 1 | 3 | 0 | 7 | 4 | 25 | 16 | 9 | 9 | 23 | 2 |
| **Indonesia** | 0 | 5 | 5 | 2 | 14 | 25 | 11 | 5 | 9 | 19 | 6 |
| **Iran** | 0 | 4 | 0 | 0 | 13 | 28 | 11 | 4 | 18 | 16 | 6 |
| **Iraq** | 0 | 6 | 0 | 0 | 18 | 20 | 15 | 5 | 14 | 18 | 6 |
| **Jordan** | 0 | 4 | 0 | 0 | 8 | 34 | 12 | 3 | 21 | 11 | 7 |
| **Kazakhstan** | 0 | 6 | 0 | 0 | 13 | 22 | 10 | 3 | 14 | 24 | 7 |
| **Kuwait** | 0 | 1 | 0 | 0 | 6 | 27 | 7 | 1 | 43 | 5 | 10 |
| **Kyrgyzstan** | 0 | 6 | 0 | 0 | 14 | 20 | 10 | 4 | 13 | 26 | 7 |
| **Lebanon** | 1 | 4 | 0 | 0 | 8 | 29 | 11 | 3 | 21 | 17 | 7 |
| **Libya** | 0 | 1 | 0 | 0 | 3 | 27 | 9 | 3 | 19 | 10 | 29 |
| **Malaysia** | 0 | 2 | 0 | 0 | 6 | 24 | 8 | 5 | 31 | 20 | 4 |
| **Maldives** | 0 | 3 | 0 | 0 | 11 | 17 | 15 | 4 | 30 | 14 | 6 |
| **Mali** | 0 | 14 | 3 | 16 | 20 | 11 | 7 | 3 | 5 | 17 | 3 |
| **Mauritania** | 0 | 11 | 7 | 6 | 17 | 14 | 10 | 6 | 6 | 18 | 4 |
| **Morocco** | 0 | 6 | 0 | 0 | 15 | 28 | 13 | 3 | 12 | 16 | 6 |
| **Mozambique** | 10 | 9 | 1 | 19 | 15 | 11 | 9 | 4 | 3 | 14 | 3 |
| **Niger** | 1 | 14 | 0 | 15 | 22 | 12 | 7 | 3 | 3 | 19 | 4 |
| **Nigeria** | 4 | 11 | 1 | 20 | 17 | 12 | 8 | 6 | 4 | 14 | 3 |
| **Oman** | 0 | 1 | 0 | 0 | 5 | 29 | 9 | 3 | 28 | 17 | 8 |
| **Pakistan** | 0 | 11 | 1 | 0 | 19 | 20 | 13 | 9 | 5 | 18 | 5 |
| **Qatar** | 0 | 0 | 1 | 0 | 2 | 39 | 11 | 2 | 25 | 15 | 5 |
| **Saudi Arabia** | 0 | 2 | 0 | 0 | 7 | 30 | 8 | 2 | 23 | 15 | 13 |
| **Senegal** | 1 | 9 | 2 | 14 | 16 | 15 | 11 | 5 | 8 | 14 | 4 |
| **Sierra Leone** | 1 | 12 | 0 | 23 | 17 | 10 | 7 | 5 | 5 | 16 | 3 |
| **Somalia** | 1 | 16 | 0 | 7 | 25 | 12 | 9 | 5 | 5 | 17 | 3 |
| **Sudan** | 2 | 12 | 1 | 3 | 19 | 16 | 11 | 8 | 5 | 18 | 5 |
| **Suriname** | 2 | 3 | 0 | 0 | 9 | 21 | 10 | 7 | 15 | 25 | 8 |
| **Syria** | 0 | 7 | 0 | 0 | 8 | 30 | 11 | 3 | 24 | 12 | 5 |
| **Tajikistan** | 0 | 9 | 0 | 0 | 17 | 17 | 10 | 4 | 7 | 28 | 6 |
| **Togo** | 3 | 10 | 0 | 18 | 16 | 13 | 9 | 4 | 6 | 17 | 4 |
| **Tunisia** | 0 | 3 | 0 | 0 | 7 | 29 | 11 | 3 | 23 | 16 | 7 |
| **Turkey** | 0 | 1 | 0 | 0 | 11 | 24 | 7 | 7 | 23 | 23 | 4 |
| **Turkmenistan** | 0 | 8 | 0 | 0 | 16 | 21 | 10 | 4 | 10 | 26 | 5 |
| **Uganda** | 7 | 10 | 0 | 13 | 17 | 13 | 8 | 5 | 4 | 17 | 5 |
| **United Arab Emirates** | 0 | 0 | 0 | 0 | 2 | 40 | 9 | 1 | 27 | 16 | 4 |
| **Uzbekistan** | 0 | 7 | 0 | 0 | 15 | 20 | 10 | 4 | 11 | 27 | 6 |
| **Yemen** | 0 | 11 | 0 | 1 | 22 | 18 | 13 | 6 | 4 | 18 | 6 |
| **OIC Countries** | **2** | **10** | **1** | **11** | **17** | **16** | **10** | **6** | **6** | **16** | **4** |
| **Other Developing Countries** | **2** | **11** | **2** | **4** | **20** | **17** | **11** | **6** | **8** | **16** | **5** |
| **Developed Countries** | **0** | **0** | **0** | **0** | **2** | **21** | **5** | **3** | **25** | **28** | **15** |
| **World** | **2** | **10** | **2** | **7** | **19** | **17** | **10** | **6** | **7** | **16** | **5** |

*Source:* WHO, Global Health Observatory, Sep. 2013.

