

Success Factors for Women's and Children's Health



EGYPT

Ministry of Health and Population, Egypt

“Success factors for women’s and children’s health: Egypt” is a document of the Ministry of Health and Population, Arab Republic of Egypt. This report is the result of a collaboration between the Ministry of Health and Population and multiple stakeholders in Egypt, supported by the Partnership for Maternal, Newborn and Child Health (PMNCH), the World Health Organization (WHO), other H4+ and health and development partners who provided input and review.

Success Factors for Women’s and Children’s Health is a three-year multidisciplinary, multi-country series of studies coordinated by the PMNCH, WHO, World Bank and the Alliance for Health Policy and Systems Research, working closely with Ministries of Health, academic institutions and other partners. The objective was to understand how some countries accelerated progress to reduce preventable maternal and child deaths.^{1,2} For more details see the Success Factors for Women’s and Children’s health website: <http://www.who.int/pmnch/successfactors/en/>

WHO Library Cataloguing-in-Publication Data

Success factors for women’s and children’s health: Egypt

I. World Health Organization.

ISBN 978 92 4 150902 2

Subject headings are available from WHO institutional repository

© World Health Organization 2015

All rights reserved. Publications of the World Health Organization are available on the WHO web site (www.who.int) or can be purchased from WHO Press, World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland (tel.: +41 22 791 3264; fax: +41 22 791 4857; e-mail: bookorders@who.int).

Requests for permission to reproduce or translate WHO publications –whether for sale or for non-commercial distribution– should be addressed to WHO Press through the WHO website (www.who.int/about/licensing/copyright_form/en/index.html).

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers’ products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use.

Printed in Switzerland

Suggested citation: Ministry of Health and Population Egypt, Partnership for Maternal, Newborn & Child Health, WHO, World Bank and Alliance for Health Policy and Systems Research. Success factors for women’s and children’s health: Egypt. Geneva: World Health Organisation; 2014.

Index

1. Executive Summary	4
2. Introduction.....	6
3. Country Context.....	7
4. Key Trends, Timelines and Challenges	9
5. Health Sector Initiatives and Investments.....	13
6. Initiatives and Investments Outside the Health Sector	19
7. Key Actors and Political Economy.....	23
8. Governance and Leadership	24
9. Challenges and Future Priorities.....	25
10. References	27
11. Acronyms.....	29
12. Acknowledgements.....	30



I. Executive Summary

Overview

Egypt has made significant progress in improving the health of women and children and was on the fast track in 2012 to achieve Millennium Development Goals (MDGs) 4 (to reduce child mortality) and 5a (to reduce maternal mortality). A combination of factors has played a key role in driving progress. This review provided an opportunity for the Ministry of Health in Egypt and other key stakeholders to synthesize and document how these improvements were made, focusing on policy and programme management best practices.

Under 5 child mortality

Reductions in mortality are associated both with improved coverage of effective interventions to prevent or treat the most important causes of child mortality—in particular immunization coverage, and appropriate care seeking for sick children, as well as improvements in overall socioeconomic conditions. Egypt has met its MDG 4 target with a decline of 75% in under 5 mortality between 1990 and 2012. The United Nations (UN) Interagency estimate for Egypt's under 5 mortality rate (U5MR) was 21/1000 live births (LB) in 2012. Egypt's most recent Demographic and Health Survey (DHS) (2008) showed an U5MR of 28/1000 LB. Egypt plans to reach a new target for U5MR of 16 by 2015.

Maternal mortality

The decline in maternal mortality is likely associated with high rates of family planning use, antenatal care and skilled birth attendance. Egypt is on track to achieve its MDG 5a for reducing maternal mortality. According to recent UN maternal mortality estimates, Egypt has reduced its maternal mortality ratio from 120 in 1990 to 45 in 2013, a 62.5% reduction. However, national data hide large discrepancies between rich and poor and urban and rural populations.

Health sector initiatives and investments

Government expenditure on health as a percent of total health expenditure is amongst the lowest in the region. Health sector reforms aim to deliver universal access to a basic package of health care services to the population. The health workforce has increased significantly since the 1990s and has greater capacity than the regional average, however, challenges with workforce distribution remain despite several initiatives to improve it. Egypt has a wide network of public, nongovernmental organizations (NGOs) and private facilities for providing health care services. The government of Egypt (GoE) has prioritized reproductive, maternal, newborn and child health (RMNCH) interventions as a core part of its strategy.

Investments and initiatives outside the health sector

Egypt has demonstrated a strong commitment to improving education, which has been identified as a key development tool. The government has initiated several educational reform programmes, with a particular focus on increasing enrolment of girls in schools and improving the ratio of girls to boys in education. Concerns remain, however, around the quality of education. Egypt has historically had relatively high rates of access to improved water and sanitation facilities, and in recent years these have improved further. Electricity is available throughout the country.

Key actors and political economy

The GoE has demonstrated ongoing political commitment to improving maternal and child health: Egypt was one of six countries that supported the 1990 Summit Conference for the Protection and Development of Children, which strongly endorsed safe motherhood programmes and strategies. In 1994, Egypt hosted the International Conference on Population and Development in Cairo. Reducing maternal mortality has also been a key goal of the national five-year plans of the Ministry of Health and Population (MoHP) and women's and children's right to health is enshrined in Egypt's new constitution.

Governance and leadership

The government has provided strong leadership in placing the health and development of children at the forefront of its agenda. Successive ministers of health have provided vision and political impetus for initiating health reforms, and research is fostered within the MoHP.

Challenges and future priorities

Despite demonstrable success to date, Egypt faces a number of constraints and ongoing challenges that if addressed, could help to ensure that its achievement of MDGs 4 and 5a is sustained. These include:

1. Reducing socioeconomic disparities, particularly between Upper and Lower Egypt;
2. Strengthening gender equality;
3. Improving the nutritional status of children;
4. Increasing financing for the health sector to reduce out of pocket expenditure and expand health insurance;
5. Addressing health sector reform to reduce waste and fragmentation and improve quality of services.



2. Introduction

Egypt is one of 10 low-and middle-income countries (which also include Bangladesh, Cambodia, China, Ethiopia, the Lao People's Democratic Republic, Nepal, Peru, Rwanda and Viet Nam) with a high maternal and child mortality burden that in 2012 were on the fast-track to achieve MDGs 4 (to reduce child mortality) and 5a (to reduce maternal mortality).²⁻⁴

The primary objective of this document and accompanying review process was to identify factors both within and outside the health sector that have contributed to reductions in maternal and child mortality in Egypt – focusing on how improvements were made, and emphasizing policy and programme management best practices and how these were optimized and tailored to Egypt's unique context. Methods used for the Success Factor review in Egypt included:

- A literature review based on peer-reviewed and grey literature, policy documents, programme evaluations and sector strategies and plans;
- A review of quantitative data from population-based surveys, routine data systems, international databases and other sources;
- Interviews and meetings with key stakeholders to inform and help validate findings and to identify factors based on local knowledge and experience;
- A review of the draft document by stakeholders and local experts to finalize findings.

It was recognized that it can be difficult to establish causal links between policy and programme inputs and health impact. For this reason, plausibility criteria were used to identify key policy and programme inputs and other contributing factors that could be linked to potential mortality reductions. These criteria included the potential impact of the policy or programme on mortality reduction; that it had been implemented long enough to have an influence on mortality; and it had reached a large enough target population to explain national-level reductions in mortality. Following this, stakeholders reviewed the identified policy and programmes to reach consensus on the key inputs that could have likely influenced mortality. Research is needed to better quantify how policies and programmes contribute to improved health outcomes. More data in this area would enable the analysis to be further refined.

The first draft of this report was developed by local and international experts. Interviews and group meetings with stakeholders were conducted in May/June 2014 to further review, revise and achieve consensus on findings. A final draft was developed and approved by the MoHP in June 2014.



3. Country Context

Overview

One of the most populous countries in North Africa, Egypt is a desert plateau divided by the Nile valley. The country is formed of two distinct regions: Upper Egypt in the south is predominantly rural and has had historically poor health outcomes; Lower Egypt in the north, including cities such as Cairo and Alexandria, is more urbanized and affluent. Around half of Egypt's population of 86 million (2013) is below 15 years of age and less than 4% is above 60 years of age. The majority of young people in Egypt live in poor regions, where health outcomes and access to jobs and education are lower.^{5, 6}

Egypt is classified by the World Bank as a lower-middle-income country. The Egyptian economy relies on four main sources of income: tourism, remittances from citizens working abroad, revenues from the Suez Canal, and oil.⁶ Egypt is in a state of political transition following the 2011 revolution and is currently one of the most vulnerable economies in the region. The gross domestic product (GDP) per capita rose from (purchasing power parity, PPP, Int\$) \$3266 (1990) to \$5795 (2012) (see Table 1: Key country indicators).^{2, 7} Economic growth remains stagnant and unemployment and inflation high. The share of the population living below the poverty line has steadily risen since 2000, particularly among rural inhabitants.^{6, 7} These trends highlight long-term economic inequality between rural and urban populations within the country, and a widening gap since 1994.⁸ Economic growth over the last 20 years has unequally benefited already wealthier populations.⁹ As the overall Success Factors studies show, improvements in GDP, together with progress across health and other sectors, have contributed to improvements in health and development.²



