

Previous birth interval <2 yrs

**33%**

Neonatal mortality rate  
(deaths per 1000 live births)

**9%**

Previous birth interval 3 yrs

Lowest wealth quintile

**49%**

Under-five mortality rate  
(deaths per 1000 live births)

**19%**

Highest wealth quintile



# Childhood Mortality

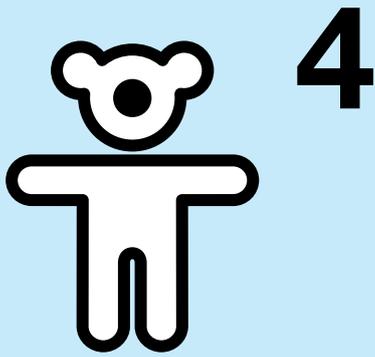
Rural upper Egypt

**39%**

Infant mortality rate  
(deaths per 1000 live births)

Rural lower Egypt

**23%**



## REDUCE CHILD MORTALITY

## MDG Indicators

- Children 1 year-old immunised against measles 98%
- Infant mortality rate (IMR) (deaths per 1000 live births) 25
- Under-five mortality rate (U5MR) (deaths per 1000 live births) 28

The infant and child mortality level is essential in assessing the demographic situation in any country. According to Millennium Development Goal 4 (MDG), countries are committed to reducing the under-five mortality rate (U5MR) by two-thirds between 1990 and 2015. Achieving MDG 4 is measured by three indicators: the under-five mortality rate, infant mortality rate (IMR), and the number of 1 year old children immunised against measles.

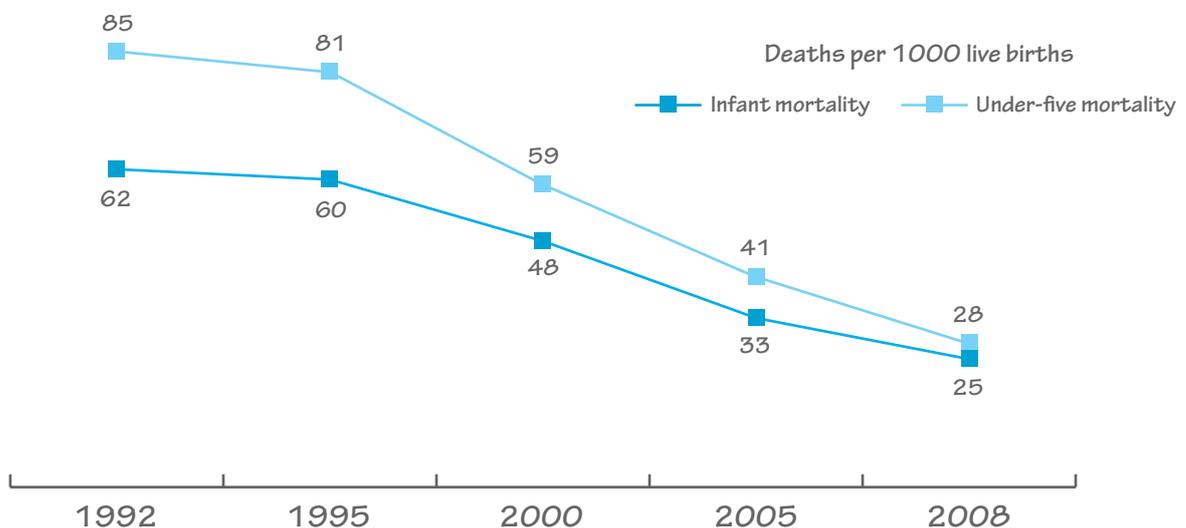
This brochure covers data that deals with early childhood mortality rates and measles immunisation in Egypt.

### Has Egypt achieved MDG 4?

Evidence shows Egypt is on track, and EDHS 2008 data indicates that U5MR in the four years before the survey declined to 28 deaths per 1000 live births, while the IMR fell to 25 deaths for every 1000 live births. The neonatal mortality rate was 16 deaths per 1000 live births.

This represents a remarkable decline in IMR and U5MR in the last two decades, as the IMR declined from a level of 62 deaths, and the U5MR declined from a level of 85 deaths, as seen in the 1992 EDHS. This implies that Egypt achieved the goal of reducing

Figure 1: Childhood mortality, Egypt 1992-2008



The IMR has declined sharply in Egypt in the last decade; however, the neonatal mortality rate still stands at 16 out of every 1000 live births.