**Table A.6:** Children Aged <5 years

| | Stunted (%) | | Underweight (%) | | Overweight (%) | |
|---|---|---|---|---|---|---|
| | 1990-1999 | 2000- 2010 | 1990–1999 | 2000–2010 | 1990-1999 | 2000–2010 |
| Afghanistan | 53 | 59 | 45 | 33 | 7 | 5 |
| Albania | 20 | 27 | 7 | 7 | 10 | 25 |
| Algeria | 23 | 16 | 11 | 4 | 13 | 13 |
| Azerbaijan | ... | 27 | 9 | 8 | ... | 14 |
| Bahrain | ... | ... | 8 | ... | ... | ... |
| Bangladesh | 62 | 43 | 52 | 41 | 1 | 1 |
| Benin | 35 | 45 | 27 | 20 | 3 | 11 |
| Brunei Darussalam | ... | ... | ... | ... | ... | ... |
| Burkina Faso | 46 | 45 | 34 | 37 | 2 | 8 |
| Cameroon | 37 | 36 | 18 | 17 | 8 | 10 |
| Chad | 45 | 45 | 34 | 34 | 3 | 4 |
| Comoros | 41 | 47 | 22 | 25 | 6 | 22 |
| Côte d'Ivoire | 32 | 40 | 18 | 17 | 5 | 9 |
| Djibouti | 32 | 33 | 16 | 30 | ... | 13 |
| Egypt | 35 | 31 | 9 | 7 | 15 | 21 |
| Gabon | ... | 26 | ... | 9 | ... | 6 |
| Gambia | 36 | 28 | 23 | 16 | ... | 3 |
| Guinea | 34 | 40 | 21 | 21 | 4 | ... |
| Guinea-Bissau | ... | 48 | ... | 17 | ... | 17 |
| Guyana | 14 | 18 | 10 | 11 | 2 | 7 |
| Indonesia | ... | 40 | 23 | 20 | ... | 11 |
| Iran | 20 | ... | 10 | ... | 7 | ... |
| Iraq | ... | 28 | 10 | 7 | ... | 15 |
| Jordan | 11 | 8 | 4 | 2 | 4 | 7 |
| Kazakhstan | 14 | 18 | 4 | 5 | 5 | 15 |
| Kuwait | ... | 4 | 2 | 2 | ... | 9 |
| Kyrgyzstan | 33 | 18 | 8 | 3 | 9 | 11 |
| Lebanon | 17 | 17 | 4 | 4 | ... | 17 |
| Libya | 21 | 21 | 4 | 6 | ... | 22 |
| Malaysia | 21 | ... | 17 | ... | 6 | ... |
| Maldives | 47 | 32 | 42 | 26 | 7 | 4 |
| Mali | 36 | 39 | 24 | 28 | 2 | 5 |
| Mauritania | 50 | 24 | 20 | 17 | ... | ... |
| Morocco | 30 | 23 | 8 | 10 | 11 | 13 |
| Mozambique | 45 | 47 | 28 | 21 | 6 | 6 |
| Niger | 47 | 55 | 45 | 40 | 1 | 4 |
| Nigeria | 40 | 41 | 27 | 27 | ... | 11 |
| Oman | 13 | ... | 11 | ... | 2 | ... |
| Pakistan | 43 | 42 | 34 | 31 | 2 | 5 |
| Qatar | 12 | ... | 5 | ... | 10 | ... |
| Saudi Arabia | 21 | 9 | 14 | 5 | 1 | 6 |
| Senegal | 34 | 20 | 20 | 15 | 4 | 2 |
| Sierra Leone | ... | 37 | 25 | 21 | ... | 10 |
| Somalia | ... | 42 | ... | 33 | ... | 5 |
| Sudan | 40 | 38 | 32 | 32 | 2 | 5 |
| Suriname | 15 | 11 | 11 | 8 | 3 | 4 |
| Syria | 27 | 29 | 11 | 10 | ... | 19 |
| Tajikistan | 42 | 33 | ... | 15 | ... | 7 |
| Togo | 30 | 27 | 23 | 21 | 3 | ... |
| Tunisia | 31 | 9 | 3 | 3 | 25 | 9 |
| Turkey | 19 | 16 | 7 | 4 | 4 | 9 |
| Turkmenistan | ... | 28 | ... | 11 | ... | ... |
| Uganda | 45 | 39 | 22 | 16 | 5 | 5 |
| United Arab Emirates | ... | ... | ... | ... | ... | ... |
| Uzbekistan | 39 | 20 | 15 | 4 | 19 | 13 |
| Yemen | 59 | 58 | 48 | 43 | 4 | 5 |
| **OIC** | **41** | **37** | **26** | **23** | **5** | **9** |
| **Developing Countries** | **37** | **34** | **24** | **23** | **5** | **6** |
| **Developed Countries** | **3** | **3** | **1** | **1** | **5** | **7** |
| **World** | **36** | **32** | **24** | **22** | **5** | **6** |

*Source:* WHO, Global Health Observatory, Sep. 2013.

**Table A.7:** Adolescent Fertility Rate (AFR) and Life Expectancy at Birth (Years)

| | AFR per 1000 girls aged 15-19 | Life Expectancy at Birth (Years) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Male | | | Female | | | Both sexes | | |
| | 2005–2010 | 1990 | 2000 | 2011 | 1990 | 2000 | 2011 | 1990 | 2000 | 2011 |
| **Afghanistan** | 119 | 42.4 | 45.2 | 48.5 | 42.3 | 45.4 | 48.8 | 42.3 | 45.3 | 48.7 |
| **Albania** | 18 | 68.8 | 71.3 | 74.0 | 74.7 | 77.4 | 80.2 | 71.6 | 74.2 | 77.0 |
| **Algeria** | 7 | 65.9 | 68.8 | 71.6 | 68.3 | 71.3 | 74.6 | 67.1 | 70.0 | 73.1 |
| **Azerbaijan** | 34 | 60.6 | 63.8 | 67.8 | 69.1 | 69.9 | 73.6 | 64.7 | 66.8 | 70.7 |
| **Bahrain** | 15 | 71.3 | 72.9 | 74.5 | 73.7 | 74.7 | 75.8 | 72.5 | 73.8 | 75.2 |
| **Bangladesh** | 79 | 59.8 | 64.6 | 68.2 | 59.2 | 64.8 | 69.7 | 59.5 | 64.7 | 68.9 |
| **Benin** | 112 | 45.8 | 50.1 | 54.2 | 51.7 | 55.2 | 57.9 | 48.6 | 52.6 | 56.0 |
| **Brunei Darussalam** | 25 | 71.6 | 74.0 | 75.8 | 75.8 | 78.6 | 80.5 | 73.7 | 76.2 | 78.1 |
| **Burkina Faso** | 125 | 47.3 | 49.2 | 54.4 | 49.7 | 51.3 | 56.4 | 48.5 | 50.2 | 55.4 |
| **Cameroon** | 128 | 51.8 | 49.0 | 50.6 | 54.8 | 51.2 | 52.6 | 53.3 | 50.1 | 51.6 |
| **Chad** | 165 | 49.0 | 47.1 | 48.1 | 52.4 | 50.0 | 51.0 | 50.7 | 48.5 | 49.5 |
| **Comoros** | 58 | 53.7 | 56.3 | 59.7 | 57.6 | 59.5 | 62.5 | 55.6 | 57.9 | 61.0 |
| **Côte d'Ivoire** | 129 | 51.1 | 49.2 | 54.3 | 54.3 | 51.1 | 56.6 | 52.6 | 50.2 | 55.4 |
| **Djibouti** | 23 | 49.9 | 52.5 | 56.5 | 52.9 | 55.3 | 59.4 | 51.4 | 53.9 | 57.9 |
| **Egypt** | 47 | 60.4 | 67.3 | 71.3 | 63.7 | 71.0 | 75.2 | 62.0 | 69.1 | 73.2 |
| **Gabon** | 90 | 59.8 | 58.5 | 61.7 | 62.9 | 60.9 | 63.8 | 61.3 | 59.7 | 62.7 |
| **Gambia** | 77 | 51.9 | 54.0 | 57.3 | 54.4 | 56.4 | 59.7 | 53.1 | 55.2 | 58.5 |
| **Guinea** | 157 | 42.5 | 46.7 | 52.5 | 44.9 | 49.6 | 55.7 | 43.7 | 48.1 | 54.1 |
| **Guinea-Bissau** | 111 | 41.4 | 43.5 | 46.6 | 44.4 | 46.3 | 49.7 | 42.8 | 44.9 | 48.1 |
| **Guyana** | 74 | 58.1 | 61.3 | 66.8 | 64.3 | 67.7 | 73.1 | 61.1 | 64.4 | 69.9 |
| **Indonesia** | 45 | 60.5 | 64.1 | 67.7 | 63.8 | 67.3 | 71.1 | 62.1 | 65.6 | 69.3 |
| **Iran** | 29 | 58.2 | 68.7 | 71.2 | 65.8 | 70.8 | 74.9 | 61.9 | 69.7 | 73.0 |
| **Iraq** | 98 | 63.0 | 68.3 | 65.9 | 72.3 | 73.3 | 72.2 | 67.5 | 70.7 | 69.0 |
| **Jordan** | 26 | 69.3 | 70.9 | 72.0 | 71.7 | 73.3 | 74.9 | 70.4 | 72.1 | 73.4 |
| **Kazakhstan** | 30 | 63.8 | 60.2 | 64.2 | 73.1 | 71.1 | 73.8 | 68.3 | 65.5 | 68.9 |
| **Kuwait** | 14 | 71.6 | 72.9 | 73.8 | 73.8 | 74.7 | 75.7 | 72.7 | 73.8 | 74.7 |
| **Kyrgyzstan** | 34 | 64.2 | 64.9 | 65.7 | 72.6 | 72.4 | 73.7 | 68.3 | 68.6 | 69.6 |
| **Lebanon** | 16 | 66.4 | 68.6 | 70.5 | 71.1 | 72.8 | 74.8 | 68.7 | 70.6 | 72.6 |
| **Libya** | 3 | 65.8 | 70.0 | 72.4 | 70.5 | 75.2 | 77.6 | 68.1 | 72.5 | 75.0 |
| **Malaysia** | 14 | 68.1 | 70.0 | 72.1 | 72.1 | 74.3 | 76.5 | 70.1 | 72.1 | 74.3 |
| **Maldives** | 12 | 61.4 | 69.7 | 75.7 | 60.4 | 71.1 | 78.1 | 60.9 | 70.4 | 76.9 |
| **Mali** | 186 | 43.1 | 46.2 | 50.3 | 45.2 | 48.3 | 52.5 | 44.2 | 47.2 | 51.4 |
| **Mauritania** | 79 | 54.5 | 55.5 | 56.9 | 57.5 | 58.6 | 60.3 | 55.9 | 57.0 | 58.5 |
| **Morocco** | 15 | 62.3 | 66.6 | 69.9 | 66.1 | 70.9 | 74.5 | 64.1 | 68.7 | 72.1 |
| **Mozambique** | 149 | 41.6 | 45.6 | 49.2 | 44.8 | 49.0 | 51.1 | 43.2 | 47.2 | 50.2 |
| **Niger** | 207 | 41.1 | 47.9 | 54.2 | 41.8 | 48.7 | 55.2 | 41.4 | 48.3 | 54.7 |
| **Nigeria** | 118 | 44.5 | 45.5 | 51.1 | 46.9 | 47.1 | 52.7 | 45.6 | 46.3 | 51.9 |
| **Oman** | 9 | 69.4 | 73.3 | 71.0 | 71.9 | 75.0 | 75.8 | 70.6 | 74.1 | 73.3 |
| **Pakistan** | 32 | 60.1 | 62.4 | 64.5 | 61.5 | 64.0 | 66.4 | 60.8 | 63.2 | 65.4 |
| **Palestine** | … | 66.5 | 69.4 | 71.2 | 69.6 | 72.5 | 74.5 | 68.0 | 70.9 | 72.8 |
| **Qatar** | 16 | 73.8 | 76.4 | 78.5 | 74.5 | 76.2 | 77.9 | 74.1 | 76.3 | 78.2 |
| **Saudi Arabia** | 12 | 67.6 | 70.2 | 73.0 | 70.0 | 72.9 | 75.2 | 68.8 | 71.5 | 74.1 |
| **Senegal** | 106 | 52.3 | 54.7 | 58.2 | 54.3 | 56.8 | 60.4 | 53.2 | 55.7 | 59.3 |
| **Sierra Leone** | 144 | 37.4 | 38.5 | 47.2 | 40.1 | 41.0 | 48.4 | 38.7 | 39.7 | 47.8 |
| **Somalia** | 70 | 43.0 | 46.7 | 49.6 | 46.1 | 49.9 | 52.8 | 44.5 | 48.3 | 51.2 |
| **Sudan** | 62 | 51.1 | 55.5 | 59.7 | 54.1 | 58.5 | 63.3 | 52.5 | 57.0 | 61.4 |
| **Suriname** | 39 | 64.2 | 64.6 | 67.4 | 70.9 | 71.5 | 73.9 | 67.5 | 67.9 | 70.6 |
| **Syria** | 43 | 69.7 | 72.7 | 74.3 | 72.5 | 75.4 | 77.5 | 71.1 | 74.0 | 75.8 |
| **Tajikistan** | 28 | 59.8 | 60.0 | 64.4 | 66.1 | 67.7 | 70.8 | 62.9 | 63.8 | 67.5 |
| **Togo** | 65 | 51.4 | 53.3 | 55.5 | 54.7 | 56.4 | 58.6 | 53.0 | 54.8 | 57.0 |
| **Tunisia** | 6 | 68.6 | 70.6 | 72.9 | 72.1 | 74.7 | 76.7 | 70.3 | 72.6 | 74.8 |
| **Turkey** | 39 | 61.0 | 67.3 | 71.7 | 65.3 | 71.7 | 76.3 | 63.1 | 69.4 | 73.9 |
| **Turkmenistan** | 20 | 59.1 | 60.1 | 61.0 | 66.4 | 67.9 | 69.2 | 62.7 | 63.9 | 65.0 |
| **Uganda** | 150 | 45.4 | 45.3 | 53.4 | 49.4 | 47.0 | 54.8 | 47.4 | 46.1 | 54.1 |
| **United Arab Emirates** | 27 | 70.8 | 73.6 | 75.8 | 73.5 | 75.7 | 77.7 | 72.1 | 74.6 | 76.7 |
| **Uzbekistan** | 14 | 63.6 | 63.8 | 65.2 | 70.0 | 70.2 | 71.5 | 66.7 | 67.0 | 68.3 |
| **Yemen** | 79 | 54.9 | 58.5 | 64.0 | 57.3 | 61.0 | 67.0 | 56.1 | 59.7 | 65.5 |
| **OIC Countries** | **65** | **57.8** | **60.3** | **63.4** | **61.4** | **63.7** | **66.9** | **59.5** | **62.0** | **65.1** |
| **Other Developing** | **69** | **59.3** | **63.1** | **65.0** | **64.3** | **68.0** | **69.7** | **61.8** | **65.5** | **67.3** |
| **Developed Countries** | **22** | **70.1** | **74.4** | **75.8** | **76.4** | **80.3** | **80.8** | **73.1** | **77.3** | **78.3** |
| **World** | **65** | **60.7** | **64.2** | **66.4** | **65.5** | **68.8** | **70.8** | **63.0** | **66.4** | **68.5** |