Table 1: Key country indicators*

	INDICATOR	1990-1999	2000-2009	2010-PRESENT
Population	TOTAL POPULATION (millions)	56 (1990)	66 (2000)	86 (2013)
	TOTAL FERTILITY (births per woman)	4 (1990)	3.5 (2000)	3 (2008)
Health Financing	TOTAL HEALTH EXPENDITURE PER CAPITA (PPP, constant 2005 international \$)	110 (1995)	199 (2000)	310 (2011)
	OUT-OF-POCKET HEALTH EXPENDITURE (as % of total expenditure on health)	48 (1995)	58 (2000)	59.5 (2012)
Economic Development	GROSS DOMESTIC PRODUCT PER CAPITA (PPP, constant 2005 international \$)	3266 (1990)	4236 (2000)	5795 (2012)
	FEMALE PARTICIPATION IN LABOR FORCE (% of females age 15-64)	28 (1990)	21 (2000)	26 (2012)
	GINI INDEX (0 equality to 100 inequality income distribution)	32 (1991)	33 (2000)	0.31 (2008-2009)
Health Workforce	PHYSICIANS (per 1000 population)	1 (1990)	2 (2000)	8 (2012)
	NURSES AND MIDWIVES (per 1000 population)	N/A	3 (2005)	4 (2012)
Education	GIRLS' PRIMARY SCHOOL NET ENROLLMENT (% of primary school age children)	84 (1994)	91 (2000)	N/A
	ADULT LITERACY RATE (% of males (M) and % females (F) aged 15 and above)	67(M) 44(F) (1996)	83(M) 59(F) (2005)	82(M) 66(F) (2012)
Environmental Management	ACCESS TO CLEAN WATER (% of population with access to improved source)	93 (1990)	96 (2000)	99 (2012)
	ACCESS TO SANITATION FACILITIES (% of population with improved access)	72 (1990)	86 (2000)	95 (2011)
Urban Planning/ Rural Infrastructure	POPULATION LIVING IN URBAN AREAS (% of total population)	44 (1990)	43 (2000)	44 (2012)
	ELECTRIC POWER CONSUMPTION (kilowatt hours per capita)	675 (1990)	1017 (2000)	1743 (2011)
Human Development Index (Composite of life expectancy, literacy, education, standards of living, quality of life)	VALUE (reported along a scale of 0 to 1; values nearer to 1 correspond to higher human development)	.50 (1990)	.59 (2000)	.66 (2012)
	COUNTRY RANK (2012)	112		
Good Governance (Reported along a scale of -2.5 to 2.5; higher values correspond to good governance)	CONTROL OF CORRUPTION (extent that public power is used for private gain)	-0.07 (1996)	-0.39 (2000)	-0.57 (2012)

*See Table 2 for data on coverage of key RMNCH indicators



4. Key Trends, Timelines and Challenges



In the last two decades, Egypt has made dramatic improvements in RMNCH. It has achieved MDG 4 with a decline of 75% in under 5 mortality between 1990 and 2012.

U5MR was 21 per 1000 LB in 2012 according to UN Interagency modelled data and 28 per 1000 LB in 2008 according to the EDHS^{3,10} (see Figure 1). Egypt is on track to achieve its MDG 5a for reducing maternal mortality. According to recent UN maternal mortality estimates, Egypt has reduced its maternal mortality ratio (MMR) from 120 in 1990 to 45 in 2013, a 62.5% reduction.⁴ The updated estimates also produced a new MDG MMR target of 30/100 000 LB for 2015 (see Figure 2).

Egypt nearly halved U5MR between 1990 and 2000 (from 85 to 45 deaths per 1000 LB) and more than halved the rate further between 2000 and 2012 (45 to 21). Child mortality is inversely related to a mother’s level of education and wealth of the household. A child whose mother has a secondary or higher level of education has almost half the chance of dying than a child whose mother has no education; likewise, for the poorest households, the chance of death is more than twice as high as in the wealthiest households.¹⁰ The present challenge for Egypt is to close regional and socioeconomic disparities, as well as to reduce infant and neonatal mortality.⁶

Figure 1: Trends in childhood mortality rates



The share of under 5 deaths occurring in the first month of life is now 56% in Egypt⁸ (see Figure 2). Causes of neonatal mortality are different from those in older children, related primarily to preterm and complications during birth. Addressing neonatal causes of death will be key to reducing under 5 mortality even further.

The rapid decline in MMR is likely attributed to a number of factors, including contraceptive use among married women which rose to 60% in 2008 from 38% in 1988, and increased rates of antenatal care (ANC) (66%) and skilled attendance at birth (79%) (see Table 2). The total fertility rate (TFR) reduced from more than 4 in 1995 to less than 3 in 2011.⁷

Although Egypt has a sufficient number of health providers, the health workforce is distributed unequally, with a particularly low level of providers in rural Upper Egypt. Overall coverage of births attended by skilled health workers is around 80%, compared to just over 40% between 1990 and 1995. However, the poorest rural residents still have just over 60% of births attended by skilled staff, compared to over 90% in wealthy urban parts of the country.¹⁰



Figure 2: Fertility rate and maternal mortality ratio, 1990-2013

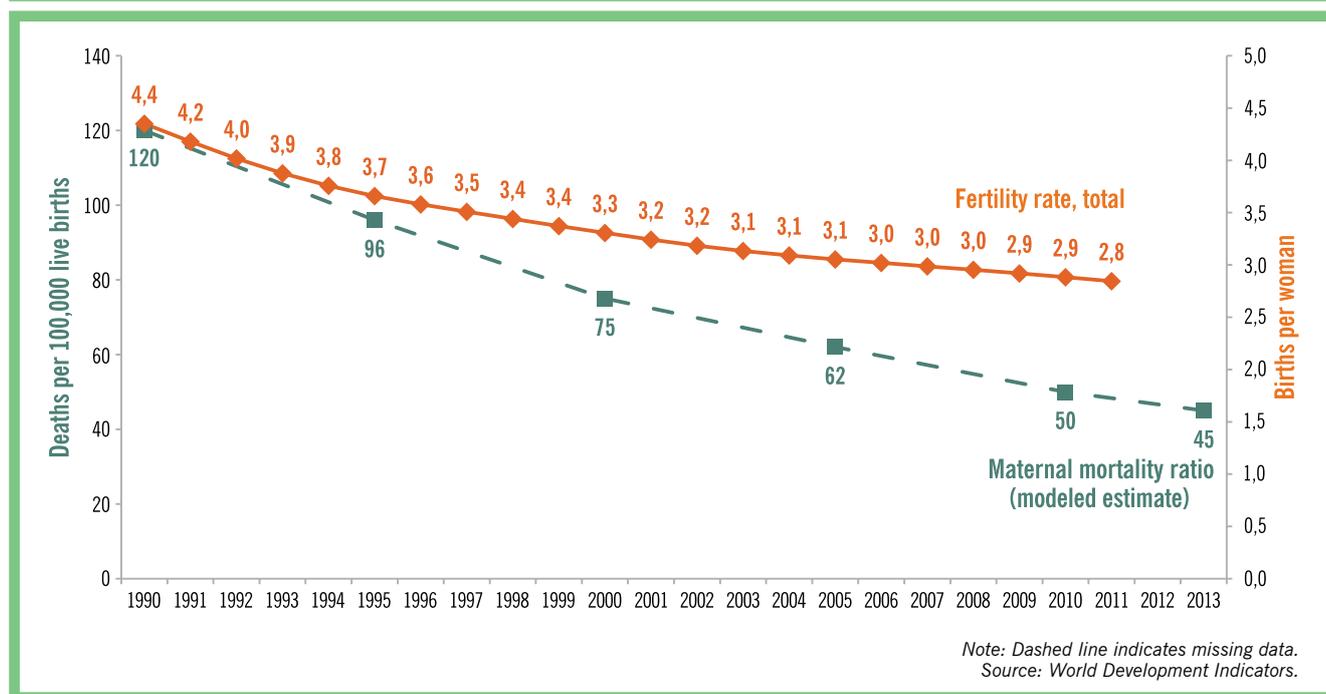


Table 2: Key RMNCH coverage indicators

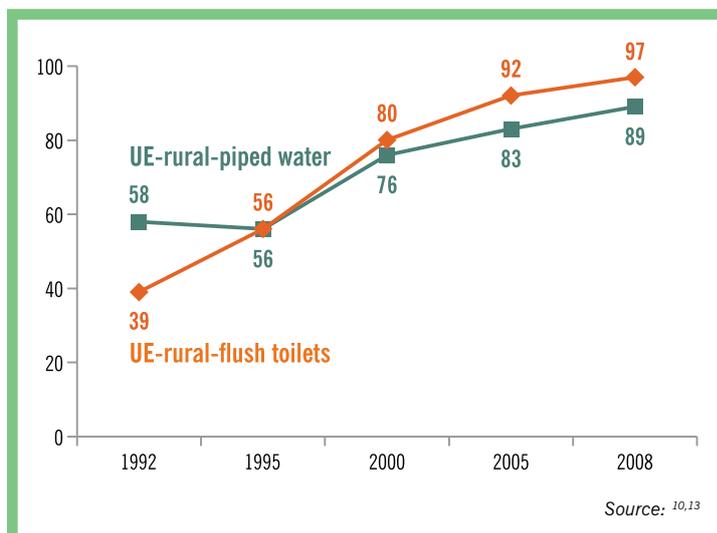
CONTINUUM OF CARE STAGE	INDICATOR	MOST RECENT AVAILABLE	SOURCE
Pregpregnancy	DEMAND FOR FAMILY PLANNING SATISFIED (% of women age 15-49 with met need for family planning)	84 (2008)	DHS 2008
	ANTENATAL CARE (% of women attended at least 4 times during pregnancy by any provider)	66 (2008)	DHS 2008
Pregnancy to postnatal	SKILLED ATTENDANCE AT BIRTH (as % of total births)	79 (2008)	WDI
	ANTIRETROVIRALS FOR WOMEN (HIV-Positive pregnant women to reduce mother-to-child transmission)	n/a	
	POSTNATAL CARE FOR MOTHERS (% of mothers who received care within two days of childbirth)	65 (2008)	DHS 2008
Newborn and childhood	INFANT FEEDING (Exclusive breastfeeding for first six months)	53 (2008)	DHS 2008
	IMMUNIZATION (Children ages 12-23 months receiving DTP3)	96 (2011)	WHO and UNICEF Estimates of National Immunization Coverage (WUENIC) 2012
	PNEUMONIA (Antibiotic treatment for pneumonia)	58 (2008)	DHS 2008

Source: World Development Indicators, UNDP, World Bank (Worldwide Governance Indicators).