U5MR and is on the path towards achieving the goal of substantially lowering the IMR.

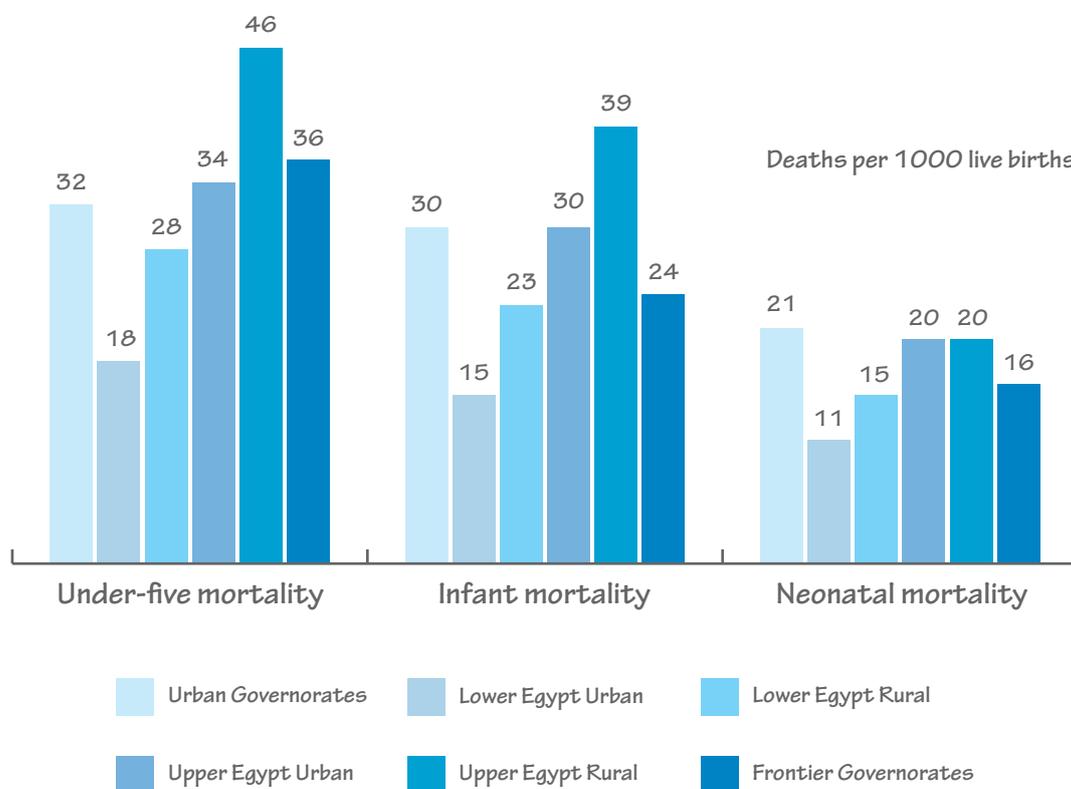
### Disparities in early childhood mortality

Disparities in child mortality still exist between Upper and Lower Egypt. The level of IMR and U5MR remain higher in Upper Egypt, especially

in rural areas as opposed to other parts of the country. The EDHS 2008 data indicate that U5MR reached 46<sup>1</sup> deaths for every 1000 live births in rural Upper Egypt compared with only 28 deaths in rural Lower Egypt. The level of reduction in mortality levels was more substantial in Upper Egypt than the reduction occurring in the other parts of Egypt.

### Neonatal mortality represents two-thirds of IMR

Figure 2: Early childhood mortality rates according to place of residence for the 10 years period preceding the survey



<sup>1</sup> Disaggregated data on mortality rates and their national rates, refer to 10-year period preceding the survey.

## Urban and rural disparities

Results from the EDHS surveys indicate that urban-rural differentials still exist. The level of IMR, as seen in the EDHS 2008, is 25 deaths per 1000 live births, which is less than half the 1992 figure. The IMR in rural areas is 31 per 1000 live births, which is less than one third the level observed in 1992. Although the IMR is significantly higher in rural areas, the decline that occurred in the last decade was higher in rural as opposed to urban. Identical patterns were observed for U5MR.

## Mother's Education

There is an apparent association between early childhood mortality rates and a mother's education. IMR and U5MR are higher amongst children whose mothers have no education (38 vs. 44 deaths) and in comparison to the mortality rates amongst infants whose mothers have a secondary or higher education (22 and 25 deaths per 1000 live births).