*Source:* World Development Indicators 2013.

**Table A.8:** Adult Mortality Rate (probability of dying between 15 and 60 years per 1000 population)

| | 1990 | 2000 | 2011 |
|---|---|---|---|
| **Afghanistan** | 383 | 325 | 268 |
| **Albania** | 133 | 130 | 105 |
| **Algeria** | 171 | 147 | 111 |
| **Azerbaijan** | 225 | 176 | 129 |
| **Bahrain** | 106 | 102 | 62 |
| **Bangladesh** | 203 | 176 | 150 |
| **Benin** | 422 | 374 | 298 |
| **Brunei Darussalam** | 130 | 99 | 89 |
| **Burkina Faso** | 403 | 348 | 265 |
| **Cameroon** | 324 | 403 | 393 |
| **Chad** | 361 | 393 | 342 |
| **Comoros** | 316 | 290 | 252 |
| **Côte d'Ivoire** | 383 | 449 | 331 |
| **Djibouti** | 345 | 390 | 330 |
| **Egypt** | 205 | 156 | 113 |
| **Gabon** | 254 | 309 | 283 |
| **Gambia** | 325 | 310 | 266 |
| **Guinea** | 423 | 386 | 322 |
| **Guinea-Bissau** | 426 | 409 | 379 |
| **Guyana** | 303 | 291 | 321 |
| **Indonesia** | 264 | 229 | 183 |
| **Iran** | 300 | 156 | 120 |
| **Iraq** | 195 | 135 | 160 |
| **Jordan** | 166 | 139 | 123 |
| **Kazakhstan** | 235 | 308 | 244 |
| **Kuwait** | 120 | 77 | 54 |
| **Kyrgyzstan** | 224 | 242 | 207 |
| **Lebanon** | 234 | 147 | 122 |
| **Libya** | 203 | 142 | 286 |
| **Malaysia** | 170 | 157 | 133 |
| **Maldives** | 288 | 173 | 77 |
| **Mali** | 434 | 403 | 335 |
| **Mauritania** | 283 | 271 | 253 |
| **Morocco** | 186 | 151 | 115 |
| **Mozambique** | 436 | 435 | 436 |
| **Niger** | 402 | 342 | 294 |
| **Nigeria** | 386 | 409 | 376 |
| **Oman** | 162 | 125 | 130 |
| **Pakistan** | 207 | 189 | 170 |
| **Qatar** | 90 | 83 | 69 |
| **Saudi Arabia** | 132 | 101 | 63 |
| **Senegal** | 321 | 295 | 264 |
| **Sierra Leone** | 517 | 564 | 448 |
| **Somalia** | 438 | 370 | 358 |
| **Sudan** | 320 | 298 | 248 |
| **Suriname** | 221 | 204 | 153 |
| **Syria** | 151 | 116 | 104 |
| **Tajikistan** | 198 | 193 | 167 |
| **Togo** | 340 | 368 | 336 |
| **Tunisia** | 124 | 117 | 103 |
| **Turkey** | 177 | 145 | 96 |
| **Turkmenistan** | 247 | 275 | 290 |
| **Uganda** | 583 | 555 | 385 |
| **United Arab Emirates** | 146 | 116 | 79 |
| **Uzbekistan** | 198 | 202 | 172 |
| **Yemen** | 323 | 267 | 209 |
| **OIC Countries** | **272.5** | **252.9** | **217.3** |
| **Other Developing Countries** | **238.8** | **250.6** | **202.7** |
| **Developed Countries** | **115.5** | **96.4** | **74.2** |
| **World** | **228.2** | **225.8** | **185.7** |

*Source:* World Development Indicators 2013.