It is difficult to establish direct linkages between implemented activities and impact indicators, such as MMR and U5MR. The contribution of various initiatives such as infrastructural improvements, girls' education, higher coverage levels of ANC and the presence of skilled birth attendants is, therefore, difficult to quantify.¹¹ In general, activities take from 3-5 years to have a demonstrable impact on maternal mortality and related outcome indicators.¹² Impressive declines in MMR and U5MR in Egypt may also be due in part to rapid improvements in sectors outside of health such as better access to running water and sanitation. While not yet universal, especially in the poorest rural areas of the country, Egypt has achieved widespread access to an improved water source and sanitation (see Figure 3 and Table 1).

In 2001, the MoHP identified the improvement of obstetric care, increasing access to family planning and the education of women and families about seeking medical care as key to further reductions in maternal mortality.¹⁴

Figure 3: Trends in access to improved water and sanitation in rural Egypt, 1992-2008



One challenge in assessing Egypt's progress to date is limited data beyond 2008. This reduces the understanding of how and what has contributed to health gains over the last decade. Indicators indirectly impacting health outcomes offer some insight into

those factors known to influence health outcomes, including education and gender equality. Place of residence and income levels are still strongly correlated with coverage of maternity care, with only 49% of women in rural Upper Egypt receiving regular antenatal care, compared to 75% in Upper Egypt urban areas; likewise, only 40% of women in the lowest income quintile compared to 90% in the highest.⁹ Similarly, the share of births attended by a medical provider is significantly lower among the country's poorest (55%) compared to the wealthiest (97%).⁹ Poor quality obstetric care has also been a major bottleneck to reducing the number of maternal deaths: Egypt has an insufficient number

of facilities, and delays in the provision of basic emergency care are frequent. For example, in the early 1990s no protocols for dealing with obstetric emergencies existed, and most emergencies were being managed by junior staff. This led to women's perception that the quality of public sector services is poor and became a barrier to the use of antenatal and delivery services.¹²

Political and economic crises may also have an impact on the relative costs and access to essential care,¹² thus the current period of political transition in Egypt may create further challenges to reducing mortality among women in children in the near future.



Timeline with key policy inputs

Pre 1990	1991-2000	2001-2013
1956 Compulsory DPT immunization	1992-1993 Maternal Mortality Study	2003 National Growth and Poverty Eradication Strategy includes initiatives of improving referral systems and increasing female service providers
1973 Compulsory BCG vaccination; National Population Policy	1993-2009 Ministry of Health and Population created Healthy Mother/Healthy Child Project	2004 Regulation on the Promotion of Maternal and Child health
1977 Compulsory measles vaccination	1996 Law of the Child; Mother Care Project	2008 Female genital mutilation / circumcision criminalized
1982-1991 National Control of Diarrheal Diseases Project	1996-2005 World Bank's Population project	
1984 Expanded Program on Immunization; Child Survival Project National Population Council established	1997 Integrated Management of Childhood Illness Programs	
1987-1995 Acute Respiratory Infections Programs	1997-2005 Health Sector Reform Programs; Maternal Mortality surveillance system established (2002)	
1988 National Council for Childhood and Motherhood formed	2000-2010 Second Decade of the Egyptian Child	
1989-1999 First Decade of the Egyptian Child		
1990-1996 National Child Survival Project		



5. Health Sector Initiatives and Investments

Health financing and donor alignment



Egypt's health care system is primarily managed, financed and provided by public entities (including ministries of health and education, the military, and police), Non-Governmental Organizations (NGOs), faith-based charity organizations, and private health facilities.

In 1994/95, Egypt became one of the first low- or middle-income countries to conduct a National Health Account (NHA) study, with updates conducted in 2001/02 and 2007/08.¹⁵ Findings from the NHA 2008/9 study showed that Egyptian households bear nearly 72% of health care spending (up from 62% in 2001/02) while the government pays less than 25%.¹⁶ Compared with other middle-income countries in the Middle East and North Africa, Egypt had the highest financial share of health expenses borne by households and the lowest share borne by government. It spent 4.3% of its government budget on health, down from 5% in 2001/02. The NHA findings have been used to advocate for an expansion in insurance coverage and public spending on health.

The NHA included a household survey conducted in 2010 in collaboration with Egypt's Central Agency for Public Mobilization and Statistics that details how and where families spend money on health.¹⁶

The survey showed that the poorest Egyptians still face sharp disparities in health spending. For example:

- Higher-income Egyptians use health care twice as much as the poorest except for preventive care, which all income levels use equally;
- The poorest spend a significantly higher proportion of household income on health as compared with the highest-income segment.

Other findings include:

- Although Egyptians in rural areas still have less access to health care than Egyptians in urban areas, the GoE has successfully reduced that differential. Those in rural areas actually use preventive and acute care more often than their urban counterparts;
- GoE policies appear to have greatly reduced the disparity between males and females with regard to access to services;
- Those who are insured are spending less per capita on health care than those who are uninsured.

Half of the country's population – in particular, civil servants, government retirees and students – is covered by health insurance through the Health Insurance Organization (HIO). Despite efforts to provide universal coverage, out-of-pocket expenditure at the point of service in both public and private facilities remains high. As a response, Egypt is rolling out a new insurance scheme to achieve universal coverage, based on a family physician model which will separate financing from service provision.⁶

Health infrastructure



Egypt has a good health infrastructure with an extensive primary care network.⁶ The MoHP's primary health care facilities provide maternal and child health services, communicable disease control, environmental health services and health education, among other services. There are approximately 5000 public primary care facilities and 1100 public hospitals. Egypt's private sector network (which includes general practitioners, laboratories and pharmacists) plays an important role in delivering health care and manages private clinics as well as specialized hospitals.⁶

Egypt has also invested in improving its emergency referral system by instituting ambulance services. 2000 new ambulances have been added since 2006. It has also added hotlines for handling emergency phone calls. One of these is particularly for emergencies related to newborns and is linked to an ambulance service equipped with specialized staff and a nursery.

The United Nations Children's Fund (UNICEF) has supported the MoHP to implement the Baby Friendly hospital programme and 210 hospitals are now certified as baby friendly.

Most Egyptians have access to a health clinic; even in rural areas most women live within 30 kilometres of a government hospital. Underutilization of healthcare

services, therefore, is due less to physical access and more to socioeconomic, educational or cultural factors.¹⁷ For example, lack of ANC or poor-quality ANC were avoidable factors that contributed to approximately one third of maternal deaths in Egypt in 2000—this is particularly the case among the country's poorest and least educated populations, which are primarily in rural areas.¹⁷

Reducing newborn deaths requires investment at the community level and not only in advanced medical facilities. For example, due to an aggressive vaccination campaign by the Ministry of Health between 1988 and 1994, neonatal tetanus declined by 85% in Egypt. In particularly high-risk areas, elimination strategies were developed and deployed using mobile teams, supplementary vaccination sites, and intensive news media promotion of vaccinations to reach all women of childbearing age. This simple and cost-effective intervention reduced neonatal mortality as well as incidence of maternal deaths from tetanus.¹⁸

Other actions that did not require extensive financing or infrastructure may also explain the substantial progress made in the early year; for example, MMR was lowered in the poorest areas due in part to intensified efforts under Egypt's Safe Motherhood Programmes (SMPs) to reduce delays in recognizing and seeking treatment, and by ensuring those in need receive emergency care.¹¹

Evidence shows that when a country has reached a certain level of mortality, moving levels even lower, becomes an increasing challenge.¹² Even when health facilities are present, if they are not well functioning, well-stocked, and accessible, their impact is reduced. For example, maternal hemorrhage remains a leading cause of death among women in Egypt, despite significant achievements over the past 20 years.¹¹ Management of maternal hemorrhage requires appropriately equipped facilities with the correct blood type, supplies and equipment as well as a skilled birth attendant. Although institutional deliveries in Egypt increased by more than 80% between 1992 and 2000 (the period during which MMR was also dramatically reduced), blood shortages in 2000 were still among the most frequent avoidable health facility factors, contributing to 16% of maternal deaths and playing an especially important role in deaths from hemorrhage.¹⁴



“Investing in its children is the best investment Egypt can make”

Minister of State for Family and Population 2009–2011²⁰



Human resources for health



Delivering quality RMNCH services requires an adequate number of skilled health workers. The number of doctors per 1000 population has increased significantly since 1990, with 2.8 doctors and 3.5 nursing and professional nurse midwifery personnel per 1000 population in 2010 (See Table 1: Key Country Indicators).⁷ Although Egypt’s workforce is strong, imbalances exist in terms of expertise, location and accessibility particularly in Upper Egypt and the border governorates.¹⁹ The rural southern governorates lack adequate staff (an average of 1.5 nurses per health unit in Upper Egypt compared to 29 nurses per unit in the delta) and also experience high staff turnover leading to disrupted or nonexistent services. Additionally, 55% of doctors are female who tend to refuse to work outside of their governorates for cultural reasons. The MoHP, together with the United Nations Population Fund (UNFPA), UNICEF and USAID, has undertaken initiatives to increase training and improve equitable distribution of the health workforce.

The MoHP implemented an integrated set of interventions as a part of the Healthy Mother/Healthy Child Project (1993–2009) to improve the quality of obstetric and emergency care; for instance, competency-based training was conducted to improve skills of health personnel and to train nurses in midwifery skills. The MoHP also has an ongoing training program for nurses to become skilled midwives and has significantly improved the training and professionalism of its secondary-level nurses.