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Figure 3: Trends in infant and under-five child mortality by place of residence, 1992-2008

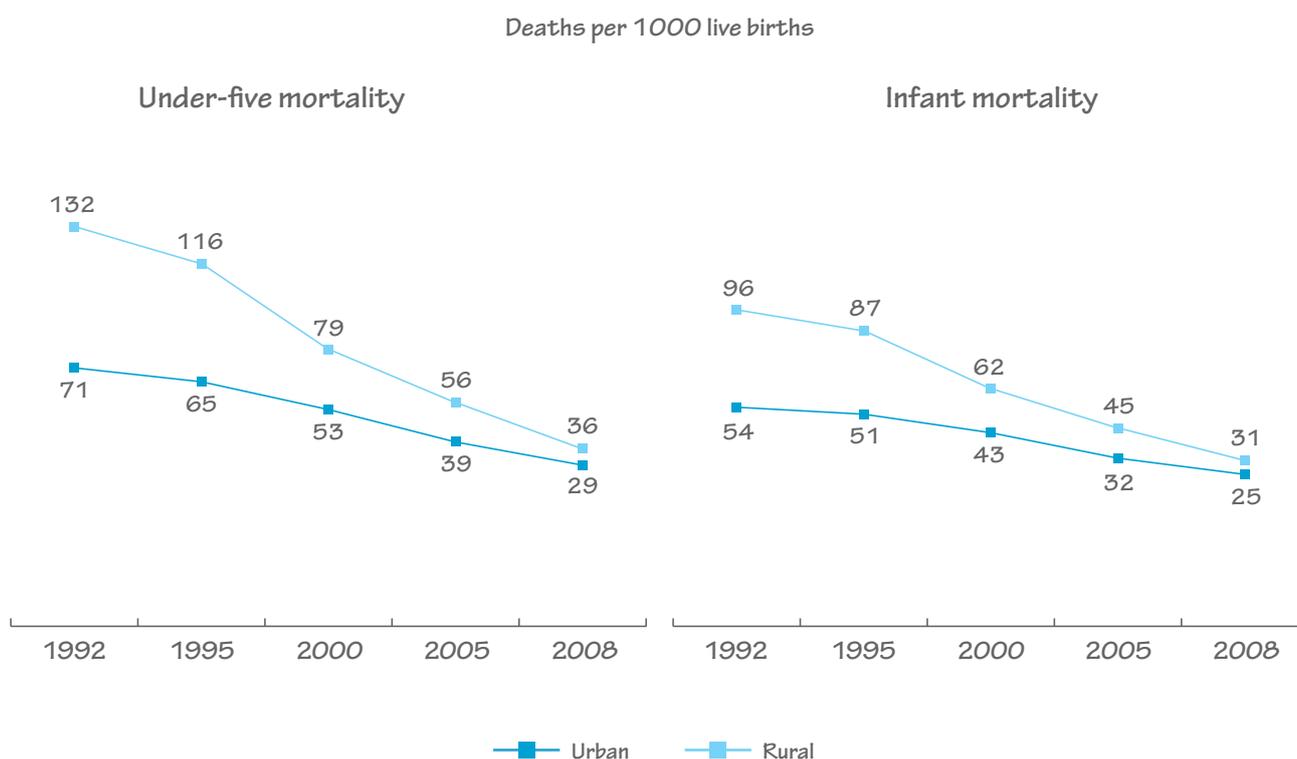
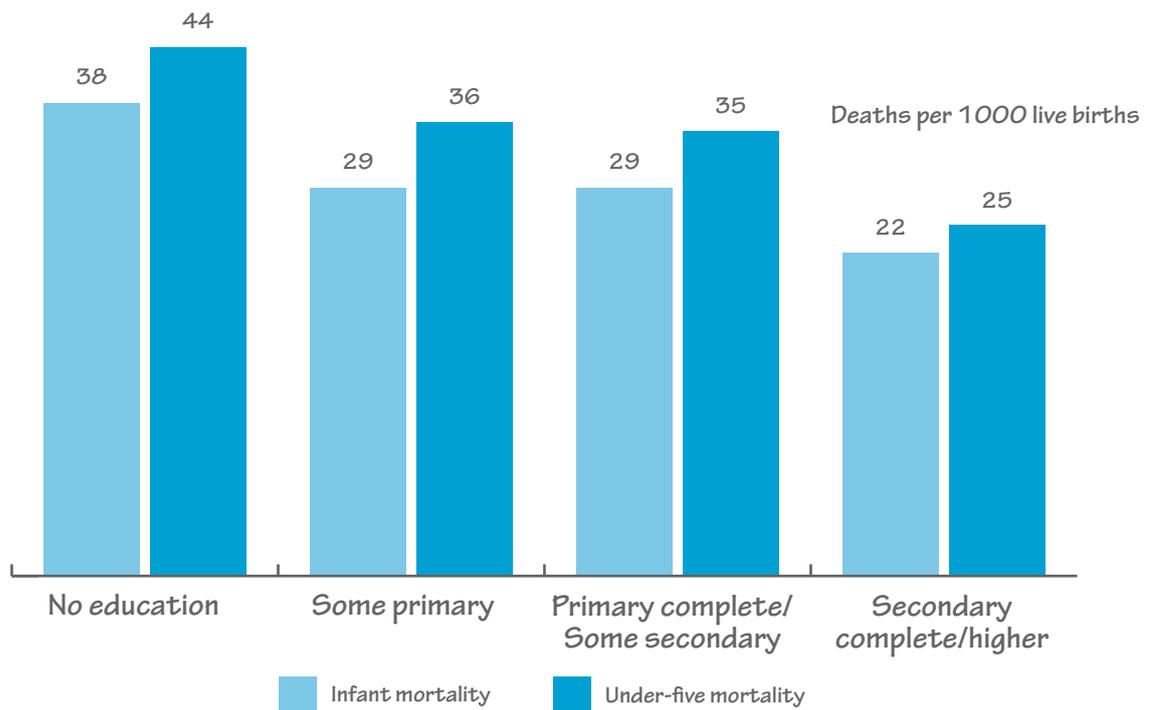