**Table A.9:** Prevalence of Tobacco Use among Adults and Deaths Caused by Tobacco-use Related Diseases

| | Tobacco Users (%), 2011 | | | Deaths (Thousands), 2008 | | |
|---|---|---|---|---|---|---|
| | **Male** | **Female** | **Both Sexes** | **Cancer** | **Cardiovascular diseases** | **Respiratory diseases** |
| **Afghanistan** | ... | ... | ... | 12 | 65 | 8 |
| **Albania** | 48 | 5 | 26.5 | 5 | 16 | 1 |
| **Algeria** | 28 | 2 | 15 | 21 | 49 | 12 |
| **Azerbaijan** | 34 | 0.9 | 17.45 | 10 | 43 | 3 |
| **Bahrain** | 35 | 8 | 21.5 | 0 | 1 | 0 |
| **Bangladesh** | 48 | 2 | 25 | 104 | 316 | 69 |
| **Benin** | 21 | 3 | 12 | 4 | 14 | 4 |
| **Brunei Darussalam** | ... | ... | ... | 0 | 0 | 0 |
| **Burkina Faso** | 21 | 10 | 15 | 6 | 17 | 5 |
| **Cameroon** | 12 | 2 | 7 | 9 | 39 | 11 |
| **Chad** | 20 | 4 | 12 | 4 | 18 | 5 |
| **Comoros** | 25 | 2 | 13.5 | 0 | 1 | 0 |
| **Côte d'Ivoire** | 16 | 9 | 12.5 | 8 | 47 | 13 |
| **Djibouti** | ... | ... | ... | 0 | 2 | 0 |
| **Egypt** | 46 | 0.5 | 23.25 | 51 | 178 | 13 |
| **Gabon** | 19 | 3 | 11 | 1 | 3 | 1 |
| **Gambia** | 32 | 3 | 17.5 | 1 | 2 | 1 |
| **Guinea** | 23 | 2 | 12.5 | 5 | 19 | 5 |
| **Guinea-Bissau** | ... | ... | ... | 1 | 3 | 1 |
| **Guyana** | ... | ... | ... | 1 | 2 | 0 |
| **Indonesia** | 67 | 3 | 35 | 215 | 513 | 119 |
| **Iran** | 26 | 0.5 | 13.25 | 47 | 171 | 17 |
| **Iraq** | 31 | 4 | 17.5 | 15 | 52 | 5 |
| **Jordan** | 47 | 6 | 26.5 | 3 | 12 | 1 |
| **Kazakhstan** | 40 | 9 | 24.5 | 22 | 95 | 5 |
| **Kuwait** | 35 | 4 | 19.5 | 1 | 2 | 0 |
| **Kyrgyzstan** | 45 | 2 | 23.5 | 5 | 22 | 3 |
| **Lebanon** | 43 | 22 | 32.5 | 5 | 12 | 1 |
| **Libya** | 45 | 0.5 | 22.75 | 4 | 13 | 1 |
| **Malaysia** | 43 | 1 | 22 | 20 | 42 | 9 |
| **Maldives** | 42 | 7 | 24.5 | 0 | 0 | 0 |
| **Mali** | 18 | 3 | 10 | 6 | 13 | 4 |
| **Mauritania** | 29 | 4 | 16.5 | 2 | 4 | 1 |
| **Morocco** | 32 | 2 | 17 | 20 | 69 | 8 |
| **Mozambique** | 21 | 3 | 11 | 11 | 43 | 12 |
| **Niger** | 9 | 0.5 | 4.75 | 5 | 12 | 3 |
| **Nigeria** | 10 | 2 | 6 | 74 | 240 | 62 |
| **Oman** | 13 | 0.5 | 6.75 | 1 | 5 | 0 |
| **Pakistan** | 38 | 7 | 22.5 | 102 | 363 | 76 |
| **Qatar** | ... | ... | ... | 0 | 0 | 0 |
| **Saudi Arabia** | 38 | 0.5 | 19.25 | 9 | 43 | 3 |
| **Senegal** | 16 | 0.5 | 8.25 | 5 | 12 | 3 |
| **Sierra Leone** | 48 | 20 | 34 | 2 | 6 | 2 |
| **Somalia** | ... | ... | ... | 4 | 18 | 3 |
| **Sudan** | ... | ... | ... | 17 | 98 | 14 |
| **Suriname** | 17 | 3 | 10 | 0 | 1 | 0 |
| **Syria** | ... | ... | ... | 6 | 34 | 3 |
| **Tajikistan** | ... | ... | ... | 3 | 16 | 1 |
| **Togo** | 14 | 2 | 8 | 3 | 10 | 2 |
| **Tunisia** | 52 | 11 | 31.5 | 8 | 21 | 2 |
| **Turkey** | 42 | 13 | 27.5 | 67 | 179 | 32 |
| **Turkmenistan** | ... | ... | ... | 3 | 22 | 1 |
| **Uganda** | 16 | 3 | 9.5 | 17 | 44 | 12 |
| **United Arab Emirates** | ... | ... | ... | 1 | 3 | 0 |
| **Uzbekistan** | 22 | 3 | 12.5 | 13 | 100 | 5 |
| **Yemen** | 35 | 11 | 23 | 8 | 36 | 4 |
| **OIC Countries** | 32 | 5 | 19 | **969** | **3162** | **567** |
| **Other Developing Countries** | 34 | 12 | 23 | **5348** | **14369** | **3728** |
| **Developed Countries** | 31 | 23 | 27 | **2236** | **2957** | **506** |
| **World** | 33 | 11 | 23 | **7583** | **17327** | **4234** |

*Source:* WHO, World Health Statistics 2013 and Global Burden of Disease database 2013.