Outcomes monitored using evidence



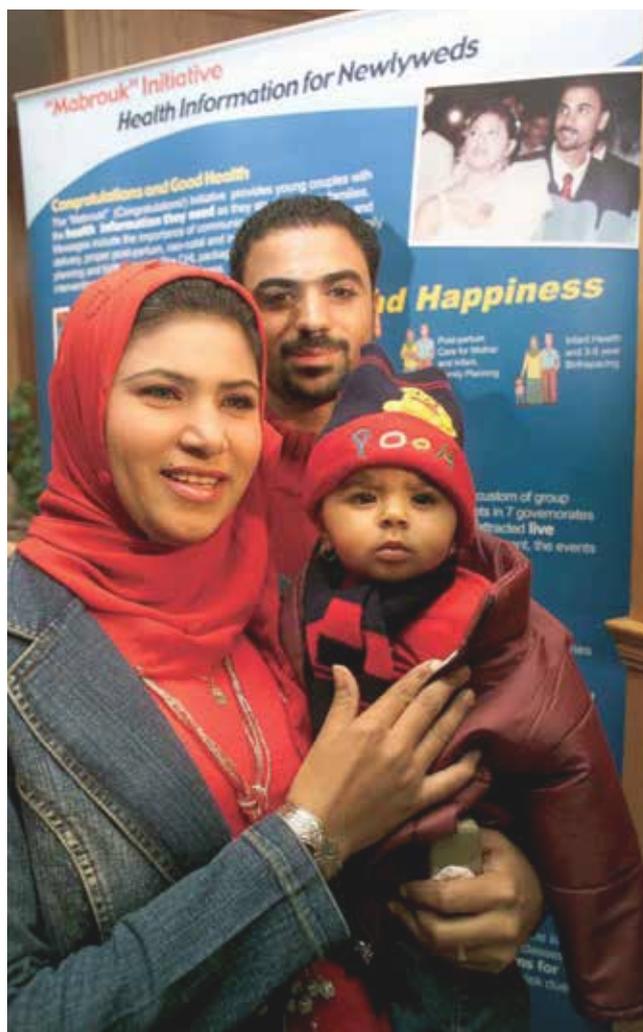
Egypt uses data gathered through health management information systems to inform health sector strategic plans, monitor results, assess progress and facilitate priority setting, planning and resource allocation. The national health information system is maintained by the MoHP, which collects data at the local, regional, district and governorate level.

Information has played a key role in Egypt’s success in reducing maternal and child deaths. Data obtained from the 1992 and 2011 National Maternal Mortality Studies and the Maternal Mortality Surveillance System, as well as data from the EDHS have helped to understand levels and causes of maternal mortality throughout the country.²¹ These studies highlighted key causes of maternal mortality related to substandard care from obstetricians. This resulted in a number of efforts to improve the quality of delivery care, including the National Child Survival Project (1990-1996), the Mother Care project (1996-98), the Healthy Mother/Healthy Child Project (1998-2004) and the UNICEF project (1996 to present). These have successfully reduced maternal mortality,²² particularly in poorer Upper Egypt. The UNICEF project is establishing perinatal care centres in Upper Egypt, targeting two million children under 5 and their mothers. The project supports the national integrated management of neonatal and childhood illnesses and includes training for nurses, paediatricians and obstetricians on clean delivery and neonatal resuscitation.²¹

The establishment of a maternal mortality surveillance system in 2001 at all levels of the health system has helped identify, analyse and inform actions to reduce the number of maternal deaths. This system helped to build government capacity to independently conduct studies on maternity care and formulate strategies for reducing risk before and after delivery.²³ The MoHP also established Safe Motherhood Committees to review and investigate maternal deaths.

Egypt developed a national health sector plan and accompanying monitoring and evaluation plan for 2007–2011, which included specific RMNCH indicators. An annual review is also conducted on the performance of the health sector plan. A rapid assessment of the status and practice of the civil registration and vital statistics system was conducted in 2011, which included two chapters on maternal and child mortality.

Health information has also been made publicly accessible helping to facilitate transparency of results and enable a wider range of stakeholders to use information to improve health services. The MoHP official website publishes vital statistics and reports on an annual basis, and information is disseminated periodically to interested parties.²⁴



Political prioritization of essential health interventions

Egypt has made remarkable gains in child survival with relatively limited resources. Public-health programs that are well planned and implemented can make a large difference. In 1992, for example, the MoHP expanded health insurance to cover all school children through the School Health Insurance Program (SHIP). It was a domestically driven initiative with no donor participation and effectively increased health insurance coverage from 3.75 million in 1988 to over 15 million by 1995—71% of all school-aged children.²⁵ This initiative was the result of strong political commitment and acceptance by key stakeholders, including from the Minister of Health and by Egypt's then First Lady. The school health insurance program resulted in greater increases in insurance coverage for the poor than for those who were economically better off, and ultimately increased use of services in poor communities.²⁶

Immunization

The Expanded Program on Immunization (EPI) increased full vaccination coverage against six vaccine-preventable diseases from 67% in 1992 to 92% in 2008 for children aged 12–23 months. Egypt also prioritized tetanus vaccination among newborns (see above) and increased measles immunization coverage from 86% in 1990 to 96% in 2011.⁷

Infection Control

In 2003, Egypt introduced a national infection control programme to improve the quality of care. National infection control guidelines were developed which included pre-service and in-service training. A national Infection Control Department was established with a focal person in each facility.

Family planning services

The Egyptian government prioritized family planning through the National Population Policy in 1973, launched campaigns and invested in generating ownership of service provision among health service providers. Since the 1994 International Conference on Population and Development, Egypt has integrated family planning into its maternal and child health programme. The total contraceptive prevalence rate (CPR) for all methods increased from 18.8% in 1976 to 60.3% in 2008, with the use of contraceptives rising more rapidly in rural areas.¹⁰ These programs are also associated with a decline in the TFR, from 4 in 1990 to 3 in 2011.⁷

Although ANC coverage varies nationally, it increased from 28% in 1995 to 74% in 2008.¹⁰ ANC has been found to have a strong influence on the use of modern contraception.¹⁴

The World Bank's Population Project (1996–2005) has also been instrumental in encouraging utilization of family planning through women's empowerment.²⁷ One of the objectives of the project was to stimulate demand for smaller families and family planning services in high-fertility areas of rural Upper Egypt through socioeconomic improvement (micro credit, illiteracy eradication activities, and home visits using a network of Social Change Agents). On average, CPR increased from 44 to 55% between 2000 and 2005 at the village level. There were also improvements at the district level. Anecdotal evidence from the project suggests that it had a positive impact on the women's status and their families. Positive changes in male attitudes were also noted, especially because of microcredit.²⁷

High rates of adolescent fertility contribute to higher levels of maternal mortality. Adolescent fertility has declined in Egypt but not as quickly as some other countries in the region. Early marriage, low educational attainment of women, poor welfare status and high spousal age difference constitute the major socioeconomic and socio-cultural factors facilitating adolescent childbearing in the country.²⁸

Integrated management of childhood illness (IMCI)

The National Acute Respiratory Infection program was initiated in 1990 as a part of the MoHP and United States Agency for International Development (USAID) supported Child Survival Project. Pneumonia was a leading cause of infant and child mortality and the aim of the program was to reduce infant mortality caused by acute respiratory infection. Acute respiratory infection-related infant mortality declined by 35% between 1990 and 1996, 14% between 1996 and 2000, and a further 12% between 2000 and 2004. IMCI was also incorporated into the core curriculum for pre-service medical and nursing training.

The IMCI strategy was adopted by the MoHP in 1997 as a comprehensive approach integrating existing vertical programs and expanding to include other cost effective interventions. IMCI improved the quality of primary health care services offered to children, and it has been associated with doubling the rate of reduction of under 5 mortality in districts where it has been implemented.



Legal and financial entitlements, especially for underserved populations

Egypt has made explicit commitments and implemented strategies to promote equitable access to health care. The Egyptian government has targeted Upper Egypt where the burden of maternal morbidity and mortality is higher. From 1996–2000, maternal interventions were more extensive in Upper Egypt than in Lower Egypt.¹¹ Interventions targeted at Upper Egypt include the Mother Care Initiative (1996) and the Healthy Mother/Healthy

Child Programs (1993–2009) (see Health Sector Spotlight). In 2008, amendments were made to the Law of the Child to include a rights-based approach to ensure Egyptian children's right to education, health, social care and right to family. In 2012 additional legislation was passed to extend insurance coverage to single parent households and all children under five years of age.

Health sector spotlight

HEALTHY MOTHER/HEALTHY CHILD PROGRAMME (1993-2009)

The Healthy Mother/Healthy Child Programme (1993–2009) focused on reducing the risk factors of maternal and neonatal mortality in nine governorates of Upper Egypt – a region associated with poor health outcomes. The programme was designed to systematically address the major causes of maternal deaths in areas with the highest maternal mortality. Interventions were designed and implemented using an integrated approach involving policy, technical management and community-based components. It was implemented by the MoHP with assistance from USAID and John Snow Inc.

These interventions contributed to 2.6 million females of reproductive age and approximately 660 000 infants born in the nine governorates of Upper Egypt each year having better access to essential obstetric and neonatal care. Medically assisted delivery increased from 38% in 1988 to 80% in 2008.²⁹ Supporting strategies included: a policy to promote medical providers and phase out traditional birth attendants, midwifery training for nurses and improved quality of care. As noted above, Egypt's MMR declined from 120/100 000 in 1990 to 45/100 000 in 2013.⁴

The first National Maternal Mortality Study (1993) determined that the majority of maternal deaths across Egypt were avoidable. In response, an essential package of maternal and child health services and standards were developed for antenatal and postnatal care, delivery, obstetric care, neonatal care, and preventive services for child health. It was accompanied by a wide range of activities to raise standards through improved training and supervision, and by upgrading facilities and equipment.