**Table A.10:** Population using Improved Drinking-water Source and Sanitation Facilities

| | Water (%) | | | | | | Sanitation (%) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Urban | | Rural | | Total | | Urban | | Rural | | Total | |
| | 1990 | 2011 | 1990 | 2011 | 1990 | 2011 | 1990 | 2011 | 1990 | 2011 | 1990 | 2011 |
| **Afghanistan** | | 85.4 | 2.8 | 53 | | 60.6 | | 45.6 | | 23.2 | | 28.5 |
| **Albania** | 100 | 95.5 | 95.1 | 93.7 | 96.9 | 94.7 | 93.4 | 94.7 | 74.1 | 93 | 81.1 | 93.9 |
| **Algeria** | 99.7 | 85.5 | 87.6 | 79.5 | 93.9 | 83.9 | 99.4 | 97.6 | 76.8 | 88.4 | 88.6 | 95.1 |
| **Azerbaijan** | 87.7 | 88.4 | 49.2 | 70.7 | 69.9 | 80.2 | | 85.9 | | 77.5 | | 82 |
| **Bahrain** | 94.9 | 100 | 94.9 | 100 | 94.9 | 100 | 99 | 99.2 | 99 | 99.2 | 99 | 99.2 |
| **Bangladesh** | 86.7 | 85.3 | 73.6 | 82.4 | 76.2 | 83.2 | 54.4 | 55.3 | 33.6 | 54.5 | 37.7 | 54.7 |
| **Benin** | 72.3 | 84.5 | 49.1 | 69.1 | 57.1 | 76 | 13.8 | 25.3 | 0.3 | 5.1 | 5 | 14.2 |
| **Brunei** | | | | | | | | | | | | |
| **Burkina Faso** | 75 | 96.4 | 38.6 | 74.1 | 43.6 | 80 | 44.1 | 50.1 | 1.9 | 6.5 | 7.7 | 18 |
| **Cameroon** | 76.1 | 94.9 | 31.2 | 52.1 | 49 | 74.4 | 63.3 | 58.3 | 36.9 | 36.4 | 47.3 | 47.8 |
| **Chad** | 49.4 | 70.8 | 37.2 | 44.4 | 39.8 | 50.2 | 20.9 | 30.9 | 4.4 | 6.4 | 7.8 | 11.7 |
| **Comoros** | 97.7 | | 82.8 | 96.7 | 87 | | 34.4 | | 11.3 | | 17.7 | |
| **Côte d'Ivoire** | 90.4 | 91.1 | 66.6 | 68 | 76 | 79.9 | 38.3 | 35.8 | 7.8 | 11.4 | 19.8 | 23.9 |
| **Djibouti** | 81.1 | 100 | 56.3 | 67.3 | 75.1 | 92.5 | 69.2 | 73.1 | 39.2 | 21.6 | 61.9 | 61.3 |
| **Egypt** | 96.5 | 100 | 90.2 | 98.8 | 92.9 | 99.3 | 91.4 | 96.9 | 56.6 | 93.5 | 71.7 | 95 |
| **Gabon** | | 95.3 | | 41.3 | | 87.9 | | 33.3 | | 30.4 | | 32.9 |
| **Gambia** | 86.3 | 92.4 | 67.2 | 85.2 | 74.5 | 89.3 | | 69.8 | | 64.8 | | 67.7 |
| **Guinea** | 86.9 | 89.8 | 37.5 | 64.8 | 51.3 | 73.6 | 18.9 | 32.2 | 6.4 | 10.9 | 9.9 | 18.5 |
| **Guinea-Bissau** | 44.8 | 93.8 | 32.2 | 54.5 | 35.8 | 71.7 | | 33 | 3.3 | 8.1 | | 19 |
| **Guyana** | | 97.9 | | 93.2 | | 94.5 | | 87.7 | | 82.4 | | 83.9 |
| **Indonesia** | 89.7 | 92.8 | 61 | 75.5 | 69.8 | 84.3 | 60.5 | 73.4 | 24.2 | 43.5 | 35.3 | 58.7 |
| **Iran** | 98.2 | 97.5 | 80.7 | 90.3 | 90.6 | 95.3 | 84.4 | 100 | 75.6 | 98.7 | 80.6 | 99.6 |
| **Iraq** | 95.3 | 94 | 39.1 | 66.9 | 78.3 | 84.9 | | 86 | | 79.8 | | 83.9 |
| **Jordan** | 98.9 | 97.3 | 91.1 | 90.5 | 96.7 | 96.2 | 97.9 | 98.1 | 94.9 | 98 | 97.1 | 98.1 |
| **Kazakhstan** | 99.2 | 98.7 | 92.2 | 90.4 | 96.2 | 94.8 | 96.3 | 96.8 | 96.6 | 97.9 | 96.4 | 97.3 |
| **Kuwait** | 99 | 99 | 99 | 99 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 |
| **Kyrgyzstan** | 97 | 96 | | 84.7 | | 88.7 | 93.8 | 93.6 | | 93.1 | | 93.3 |
| **Lebanon** | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | | | | |
| **Libya** | 54.2 | | 54.9 | | 54.4 | | 96.8 | 96.8 | 95.7 | 95.7 | 96.5 | 96.6 |
| **Malaysia** | 94.3 | 100 | 82.1 | 98.5 | 88.2 | 99.6 | 88.4 | 96.1 | 80.5 | 94.6 | 84.4 | 95.7 |
| **Maldives** | 100 | 99.5 | 90.8 | 97.9 | 93.2 | 98.6 | 97.7 | 97.5 | 57.6 | 98.3 | 68 | 98 |
| **Mali** | 53.1 | 89.2 | 20.5 | 52.6 | 28.1 | 65.4 | 32.8 | 35.2 | 10 | 14.3 | 15.3 | 21.6 |
| **Mauritania** | 36.4 | 52.3 | 26.2 | 47.7 | 30.3 | 49.6 | 28.6 | 51.1 | 8.4 | 9.2 | 16.4 | 26.6 |
| **Morocco** | 93.2 | 98.2 | 54 | 60.8 | 73 | 82.1 | 80.6 | 83.1 | 27.1 | 52 | 53 | 69.8 |
| **Mozambique** | 73.1 | 78 | 24 | 33.2 | 34.3 | 47.2 | 35.2 | 37.2 | 2.1 | 4.6 | 9.1 | 14.1 |
| **Niger** | 56.6 | 100 | 30.7 | 39.5 | 34.7 | 50.3 | 19.3 | 34 | 1.5 | 4.3 | 4.3 | 9.6 |
| **Nigeria** | 80.9 | 75.1 | 28.8 | 47.3 | 47.2 | 61.1 | 40.2 | 33.2 | 36.9 | 28.1 | 38.1 | 30.6 |
| **Oman** | 83.4 | 94.8 | 70 | 85.2 | 78.8 | 92.3 | 95.3 | 97.3 | 55.3 | 94.7 | 81.8 | 96.6 |
| **Pakistan** | 95.4 | 95.7 | 80.8 | 89 | 85.3 | 91.4 | 72.2 | 71.8 | 6.9 | 33.6 | 26.8 | 47.4 |
| **Palestine** | 100 | 81.6 | | 82.3 | | 81.8 | 90.3 | 94.8 | | 92.8 | | 94.3 |
| **Qatar** | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| **Saudi Arabia** | 92 | 97 | 92 | 97 | 92 | 97 | 91.5 | 100 | 91.5 | 100 | 91.5 | 100 |
| **Senegal** | 88 | 93.2 | 41.5 | 58.7 | 59.6 | 73.4 | 59.5 | 67.9 | 20.7 | 39.1 | 35.8 | 51.4 |
| **Sierra Leone** | 66.3 | 84.1 | 22.8 | 40.3 | 37.2 | 57.5 | 22.7 | 22.5 | 5.1 | 6.7 | 10.9 | 12.9 |
| **Somalia** | | 66.4 | | 7.2 | | 29.5 | | 52 | | 6.3 | | 23.6 |
| **Sudan** | 85.6 | 66 | 61.3 | 50.2 | 67.4 | 55.4 | 52 | 43.9 | 18.3 | 13.4 | 26.8 | 23.5 |
| **Suriname** | 98.6 | 96.6 | | 81.1 | | 91.9 | 89.8 | 90.3 | | 66.2 | | 83 |
| **Syria** | 96.8 | 92.6 | 75 | 86.5 | 85.7 | 89.9 | 94.8 | 96.1 | 74.7 | 94 | 84.5 | 95.2 |
| **Tajikistan** | | 91.8 | | 56.5 | | 65.9 | 92.8 | 95.4 | | 94.4 | | 94.7 |
| **Togo** | 79.2 | 89.7 | 36.2 | 40.1 | 48.5 | 59 | 26.3 | 25.5 | 7.9 | 2.7 | 13.2 | 11.4 |
| **Tunisia** | 94.7 | 100 | 63.3 | 89.2 | 81.5 | 96.4 | 94.1 | 97.3 | 42.9 | 75 | 72.6 | 89.8 |
| **Turkey** | 93.7 | 100 | 73.2 | 99.1 | 85.4 | 99.7 | 95.6 | 97.2 | 66.1 | 75.5 | 83.5 | 91 |
| **Turkmenistan** | 99.1 | 89.1 | | 53.7 | | 71 | 99.1 | 100 | 97.2 | 98.2 | 98.1 | 99.1 |
| **Uganda** | 78.6 | 91.3 | 35.8 | 71.7 | 40.6 | 74.8 | 32.7 | 33.9 | 26.5 | 35.2 | 27.1 | 35 |
| **United Arab Emirates** | 99.6 | 99.6 | 100 | 100 | 99.7 | 99.6 | 98 | 98 | 95.2 | 95.2 | 97.4 | 97.5 |
| **Uzbekistan** | 97 | 98.5 | 85.3 | 80.9 | 90 | 87.3 | 95.4 | 100 | 75.8 | 100 | 83.7 | 100 |
| **Yemen** | 95.7 | 72 | 58.5 | 46.5 | 66.3 | 54.8 | 69.8 | 92.5 | 11.5 | 34.1 | 23.7 | 53 |
| **OIC Countries** | **77.0** | **86.2** | **52.0** | **69.8** | **58.7** | **76.1** | **59.0** | **70.1** | **34.4** | **54.2** | **40.5** | **60.4** |
| **Other Developing Countries** | **79.4** | **84.3** | **52.0** | **69.5** | **59.4** | **74.4** | **57.8** | **63.9** | **35.9** | **50.4** | **42.5** | **55.9** |
| **Developed Countries** | **99.8** | **99.9** | **93.1** | **96.2** | **96.6** | **99.8** | **93.7** | **93.9** | **92.7** | **90.5** | **93.4** | **93.8** |
| **World** | **82.1** | **87.5** | **58.9** | **74.1** | **65.4** | **79.2** | **64.2** | **70.8** | **45.0** | **58.2** | **50.5** | **63.6** |