6. Initiatives and Investments Outside the Health Sector

Education



Egypt has demonstrated a strong commitment to education as a key development tool by establishing and meeting national and international targets, including MDG 2 for universal primary education and gender equality in primary, secondary and tertiary education,¹³ and by introducing legislation and national programmes for universal and free education. Programmes include the Community School Initiative (1992), (see Multi-sector Spotlight); One Classroom Initiative (1993); and Girls Education Initiative (2000). Girl's primary school net enrolment was at 87% as of 2000.⁷ (see Table 1: Key Country Indicators). The youth literacy rate (15–24 years of age) also increased from 73% in 1996 to 86% in 2007, alongside a primary education completion rate that reached 98% in 2011. Adult literacy rates (aged 15 years and above) improved significantly from 67% in 1996 to 80% in 2010 for males, and from 44% to 64% for females.⁷

While crucial legal steps have been taken to ensure all citizens receive mandated educational rights, evidence shows that inequality remains a key factor in under-education in the country. For example, females living in rural, poor areas are not being educated at the same rate as boys. In rural Upper Egypt as many as 43% (2008) of women had no formal education (down from 62% in 1992), compared to 15% (2008) in urban Lower Egypt (down from 24% in 1992).¹³ Despite investments from the GoE, civil society and the private sector, education is not leading to the expected returns: dropout rates are high, many children are never enrolled, and the poor and girls remain at a distinct disadvantage either due to lack of enrolment or early departure from school to join the low-wage labour force.⁵ Similarly, literacy rates in urban areas (83% in 2008) are nearly double those in rural areas (43% in 2008), although the difference has decreased since 2000 (68% vs. 29%).³⁰

Nutrition



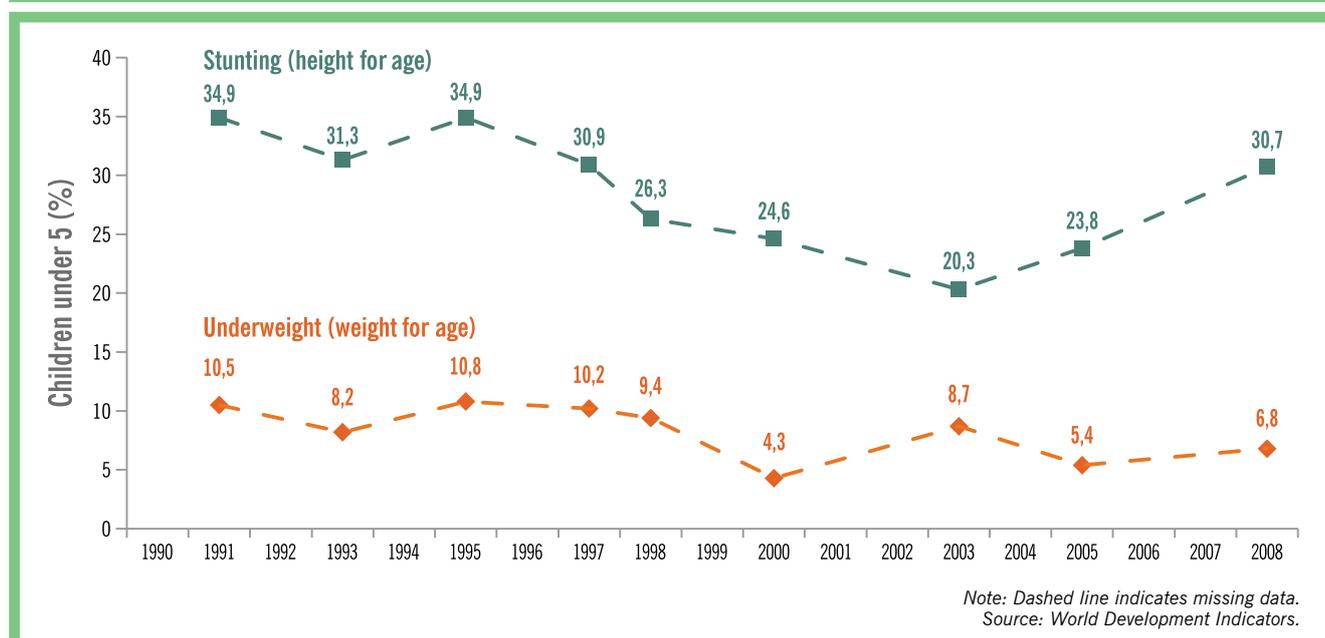
Egypt is on track to meet MDG 1c, to halve the proportion of people suffering from hunger. It has sought to improve the nutritional status of children through the promotion of exclusive breastfeeding, fortification of food, and providing relevant counselling and distribution of subsidized milk formula for women who cannot breastfeed their children. In spite of this achievement, Egypt has also been identified as one of the high burden countries for child malnutrition and is showing a deteriorating trend of nutrition indicators. Analysis of data from the last two DHSs shows that between 2005 and 2008 stunting increased from 23% to 29%, wasting reached a long-term high of 7%, and the prevalence of underweight children rose to about 6%¹⁰ (see Figure 4).

Since early 2008 UNICEF has supported the MoHP to pilot an initiative to accelerate national efforts to address neonatal mortality and malnutrition. The “Integrated Perinatal Health and Child Nutrition Programme” (IPHN) has four components: promotion of antenatal care, skilled birth attendants, postnatal care (PNC), and nutrition. The IPHN model works on five levels to improve maternal, newborn and child health (MNCH): the primary, secondary and tertiary care levels; a family and community support level to promote behaviour change for healthy practices; and nutrition and hygiene at the household and community levels with a built-in referral system.

A nutrition Landscape Analysis (LA) in 2012, the first in Arab countries, was commissioned by the MoHP with support from UNICEF Egypt Country Office to complement its 10-year Food and Nutrition Policy and Strategy (2007–2017).³¹ The LA describes the extent of the malnutrition problem (including rising obesity rates) and possible solutions to optimize outcomes with available resources. The LA approached the malnutrition problem through four axes: (1) identifying the nature and the scale of nutrition problems; (2) assessing government willingness and commitment to act at scale; (3) assessing capacity to act at scale; (4) factors enabling or hindering the commitment and capacity to act at scale.³¹

The LA report provided clear, immediate, medium and long-term recommendations and covered the most critical areas of nutrition in Egypt. These include coordination, funding, programme planning, human resources, services, and information systems. Commitment from the government will be required to accelerate and scale-up action on nutrition in order to maintain and continue the downward trend in child mortality.

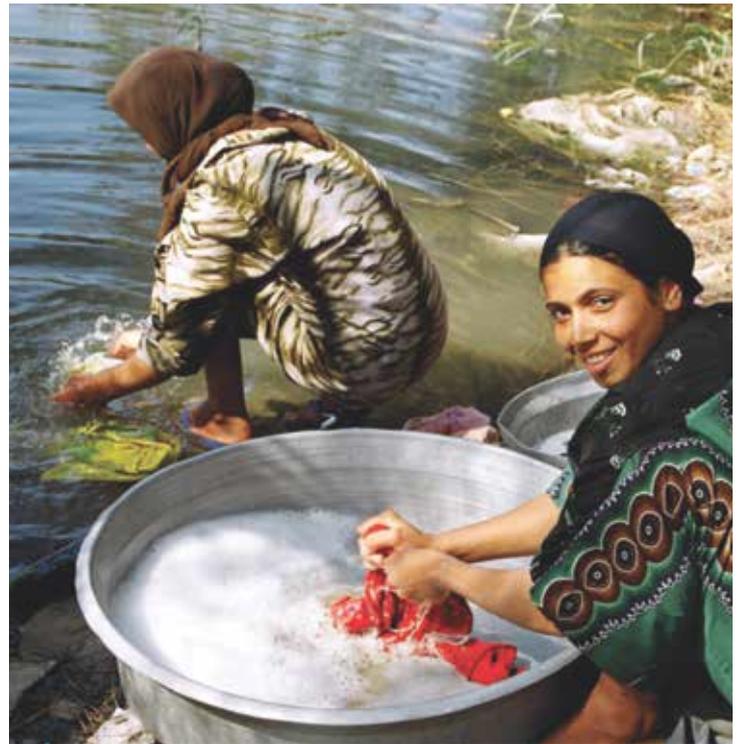
Figure 4: Percent of Egyptian children under 5 who are stunted and underweight, 1990-2008





Infrastructure, water supply and sanitation

Access to safe drinking-water and improved sanitation are associated with better health outcomes. Egypt has historically had relatively high rates of access to improved water and sanitation facilities and in recent years these have further improved. Egypt has met its MDG 7c target of halving the proportion of the population without sustainable access to safe drinking-water and basic sanitation.¹³ The proportion of people with access to improved water sources steadily increased from 93% in 1990 to 99% in 2011, and access to improved sanitation facilities also increased from 72% to 95% over this period⁷ (see Table 1: Key Country Indicators). In rural areas, 75% of the population have a household connection to piped water.⁶ Egypt also has a well-developed infrastructure of roads, and coupled with Egypt's high population density, this ensures both urban and rural populations are within close reach of health facilities.¹²



Political priority on women's and children's issues

The National Council for Children and Mothers (NCCM) was established as a parastatal organization in 1988 with a mandate to address the needs of children and mothers beyond basic health needs. The NCCM addresses the needs of abused and handicapped children, girls' education (particularly in remote areas), and the prevention of trafficking of girls and women. The NCCM also regularly reviews legislation pertaining to women and children.

The National Council for Women was established in 2000 with a mandate to support women's development and empowerment in social and economic programmes throughout Egypt. The council is responsible to review all legislation and agreements related to women.

Use of Media

Egypt has historically used television and radio as a medium to raise awareness and promote maternal and child health messages. Local stations were required to provide free time to broadcast key health messages multiple times per day. At one point, 250 messages per day were aired on how to identify and treat child diarrhoea. Although difficult to measure, many credit the drop in severe diarrhoea cases to this media campaign.

Innovation and research

The National Academy of Science and Technology is the main organization for planning national research and formulates five-year research plans on major health problems prioritized by the MoHP and the Health Council. The National Research Centre (NRC) identifies research topics and implements research with local and international donor funding. The Community Medicine Research Department within the NRC works closely with the National Academy of Science and Technology although they are separate institutions. The MoHP has also established a Scientific Committee for Health Research to assess health needs at all levels of care, assess common health problems in the country, and monitor and evaluate health programs.³² The MoHP pursues a policy of building linkages between health research programs and policy formulation by decision-makers. Examples of research activities to promote health of women and children include:

- Technical auditing to identify gaps in resource allocation to build a national master plan;
- Epidemiological and demographic studies to identify health priorities and assessments to identify training needs of family practice, referral and integrated programs.

Innovative approaches to adapt and scale up service delivery models have also been critical to progress. In Egypt, adding quality of care indicators such as patient satisfaction to performance based financing (PBF) resulted in increased use and better quality of family planning services.³³

Over the past ten years, a series of studies were conducted by FHI 360 in collaboration with the MoHP, the National AIDS Program and other organizations on women and girls at risk of contracting HIV/AIDS such as female sex workers (FSWs), female injecting drug users (IDUs) and female street children.

Defining vulnerable women and girls' high-risk behaviours and gender based barriers that limit their access to HIV prevention, treatment and care services are factors requiring increased coordination through the Network of Associations for Harm Reduction in Egypt. Providing a standardized and culturally adapted comprehensive package of harm reduction services tailored to the needs of at risk populations will help Egypt maintain its low HIV prevalence in the coming years.

Spotlight of a sector outside of health

COMMUNITY SCHOOL INITIATIVE

The Community School Initiative was financed and launched by UNICEF and the Egyptian Ministry of Education (MoE). It was implemented in Upper Egypt through local NGOs in three phases from 1992 through 2006. It aimed to create a model for increasing access to primary education in remote areas, with a special focus on girls. The schools offered courses outside of regular schools hours, including non-formal adolescent education. Young women were recruited locally and trained as facilitators.

By 2003, there were 227 community schools in three governorates with 5500 students in total, of whom 66% were girls. The community school model was a success in terms of students able to pass official MoE examinations in the third and fifth grades. The schools were considerably more cost-effective than public schools at producing fifth-grade completers who could pass the national examination. Lessons learned from the initiative included methods for providing effective education to girls and children in remote areas, and how to engage students, teachers and communities in active learning and democratic decision-making.^{34, 35} The community schools have also been credited with helping to prevent early marriage and reducing child labour. The curriculum also incorporates basic health messages during school activities.

Based on the initial experience, the NCCM has established 5400 "one-classroom schools for girls" with approximately 15 000 students, mainly in Upper Egypt to serve more remote areas.



7. Key Actors and Political Economy



Remarkable progress in reducing maternal and child mortality has been made and continues to be made in Egypt. The momentum for this success has, in part, its beginning in the country's efforts to reverse high population levels and an imbalance in population distribution. Policies to improve maternal and child health, family planning, and education, were just some of seven major programs implemented throughout Egypt to slow population growth. These programs had political commitment from the president and large budget allocations. A fatwa issued by the Grand Mufti of Egypt in support of family planning helped reverse traditional views that family planning was forbidden by the Koran, also helping to reduce fertility rates in the country from over five in 1980 to less than three in 2011.³⁶

The GoE has demonstrated continued political commitment to improving maternal and child health. Egypt was one of six countries that supported the 1990 Summit Conference for the Protection and Development of Children; the conference strongly endorsed safe motherhood programmes and strategies. In 1994, Egypt hosted the International Conference on Population and Development in Cairo. Reducing maternal mortality has also been a key goal of the national five-year plans of the MoHP.

As political momentum was building in the early 1990's, the results from the Maternal Mortality Survey (MMS) 1993 provided an important platform and momentum from which comprehensive programs were launched to address not only maternal but also child health.²⁹ An enabling policy environment had been created under which investments in social and economic development were being made. This enabled the GoE to tackle health-system wide problems including making linkages between antenatal, delivery and postpartum care, strengthening referral systems, ensuring improved oversight and regulation of the private sector, reducing deficiencies in hospital management and systems, and better training.¹²



In 2003, the GoE established the Social Fund for Development which provides funding for poor villages and was supported by the president, first lady and family.

Key to Egypt's success has been support from external donors. Specific projects and interventions have been implemented through the MoHP/Maternal and Child Health Department with support from USAID, UNICEF, UNFPA, WHO, European Union (EU), the Population Council, and other international donors. For example, the MoHP National Child Survival Project (1985-1996), funded by USAID, implemented interventions that contributed to improved quality and use of child health services as well as antenatal, delivery and postpartum health services throughout Egypt.²⁹

Despite significant reductions in maternal and child mortality throughout the 1990's, inequality based on geography and income has driven remaining pockets of high fertility, poverty and inadequate access to quality health care. Assistance from USAID in implementing the Healthy Mother Healthy Child project between 1998 and 2005 helped to strengthen, integrate and decentralize health services in order to consolidate, improve and sustain improvements in maternal and child health across the country.²⁹

Recent evidence from Egypt suggests the importance of professional training networks and international policy in further reducing maternal mortality in the country.¹¹

8. Governance and Leadership

The GoE has provided the leadership to direct progress in reducing maternal and child mortality, and has supported health sector reform. The first (1989–1999) and second (2000–2010) Decades of the Egyptian Child placed children at the forefront of the development agenda. The government has invested in developing local leadership through a Leadership Development Programme, which aims to improve the quality of services by generating ownership of service provision among providers.³⁷ The programme has shown positive results.

Successive Ministers of Health have provided vision and political impetus for initiating health reforms and have led donor collaboration and harmonization. For example, in recent years, the MoHP has created an improved climate for investment and private sector participation and investment.³⁵

In addition to the government, actors across society have played leadership roles in Egypt's progress. In 1937 there were public religious concerns about family planning methods. A group of university professors formed the "Happy Family Society" and worked with religious leaders to obtain a fatwa (religious declaration) that Islam is not against family planning.³⁸ This paved the way for greater social acceptance of population policies and demand for family planning services. These demand-side considerations, including patient satisfaction continue to be an important factor in the utilization and quality of family planning services.³³

Article 18 of the new Egyptian constitution explicitly states citizens' right to health, particularly women and children, and commits to providing access to integrated quality health services. It sets a measurable target for health sector investment of increasing government health expenditure to at least 3% of the GDP.



9. Challenges and Future Priorities

Despite major achievements in the past, Egypt faces constraints to further reductions in maternal and child mortality. Addressing the following challenges many of which have been identified in the National Acceleration Plan for Child and Maternal Health, 2013-2015,^{39, 40} will help to accelerate progress.

Health sector reform

The current fragmentation of the health system needs to be examined and market failures in service delivery, quality and safety, and prevention and public health addressed if Egypt is to reap further gains in maternal and child health. Current issues plaguing the system, such as over treatment and waste, are driven by low salary levels where 80% of a health worker's income is earned beyond their salary through activities outside the public sector system. An example of over treatment is the caesarean section rate, which is over 50% in some institutions; far exceeding necessary and safe levels. Another area to address under reform is policy and regulation of the private sector to ensure their compliance with global and national standards of care.

The role and deployment of community health workers also bears review. Clear evidence exists for using community health workers to promote healthy behaviours at the household and community level and for provision of basic primary care services where shortages of more skilled health workers exist.⁴¹

Health Information system strengthening

Lack of complete and reliable data affects the use of health information for decision-making. Deficiencies in quality, timeliness and use of data need to be addressed so that the MoHP and partners can continue to plan and target strategies toward the most in need. This should continue to be complemented by appropriate research, evaluations and assessments.

Introduce new vaccines

Current child immunization coverage is high but Egypt could achieve more gains in reducing child mortality by introducing the pneumococcal and rotavirus vaccines.

Health sector financing

The challenges in health investment in Egypt are important. Currently 72% of all health expenditure is of out-of-pocket payments creating an obstacle for access to care for many. For others, who have access to care but have to allocate a substantial amount of household resources to health care, these payments can push them into poverty. In order to cut this illness-poverty cycle, effective government investment in health will need to increase. For the last two decades Egypt's government health expenditure represented less than 1.5% of GDP, half of that of the constitutional target of 3% of GDP. Reaching the constitutional target of government health spending will be central to any strategies for reform since public spending will be the key to developing an inclusive and equity driven health sector.

The Health Insurance Organization (HIO) provides health insurance to employees, students, widows, pensioners, female-headed households, newborns, and pre-school children, and covers about 58% of Egypt's population. The GoE goal is to increase HIO coverage to 80% of both government and private sector health services. The organization is committed to provide primary, secondary, tertiary and rehabilitative services but is currently constrained by limited revenues to provide adequate services to the targeted groups, resulting in high out-of-pocket payments for private services.

Health system strengthening

Supplies of basic medicines and commodities and supply chain functioning have been affected by the recent political upheaval. This and other health systems issues such as referral systems and emergency transport, will need to be addressed very quickly to prevent further erosion of services.