*Source:* World Development Indicators 2013.

**Table A.11:** Total Health Expenditures

| | % of GDP | | Public Share (%) | | Private Share (%) | | Share of Public Health Expenditures in Budget | |
|---|---|---|---|---|---|---|---|---|
| | 2000 | 2011 | 2000 | 2011 | 2000 | 2011 | 2000 | 2011 |
| **Afghanistan** | 6 | 10 | 3 | 16 | 97 | 84 | 7 | 3 |
| **Albania** | 6 | 6 | 36 | 45 | 64 | 55 | 7 | 10 |
| **Algeria** | 4 | 4 | 73 | 81 | 27 | 19 | 9 | 8 |
| **Azerbaijan** | 5 | 5 | 19 | 22 | 82 | 79 | 4 | 4 |
| **Bahrain** | 4 | 4 | 68 | 71 | 33 | 29 | 10 | 9 |
| **Bangladesh** | 3 | 4 | 39 | 37 | 61 | 63 | 8 | 9 |
| **Benin** | 4 | 5 | 44 | 53 | 56 | 47 | 10 | 11 |
| **Brunei Darussalam** | 3 | 3 | 87 | 85 | 14 | 15 | 6 | 9 |
| **Burkina Faso** | 5 | 7 | 40 | 50 | 60 | 50 | 9 | 13 |
| **Cameroon** | 5 | 5 | 22 | 31 | 78 | 69 | 7 | 9 |
| **Chad** | 6 | 4 | 43 | 27 | 58 | 73 | 13 | 3 |
| **Comoros** | 3 | 5 | 54 | 75 | 46 | 25 | 10 | 13 |
| **Côte d'Ivoire** | 5 | 7 | 26 | 27 | 74 | 73 | 7 | 7 |
| **Djibouti** | 6 | 8 | 68 | 68 | 32 | 32 | 12 | 14 |
| **Egypt** | 5 | 5 | 41 | 41 | 60 | 60 | 7 | 7 |
| **Gabon** | 3 | 3 | 42 | 53 | 58 | 47 | 6 | 7 |
| **Gambia** | 6 | 4 | 34 | 54 | 66 | 46 | 9 | 11 |
| **Guinea** | 5 | 6 | 12 | 27 | 88 | 73 | 4 | 7 |
| **Guinea-Bissau** | 6 | 6 | 16 | 27 | 84 | 73 | 2 | 8 |
| **Guyana** | 6 | 6 | 85 | 79 | 16 | 21 | 10 | 16 |
| **Indonesia** | 2 | 3 | 37 | 34 | 63 | 66 | 5 | 5 |
| **Iran** | 5 | 6 | 42 | 40 | 58 | 60 | 8 | 10 |
| **Iraq** | 1 | 8 | 29 | 81 | 71 | 19 | 1 | 10 |
| **Jordan** | 10 | 8 | 48 | 68 | 52 | 32 | 11 | 18 |
| **Kazakhstan** | 4 | 4 | 51 | 58 | 49 | 42 | 9 | 11 |
| **Kuwait** | 3 | 3 | 74 | 82 | 26 | 18 | 6 | 6 |
| **Kyrgyzstan** | 5 | 7 | 44 | 60 | 56 | 40 | 12 | 12 |
| **Lebanon** | 11 | 6 | 30 | 26 | 70 | 75 | 8 | 6 |
| **Libya** | 3 | 4 | 57 | 69 | 43 | 31 | 6 | 8 |
| **Malaysia** | 3 | 4 | 52 | 46 | 48 | 54 | 6 | 6 |
| **Maldives** | 9 | 9 | 47 | 44 | 53 | 56 | 11 | 9 |
| **Mali** | 6 | 7 | 33 | 45 | 67 | 55 | 10 | 12 |
| **Mauritania** | 4 | 5 | 79 | 61 | 21 | 39 | 10 | 11 |
| **Morocco** | 4 | 6 | 29 | 34 | 71 | 66 | 4 | 7 |
| **Mozambique** | 6 | 7 | 72 | 42 | 28 | 58 | 18 | 8 |
| **Niger** | 4 | 5 | 51 | 55 | 49 | 45 | 10 | 11 |
| **Nigeria** | 5 | 5 | 34 | 37 | 67 | 63 | 4 | 8 |
| **Oman** | 3 | 2 | 82 | 81 | 18 | 19 | 7 | 5 |
| **Pakistan** | 3 | 3 | 21 | 27 | 79 | 73 | 2 | 4 |
| **Qatar** | 2 | 2 | 69 | 79 | 31 | 21 | 5 | 6 |
| **Saudi Arabia** | 4 | 4 | 72 | 69 | 28 | 31 | 9 | 7 |
| **Senegal** | 4 | 6 | 37 | 58 | 63 | 42 | 9 | 12 |
| **Sierra Leone** | 15 | 19 | 7 | 18 | 93 | 82 | 4 | 12 |
| **Sudan** | 3 | 8 | 28 | 28 | 73 | 72 | 8 | 11 |
| **Suriname** | 8 | 5 | 49 | 53 | 51 | 47 | 10 | 12 |
| **Syria** | 5 | 4 | 40 | 49 | 60 | 51 | 7 | 6 |
| **Tajikistan** | 5 | 6 | 20 | 30 | 80 | 70 | 7 | 6 |
| **Togo** | 5 | 8 | 30 | 52 | 70 | 48 | 8 | 15 |
| **Tunisia** | 6 | 6 | 55 | 55 | 45 | 45 | 8 | 11 |
| **Turkey** | 5 | 7 | 63 | 75 | 37 | 25 | 10 | 13 |
| **Turkmenistan** | 4 | 3 | 80 | 61 | 20 | 39 | 14 | 10 |
| **Uganda** | 7 | 10 | 27 | 26 | 73 | 74 | 7 | 11 |
| **United Arab Emirates** | 3 | 3 | 77 | 74 | 23 | 26 | 8 | 9 |
| **Uzbekistan** | 6 | 5 | 44 | 51 | 56 | 49 | 6 | 9 |
| **Yemen** | 5 | 6 | 54 | 21 | 46 | 79 | 8 | 4 |
| **OIC Countries** | **4** | 4.7 | **53** | 56 | **47** | 44 | **8** | **8.1** |
| **Other Developing Countries** | **5** | 6.1 | **48** | 49.8 | **53** | 50.2 | **10** | **11.4** |
| **Developed Countries** | **10** | 8.7 | **59** | **65** | **40** | **35** | **16** | **17.7** |
| **World** | **9** | 7.6 | **58** | **61** | **42** | **39** | **15** | **15.8** |

*Source:* WHO, World Health Statistics 2013.