Socioeconomic disparities

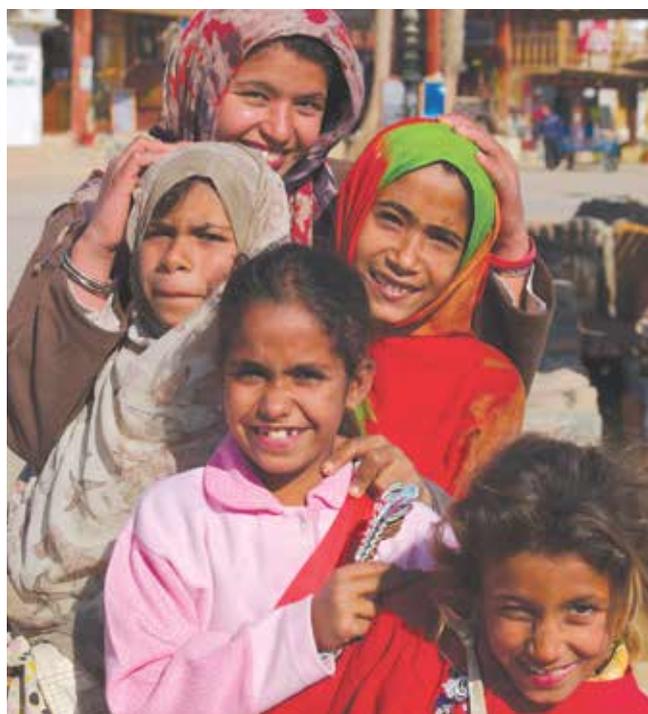
Many health indicators are poorer in Upper Egypt than in Lower Egypt and in rural areas compared to urban areas. Quality health care services must be extended to rural areas and the referral system strengthened by extending emergency transport and establishing maternity waiting homes at hospitals to accommodate women from remote communities who wish to stay close to the hospital prior to delivery.⁴²

Gender equality

Reducing gender disparities in access to health and education to enable women to have full autonomy in health-seeking behaviour and decision-making is a priority for Egypt. The labour force participation rate was 45% in 2011, with the rate for men (74%) almost three times higher than the rate for women (24%).⁷ In addition, Egypt is not on track to achieve the MDG target on the proportion of seats held by women in the national parliament.¹³ However, the 2014 constitution stipulates that women should have 25% of the 13 000 local council seats. There is a need, therefore, for emphasis on women and girls' empowerment through strengthening employment prospects for girls and women, educating and empowering women and girls to make reproductive health choices, as well as involving men in supporting women's health and well-being.⁴²

Reproductive health

Current small-scale initiatives to include reproductive health messages in educational curricula could be scaled up to reach the majority of girls and boys.



Focus on the newborn

Since a high proportion of under 5 mortality occurs in the newborn period, specific interventions to target newborn mortality will be required going forward. The recently released "Every Newborn: an action plan to end preventable deaths" by WHO and UNICEF can be used to guide Egypt's actions.⁴³

Nutritional status of children

Childhood malnutrition remains a key challenge for Egypt. The 2008 Egypt DHS suggests that child malnutrition levels have increased dramatically. The recommendations from the nutrition Landscape Analysis should be widely implemented. Policies for improving the nutritional status of children already include promoting exclusive breastfeeding for six months and promoting a healthy diet for breastfeeding mothers.^{13, 43} Existing targeted programs that provide postnatal supplements for vulnerable mothers at low prices, iron supplements for pregnant women, and iron and Vitamin A supplementation for children under 5 could be scaled up to include all vulnerable families.^{13, 43}

Education

The focus should be on continuing to expand access to education for all and on improving the quality of education. Emphasis on messages and activities to avoid early marriage should also continue and expand. Reproductive health messages for girls of reproductive age are currently incorporated into some school curricula but this effort could be expanded.

Changing political landscape

Effective governance improves health outcomes and, conversely, poor governance contributes to poor health outcomes.⁴⁴ Some improvements in Egypt's governance indicators were noted between 1996 and 2000, however, recent dramatic changes in the political landscape have led to deterioration across all three indicators of governance between 2000 and 2011 – control of corruption, rule of law and political stability, and absence of violence. The new constitution commits the state to guaranteeing a sufficient allocation of public spending to health, and the provision of improved health care and education services to be free for those who are unable to pay. New institutions and accountability mechanisms for health will be needed.⁴¹

10. References

1. Success factors for women's and children's health: multisector pathways to progress. Geneva: The Partnership for Maternal, Newborn & Child Health; 2014. <http://www.who.int/pmnch/successfactors/en/> (accessed 1 June 2014).
2. Kuruvilla S, Schweitzer J, Bishai D, Chowdhury S, Caramani D, Frost L. et al. Success factors for reducing maternal and child mortality. *Bulletin of the World Health Organization*. 2014;92(7): 533-544. <http://dx.doi.org/10.2471/BLT.14.138131>
3. UNICEF, WHO, World Bank, UN-DESA Population Division. Levels & trends in child mortality, report 2013. Estimates developed by the UN Inter-agency Group for Child Mortality Estimation. New York: UNICEF; 2013. http://www.who.int/maternal_child_adolescent/documents/levels_trends_child_mortality_2013/en/ (accessed 5 July 2014).
4. WHO, UNICEF, UNFPA, The World Bank and the United Nations Population Division. Trends in maternal mortality: 1990 to 2013. Geneva: WHO; 2014. <http://www.who.int/reproductivehealth/publications/monitoring/maternal-mortality-2013/en/> (accessed 6 July 2014).
5. Egypt: Post 2015 National Consultations. Geneva: World Foundation of United Nations Associations; 2013. <http://www.worldwewant2015.org/Egypt2015> (accessed 6 May 2014).
6. Country Cooperation Strategy for WHO and Egypt: 2010-2014. Geneva: World Health Organization; 2010. http://www.who.int/countryfocus/cooperation_strategy/ccs_egy_en.pdf (accessed 1 June 2014).
7. World Development Indicators. Washington DC: World Bank; 2013. <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed 2 February, 2014).
8. Helmy HE. Egypt's rural-urban income disparity: is the gap diverging? *Contemporary Arab Affairs*. 2011; 4:148-173.
9. The Arab Millennium Development Goals Report: Facing challenges and looking beyond 2015. New York: United Nations, League of Arab States; 2013. http://www.escwa.un.org/divisions/div_editor/Download.asp?table_name=divisions_other&field_name=ID&FileID=1559 (accessed 5 May 2014).
10. El-Zanaty F , Way A. Egypt Demographic and Health Survey 2008. Cairo, Egypt: Ministry of Health, El-Zanaty and Associates, and Macro International. <http://dhsprogram.com/pubs/pdf/FR220/FR220.pdf> (accessed 2 February, 2014).
11. Campbell O, Gipson R, Issa AH, Matta N, El Deeb B, El Mohandes A, et al. National maternal mortality ratio in Egypt halved between 1992-93 and 2000. *Bulletin of the World Health Organization*. 2005; 83: 462-471. doi:/S0042-96862005000600015.
12. Oona C, Danel I, Rivera A, Shinga F, Nyandora M, Mumbwanda L. et al. Reducing maternal mortality - learning from Bolivia, China, Egypt, Honduras, Indonesia, Jamaica, and Zimbabwe. In: Koblinsky M, editor. *Health, Nutrition, and population Series*. Washington (DC): World Bank; 2003.
13. Egypt's Progress Towards Achieving the Millennium Development Goals (2010). New York: United Nations Development Program; 2010. http://www.eg.undp.org/content/dam/egypt/docs/Publications/Docs%20MDGs/04_Egy_2010%20MDG%20Report_English_R5.pdf (accessed 2 February 2014).
14. Gay J, Hardee K, Judice N, Agarwal K, Fleming K, Hariston A, et al. *What Works: A policy and program guide to the evidence on family planning, safe motherhood, and STI/HIV/AIDS interventions*. Policy Project: 2003. http://www.policyproject.com/policycircle/documents/SM_WhatWorksp2.pdf (accessed 2 July 2014).
15. *National Health Accounts 2007/2008: Egypt Report*. Egypt, Bethesda, MD: Health Systems 20/20 project, Abt Associates Inc.; 2010.
16. *Egypt National Health Accounts 2008/09*. Egypt, Bethesda, MD: Health Systems 20/20 project, Abt Associates Inc.; 2011.
17. Khalil K, Roudi-Fahimi F. *Making motherhood safer in Egypt*. Washington DC: Population Reference Bureau; 2004. http://www.prb.org/pdf04/MakMotherSaferEgypt_Eng.pdf (accessed, 2 February 2014).
18. *Maternal and Neonatal Tetanus Elimination by 2005: Strategies for achieving and maintaining elimination*. Geneva: United Nations Children's Fund, World Health Organization, United Nations Population Fund; 2000. http://www.unicef.org/health/files/MNTE_strategy_paper.pdf (accessed 1 May 2014).
19. *Right-sizing Egypt's Health Workforce*. Egypt, Bethesda, MD: Health Systems 20/20 project, USAID; 2012. http://www.healthsystems2020.org/files/92792_file_WP_Brief_July_2012.pdf (accessed 1 June, 2014).
20. *Child poverty and disparities in Egypt: Building the social infrastructure for Egypt's future*. Geneva: United Nations Children's Fund; 2010. http://www.unicef.org/egypt/Child_poverty_and_disparities_in_Egypt_FINAL_-_ENG_full_report_-_23FEB10.pdf (accessed 1 May 2014).
21. Kehoe S, Neilson J, Norman J, editors. *Maternal and infant deaths: Chasing Millennium Development Goals 4 and 5*. Cambridge University Press: The Royal College of Obstetricians and Gynaecologists; 2010.
22. Gipson R, El, MA, Campbell O, Issa AH, Matta N, Mansour E. The trend of maternal mortality in Egypt from 1992-2000: an emphasis on regional differences. *Maternal and child health journal*. 2005;9:71-82.
23. *Egypt Health and Population Legacy Review: Volume 1*. Washington DC: USAID; 2011. http://pdf.usaid.gov/pdf_docs/pdacr591.pdf (accessed 3 May 2014).
24. *Country Accountability Framework Assessment, Egypt*. Geneva: World Health Organization; 2012. http://www.who.int/woman_child_accountability/countries/egy/en/index1.html (accessed 2 May 2014).
25. Nandakumar AK, Reich MR, Chawla M, Berman P, Yip W. *Prioritizing Children's Health Care Needs: The Egyptian Experience with School Health Insurance*. Boston: Harvard University; 1994. <http://www.hsph.harvard.edu/ihs/publications/pdf/ship.PDF> (accessed 4 March 2014).

26. Yip W, Berman P. Targeted health insurance in a low income country and its impact on access and equity in access: Egypt's school health insurance. *Health economics*. 2001;10:207-220. doi:10.1002/hec.589.
27. Egypt- Population Project. Washington DC, World Bank; 2008. <http://www.worldbank.org/projects/P005163/egypt-population-project?lang=en> (accessed 3 March 2014).
28. Yavuz S. Changes in Adolescent Childbearing in Morocco, Egypt and Turkey. Bethesda MD: USAID; 2010. <https://www.dhsprogram.com/pubs/pdf/WP75/WP75.pdf> (accessed 6 March 2014).
29. Healthy Mother/Healthy Child Project Completion Report. Cairo, Egypt: John Snow Inc., Ministry of Health and Population; 2005. <http://www.jsi.com/JSIInternet/Resources/publication/display.cfm?txtGeoArea=INTL&id=4313&thisSection=Resources> (accessed 3 June 2014).
30. Demographic and Health Survey [online database statcompiler]. Washington DC: USAID; 2008. <http://www.statcompiler.com> (accessed 1 February 2014).
31. Egypt nutrition landscape analysis report. Geneva, Cairo, Egypt: United Nations Children's Fund, Ministry of Health and Population; 2012. [http://www.unicef.org/mena/Landscape_Analysis_Report_January_2013\(1\).pdf](http://www.unicef.org/mena/Landscape_Analysis_Report_January_2013(1).pdf) (accessed 4 May 2014).
32. Health Research in Egypt: Country Report. Geneva: Council on Health Research for Development; 2000. http://www.cohred.org/publications/library-and-archive/health_research_in_e_1_190/ (accessed 27 February 2014).
33. Chowdhury S, Vergeer P, Schmidt H, Barroy H, Bishai D, Halpern S. Economics and ethics of results-based financing for family planning: evidence and policy implications. Washington DC: World Bank; 2013. <http://documents.worldbank.org/curated/en/2013/12/18933867/economics-ethics-results-based-financing-family-planning-evidence-policy-implications> (accessed 2 June 2014).
34. Sidhom S. Mainstreaming and Sustaining the Community School Model in Egypt: A Formative Evaluation. Geneva: United Nations Children's Fund; 2004. http://www.unicef.org/evaldatabase/index_29504.html (accessed 5 May 2014).
35. Pro-Poor Healthcare for Egypt, Policy Brief 3. New York: United Nations Development Program; 2005.
36. Taniguchi, H. Achieving a demographic breakthrough. *Integration*. 1994; 41: 2-3.
37. World Bank. Achieving MDGs 4 & 5 : Egypt's Progress on Maternal and Child Health. Health, nutrition and population global practice knowledge brief. Washington, DC: World Bank Group; 2014. <http://documents.worldbank.org/curated/en/2014/08/20370636/achieving-mdgs-4-5-egypts-progress-maternal-child-health> (accessed 5 October 2014)
38. Roudhi-Fahimi F. Islam and Family Planning. Washington DC: Population Reference Bureau; 2004. <http://www.prb.org/pdf04/islamfamilyplanning.pdf> (accessed 3 March 2014).
39. National Acceleration Plan for Child and Maternal Health 2013-2015. (Ministry of Health and Population, Cairo, Egypt).
40. Saving the Lives of Mothers and Children: Rising to the challenge. (Egypt High Level Expert Meeting Report, Ministry of Health and Population, Cairo, Egypt, 2013).
41. Muthuthi C. Egypt. Paris: African Economic Outlook; 2013. <http://www.africaneconomicoutlook.org/en/countries/north-africa/egypt/> (accessed 1 July 2014).
42. Reproductive Health at a Glance: Egypt. Washington DC: World Bank; 2011. <http://documents.worldbank.org/curated/en/2011/06/14703600/egypt-reproductive-health-glance> (accessed 1 March 2014).
43. Countdown to 2015. Maternal, Newborn and Child Survival, Egypt. Geneva: UN Commission on Information and Accountability, in Support of the Global Strategy for Women's and Children's Health; 2013. <http://www.countdown2015mnch.org/country-profiles/egypt> (accessed 1 February 2014).
44. Rashad H. Will the Arab Spring bring better health to Egyptians? *Bulletin of the World Health Organization*. 2011;89.

II. Acronyms

ANC	Antenatal Care
CPR	Contraception Prevalence Rate
EDHS	Egypt Demographic and Health Survey
ENC	Essential Newborn Care
EPI	Expanded Programme on Immunization
EU	European Union
FSW	Female Sex Workers
GDP	Gross Domestic Product
GOE	Government of Egypt
HIO	Health Insurance Organization
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome
IDU	Injecting Drug Users
IMCI	Integrated Management of Childhood Illness
IPHN	Integrated Perinatal Health and Child Nutrition Programme
LA	Landscape Analysis
LB	Live Births
MDG	Millennium Development Goal
MMR	Maternal Mortality Rate
MOE	Ministry of Education
MOHP	Ministry of Health and Population
NCCM	National Council for Children and Mothers
NGO	Non-Governmental Organization
NHA	National Health Account
NRC	National Research Centre
PBF	Performance-Based Financing
PMNCH	Partnership for Maternal, Newborn and Child Health
PNC	Postnatal Care
RMNCH	Reproductive, Maternal, Newborn and Child Health
SHIP	School Health Insurance Program
SMP	Safe Motherhood Programme
TFR	Total Fertility Rate
U5MR	Under 5 Mortality Rate
UNFP	United Nations Population Fund
UNICEF	United Nations Children's Fund
WUENIC	WHO and UNICEF Estimates of National Immunization Coverage
WDI	World Development Index
WHO	World Health Organization

12. Acknowledgements

Country multistakeholder review participants

WHO country office focal point(s): Hala EL Hennawy

National Consultant: Nasr El-Sayed

Participants in multistakeholder review (alphabetical order):

Hossam Abbas	Women Health FP, MOHP
Mohamed Abd El Moneim	IMCI Consultant
Nahla Abdel Tawab	National Population Council
Nabil Al Souif	USAID Egypt
Essam Alam	UNICEF Egypt
Magdy Bakr	WHO / Egypt
Henk Bekedam	WHO Representative
Philippe Duamelle	UNICEF representative
Maha El Adawy	UNFPA
Mohsen El Alfy	Ain Shams University
Nagwa El Ashry	Ministry of Health and Population
Azza El Ashmawy	NCCM
Magdy El Atawy	NCCM, Education Consultant
Zeinab El Bakry	National Nutrition Institute
Akmal El Erian	USAID Egypt
Azza El Dousouky	NCCM
Atef El Sheetany	Ministry of Health and Population
Riku Edward Elovainio	WHO / Egypt
Magdy El-Sanady	UNICEF Egypt
Aliaa El Sheikh	UNAIDS
Emad Ezzat	Ministry of Health and Population
Nahed Fahmy	Cairo University
Susan Farhoud	WHO / EMRO
Mona Hafez	Ministry of Health and Population
Golson Hassan	National Nutrition Institute
Ibrahim Kabbash	Tanta University
Montaser Kamal	Ford Foundation
Amr Kandeel	Ministry of Health and Population
Magdy Khalid	UNFPA Deputy
Ahmed Khamis	UNAIDS
Afaf Mohmed	National Nutrition Institute
Esmat Mansour	MCH Consultant
Hala Mostafa	National Population Council
Ibrahim Moussa	WHO / EPI Consultant
Jaime Nadal	UNFPA Representative
Ahmed Nagaty	IMCI Consultant
Khalid Nasr	MCH Consultant
Mohamed Nour	Ministry of Health and Population
Mona Rakha	IMCI Consultant
Moataz Saleh	UNICEF Egypt
Sherif Soliman	

Regional and international technical support for the country multistakeholder reviews

Lead international consultant: Sharon Arscott-Mills, ICF International

Draft country brief for the multistakeholder review: Cambridge Economic Policy Associates (CEPA)

World Bank HNP note and input into draft country brief: Intissar Sarker, Rafael Cortez, Seemeen Saadat, and Alaa Mahmoud Hamed Abdel-Hamid

Editing: Jennifer Franz-Vasdeki

Design and Graphics: Roberta Annovi and MamaYe-Evidence for Action

Overall coordination and technical support (alphabetical order):

Bernadette Daelmans	WHO HQ
Andres de Francisco	PMNCH
Rachael Hinton	PMNCH
Shyama Kuruvilla	PMNCH
Blerita Maliqi	WHO HQ
Haifa Madi	WHO EMRO

Photo credits: Cover page, © 2004 Deborah Doyle, Courtesy of Photoshare; page 4, © 1996 Deborah Doyle, Courtesy of Photoshare; page 5, © 2000 Mohsen Allam, Courtesy of Photoshare; page 6, © 2002 Center for Communication Programs, Courtesy of Photoshare; page 7, © 2000 Mohsen Allam, Courtesy of Photoshare; page 9, Flickr Creative Commons License - Nasser Nouri; page 10, © 2003 Center for Communication Programs, Courtesy of Photoshare; page 12, © 2002 Deborah Doyle, Courtesy of Photoshare; page 13, © 2004 Djodi Deutsch, Courtesy of Photoshare; page 14, © 2007 Omar Mohsen, Courtesy of Photoshare; page 15, © 2002 Center for Communication Programs, Courtesy of Photoshare; page 16, © 2005 Omar Mohsen, Courtesy of Photoshare; page 17, © 2003 Center for Communication Programs, Courtesy of Photoshare; page 18, WHO/Heba Farid; page 19, Flickr Creative Commons License - Mahmoud Abo Al Saud/Community Eye Health; page 21, © 2004 Deborah Doyle, Courtesy of Photoshare; page 22, Flickr Creative Commons License - Ernesto Graf; page 23, Flickr Creative Commons License - Hans Feijen/Farming Matters; page 24, © 2011 Center for Communication Programs, Courtesy of Photoshare; page 26, Flickr Creative Commons License - jcsuperstar60.

For further information:

The Partnership for Maternal, Newborn & Child Health

World Health Organization
20 Avenue Appia, CH-1211 Geneva 27 Switzerland
Telephone: + 41 22 791 2595

Email: pmnch@who.int
Web: www.pmnch.org

ISBN 978 92 4 150902 2