**Table A.12:** Major Sources of Total Health Expenditures (%)

| | Tax | | Social Security | | External Resources | | Private Insurance | | Out-of-pocket | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2011 | 2000 | 2011 | 2000 | 2011 | 2000 | 2011 | 2000 | 2011 |
| Afghanistan | ... | 5.51 | ... | 0.00 | 0.8 | 16.4 | ... | 0.0 | ... | 79.3 |
| Albania | 10.3 | 12.69 | 7.4 | 33.20 | 6.0 | 1.00 | 0.0 | 0.0 | 63.8 | 55.1 |
| Algeria | 35.0 | 0.00 | 26.0 | 26.18 | 0.1 | 0.00 | 0.8 | 1.0 | 25.8 | 18.2 |
| Azerbaijan | 13.5 | 8.22 | 0.0 | 0.00 | 4.0 | 0.70 | 0.2 | 0.6 | 63.2 | 70.1 |
| Bahrain | 46.0 | 0.00 | 0.3 | 1.14 | 0.0 | 0.00 | 8.3 | 6.7 | 22.3 | 16.6 |
| Bangladesh | 12.0 | 13.67 | 0.0 | 0.00 | 6.9 | 6.60 | 0.1 | 0.2 | 58.0 | 61.2 |
| Benin | 28.4 | 0.0 | 0.2 | 0.2 | 17.2 | 34.6 | 0.1 | 3.4 | 56.1 | 42.6 |
| Brunei Darussalam | 54.2 | 61.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 14.8 |
| Burkina Faso | 35.6 | 38.8 | 0.3 | 0.3 | 13.9 | 41.3 | 0.6 | 1.2 | 57.0 | 36.5 |
| Cameroon | 12.5 | 24.4 | 0.7 | 0.8 | 4.1 | 4.3 | 0.0 | 0.0 | 73.6 | 65.1 |
| Chad | 81.7 | 0.0 | 0.0 | 0.0 | 24.9 | 15.1 | 0.2 | 0.1 | 55.3 | 70.5 |
| Comoros | 39.8 | 0.0 | 0.0 | 0.0 | 26.4 | 40.5 | 0.0 | 0.0 | 45.9 | 25.2 |
| Côte d'Ivoire | 22.8 | 0.0 | 0.0 | 0.0 | 5.4 | 11.2 | 1.4 | 0.8 | 72.3 | 64.3 |
| Djibouti | 53.1 | 0.0 | 7.7 | 6.5 | 32.6 | 14.2 | 0.5 | 0.3 | 31.7 | 31.6 |
| Egypt | 15.0 | 15.9 | 9.8 | 7.5 | 1.0 | 0.5 | 0.2 | 1.0 | 58.0 | 58.1 |
| Gabon | 36.0 | 0.0 | 2.4 | 13.3 | 2.6 | 1.1 | 0.0 | 0.0 | 58.0 | 46.6 |
| Gambia | 23.8 | 24.6 | 0.0 | 0.0 | 22.2 | 47.4 | 1.5 | 1.5 | 35.7 | 22.3 |
| Guinea | 7.9 | 11.9 | 0.2 | 1.2 | 9.0 | 12.3 | 0.0 | 0.5 | 87.2 | 67.4 |
| Guinea-Bissau | 5.2 | 0.0 | 0.9 | 0.4 | 46.5 | 45.1 | 0.0 | 0.0 | 51.5 | 41.4 |
| Guyana | 31.8 | 42.4 | 0.0 | 3.2 | 4.2 | 18.9 | 0.0 | 0.1 | 15.5 | 18.0 |
| Indonesia | 14.7 | 17.7 | 2.3 | 6.9 | 0.0 | 1.2 | 4.1 | 2.7 | 46.2 | 49.9 |
| Iran | 27.1 | 0.0 | 24.0 | 19.3 | 0.0 | 0.0 | 2.1 | 1.7 | 56.2 | 58.5 |
| Iraq | ... | 0.0 | ... | 0.0 | 26.5 | 0.6 | ... | 0.0 | ... | 19.3 |
| Jordan | 26.9 | 41.6 | 4.6 | 19.0 | 4.4 | 3.0 | 2.7 | 5.8 | 38.7 | 24.7 |
| Kazakhstan | 26.5 | 29.5 | 0.0 | 0.0 | 7.4 | 0.7 | 0.1 | 0.1 | 48.5 | 41.6 |
| Kuwait | 45.4 | 32.4 | 0.0 | 0.0 | 0.0 | … | 1.6 | 1.7 | 24.6 | 16.1 |
| Kyrgyzstan | 51.2 | 32.5 | 4.4 | 38.3 | 9.9 | 10.7 | 0.0 | 0.0 | 49.7 | 34.4 |
| Lebanon | 12.7 | 13.1 | 16.1 | 20.0 | 2.1 | 1.0 | 12.0 | 15.0 | 55.7 | 56.5 |
| Libya | 37.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 42.8 | 31.2 |
| Malaysia | 19.7 | 22.1 | 0.3 | 0.5 | 0.6 | 0.0 | 5.7 | 8.0 | 35.9 | 41.7 |
| Maldives | 23.0 | 0.0 | 0.0 | 9.9 | 2.2 | 3.6 | 0.0 | 3.6 | 39.3 | 49.1 |
| Mali | 25.0 | 30.6 | 0.0 | 0.3 | 7.8 | 26.0 | 0.1 | 0.2 | 66.5 | 54.4 |
| Mauritania | 69.8 | 29.8 | 0.0 | 6.2 | 17.2 | 7.9 | 0.0 | 0.2 | 21.1 | 37.2 |
| Morocco | 17.5 | 16.9 | 0.0 | 8.5 | 0.5 | 0.4 | 16.5 | 7.7 | 54.1 | 58.0 |
| Mozambique | 35.8 | 16.4 | 0.2 | 13.8 | 26.4 | 69.8 | 0.3 | 0.0 | 12.7 | 9.0 |
| Niger | 55.7 | 28.7 | 1.4 | 0.7 | 38.0 | 28.0 | 4.9 | 2.0 | 43.2 | 37.6 |
| Nigeria | 7.6 | 0.0 | 0.0 | 0.0 | 16.2 | 5.4 | 3.4 | 2.0 | 61.6 | 60.4 |
| Oman | 49.3 | 0.0 | 0.0 | 0.0 | 0.0 | … | 3.9 | 4.3 | 11.7 | 11.5 |
| Pakistan | 6.4 | 11.4 | 1.2 | 0.9 | 0.8 | 5.1 | 0.2 | 0.2 | 63.3 | 63.0 |
| Qatar | 42.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.2 | 26.4 | 13.7 |
| Saudi Arabia | 55.6 | 31.3 | 0.0 | 0.0 | 0.0 | … | 3.0 | 6.0 | 18.9 | 18.1 |
| Senegal | 24.8 | 17.2 | 3.2 | 2.3 | 17.4 | 14.0 | 4.5 | 7.5 | 57.9 | 32.7 |
| Sierra Leone | 5.5 | 6.4 | 0.0 | 0.0 | 6.6 | 19.9 | 0.6 | 0.2 | 88.0 | 74.9 |
| Sudan | 14.6 | 32.4 | 2.2 | 0.0 | 4.4 | 4.5 | 1.5 | 0.7 | 66.6 | 69.1 |
| Suriname | 5.6 | 0.0 | 19.9 | 5.7 | 10.9 | 4.4 | 0.4 | 7.6 | 22.5 | 11.0 |
| Syria | 16.3 | … | 0.0 | … | 0.1 | 0.4 | 0.0 | … | 59.6 | … |
| Tajikistan | 14.3 | 16.5 | 0.0 | 0.0 | 2.3 | 14.3 | 0.0 | 0.1 | 78.8 | 60.1 |
| Togo | 24.1 | 29.4 | 3.7 | 0.0 | 6.6 | 17.4 | 3.8 | 2.0 | 60.7 | 40.4 |
| Tunisia | 19.0 | 33.5 | 15.9 | 0.0 | 0.9 | 0.9 | 8.1 | 4.6 | 36.2 | 39.5 |
| Turkey | 23.5 | 28.8 | 34.9 | 35.7 | 0.1 | … | 4.4 | 1.8 | 27.7 | 16.2 |
| Turkmenistan | 42.8 | 13.9 | 5.2 | 34.7 | 1.4 | 1.0 | 0.0 | 0.0 | 20.4 | 39.2 |
| Uganda | 15.9 | 6.7 | 0.0 | 0.0 | 28.3 | 27.0 | 0.1 | 0.1 | 41.5 | 47.8 |
| United Arab Emirates | 24.8 | 0.0 | 0.0 | 0.4 | 0.0 | … | 4.7 | 7.0 | 16.2 | 16.2 |
| Uzbekistan | 19.7 | 14.3 | 0.0 | 28.3 | 6.2 | 2.1 | 0.0 | 2.6 | 54.2 | 43.8 |
| Yemen | 24.9 | 15.0 | 0.0 | 8.1 | 8.0 | 4.2 | 1.0 | 1.0 | 43.7 | 78.1 |
| OIC Countries | 26.1 | 15.2 | 11.4 | 11.3 | 1.9 | 1.9 | 3.4 | 3.0 | 39.5 | 36.5 |
| Other Developing | 27.1 | 26.5 | 20.2 | 22.0 | 0.8 | 0.8 | 8.0 | 8.6 | 42.4 | 37.4 |
| Developed Countries | 25.5 | 40.0 | 28.8 | 28.9 | 0.0 | 0.0 | 20.2 | 15.1 | 15.2 | 15.2 |
| World | 25.7 | 35.5 | 27.6 | 26.4 | 0.1 | 0.3 | 18.7 | 12.9 | 18.4 | 21.4 |

*Source:* WHO, World Health Statistics 2013.

**Table A.13:** Health Workforce and Hospital Beds

| | Physicians per 10,000 population | Nurses and Midwives per 10,000 population | Hospital beds per 10,000 population |
|---|---|---|---|
| | **2000-2011** | **2000-2011** | **2000–2011** |
| **Afghanistan** | 2.1 | 5 | 4 |
| **Albania** | 11.1 | 40.3 | 29 |
| **Algeria** | 12.1 | 19.5 | 17 |
| **Azerbaijan** | 33.8 | 68.4 | 79 |
| **Bahrain** | 14.4 | 37.3 | 19 |
| **Bangladesh** | 3.6 | 2.18 | 4 |
| **Benin** | 0.6 | 7.7 | 5 |
| **Brunei Darussalam** | 14.2 | 48.8 | 27 |
| **Burkina Faso** | 0.6 | 7.3 | 4 |
| **Cameroon** | 1.9 | 16 | 13 |
| **Chad** | 0.4 | 2.8 | 4 |
| **Comoros** | 1.5 | 7.4 | 22 |
| **Côte d'Ivoire** | 1.4 | 4.8 | 4 |
| **Djibouti** | 2.3 | 8 | 14 |
| **Egypt** | 28.3 | 35.2 | 17 |
| **Gabon** | 2.9 | 50.2 | 63 |
| **Gambia** | 0.4 | 5.7 | 11 |
| **Guinea** | 1 | 0.4 | 3 |
| **Guinea-Bissau** | 0.5 | 5.5 | 10 |
| **Guyana** | 4.8 | 22.9 | 19 |
| **Indonesia** | 2.9 | 20.4 | 6 |
| **Iran** | 8.9 | 16 | 14 |
| **Iraq** | 6.9 | 13.8 | 13 |
| **Jordan** | 24.5 | 40.3 | 18 |
| **Kazakhstan** | 38.4 | 78.3 | 77 |
| **Kuwait** | 17.9 | 45.5 | 18 |
| **Kyrgyzstan** | 24.7 | 56.6 | 51 |
| **Lebanon** | 35.4 | 22.3 | 35 |
| **Libya** | 19 | 68 | 37 |
| **Malaysia** | 9.4 | 27.3 | 18 |
| **Maldives** | 16 | 44.5 | 26 |
| **Mali** | 0.5 | 3 | 1 |
| **Mauritania** | 1.3 | 6.7 | 4 |
| **Morocco** | 6.2 | 8.9 | 11 |
| **Mozambique** | 0.3 | 3.1 | 7 |
| **Niger** | 0.2 | 1.4 | 3 |
| **Nigeria** | 4 | 16.1 | 5 |
| **Oman** | 19 | 41.1 | 19 |
| **Pakistan** | 8.1 | 5.6 | 6 |
| **Qatar** | 27.6 | 73.7 | 14 |
| **Saudi Arabia** | 9.4 | 21 | 22 |
| **Senegal** | 0.6 | 4.2 | 3 |
| **Sierra Leone** | 0.2 | 1.7 | 4 |
| **Somalia** | 0.4 | 1.1 | |
| **Sudan** | 2.8 | 8.4 | 7 |
| **Suriname** | 4.5 | 16.2 | 31 |
| **Syria** | 15 | 18.6 | 15 |
| **Tajikistan** | 19.0 | 44.76 | 61 |
| **Togo** | 0.5 | 2.7 | 7 |
| **Tunisia** | 11.9 | 32.8 | 21 |
| **Turkey** | 17.1 | 24.02 | 24 |
| **Turkmenistan** | 24.4 | 45.2 | 41 |
| **Uganda** | 1.2 | 13.1 | 5 |
| **United Arab Emirates** | 19.3 | 40.9 | 19 |
| **Uzbekistan** | 26.2 | 108.1 | 48 |
| **Yemen** | 8.0 | 17.9 | 7 |
| **OIC Countries** | **8.0** | **17.9** | **11.6** |
| **Other Developing Countries** | **12.3** | **21.1** | **29.3** |
| **Developed Countries** | **30.0** | **83.1** | **55.7** |
| **World** | **15.5** | **32.2** | **29** |

*Source:* WHO, World Health Statistics 2013.

**Table A.14:** World Bank HNP Sector Projects with Health Reform Orientation (1997-2007)

| Year | Project Name | Country |
|---|---|---|
| **1997** | Health Sector Development Program | Niger |
| **1998** | Health Sector | Egypt |
| **1998** | National Health Development Program | Guinea-Bissau |
| **1998** | Health Sector Investment Program | Mauritania |
| **1998** | Integrated Health Sector Development | Senegal |
| **1998** | Health Sector | Tunisia |
| **1999** | Health V | Indonesia |
| **1999** | Health Sector Reform | Jordan |
| **1999** | Health Restructuring | Kazakhstan |
| **1999** | Health Sector Development Program | Mali |
| **1999** | Health Management | Morocco |
| **1999** | Health | Uzbekistan |
| **2000** | Health Sector Support | Chad |
| **2001** | Health Reform LIL | Azerbaijan |
| **2001** | Health II | Kyrgyz Republic |
| **2002** | Health Sector Development | Djibouti |
| **2002** | Health Reform Support | Yemen |
| **2003** | Health Sector Emergency Rehabilitation | Afghanistan |
| **2003** | Health Sector Reconstruction and Development | Sierra Leone |
| **2004** | Health Transition | Turkey |
| **2005** | HNP Sector Program | Bangladesh |
| **2005** | Health Sector Support | Guinea |
| **2005** | Health II | Uzbekistan |
| **2006** | Health Sector Reform | Azerbaijan |
| **2006** | Health and Social Protection | Kyrgyz Republic |
| **2006** | Institutional Strengthening & Health Sector Support Program | Niger |

*Source:* World Bank IEG

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