Figure 4: Early childhood mortality rates according to mothers' education



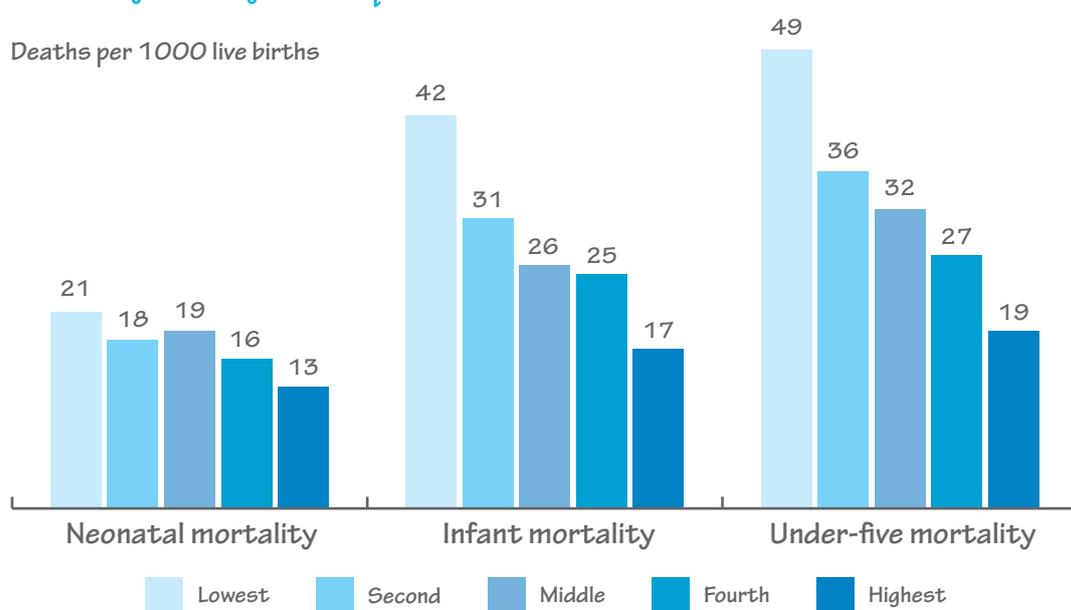
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## Wealth quintile

The highest childhood mortality rates are observed among mothers in the lowest wealth quintile. IMR and U5MR in the lowest wealth quintiles are more than double the amount seen in the highest wealth

quintiles. Likewise, the neonatal mortality rate for live births in the lowest wealth quintiles is double the incidence in the highest wealth quintiles, while the postnatal mortality rate is five times higher for children born to mothers in the lowest wealth quintile.

Figure 5: Mortality rates by wealth quintiles



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## Child's sex

Regarding a child's sex, early childhood mortality rates are higher in males than females.

Naturally, mortality rate for female child is less than mortality rate for male child, which is consistent with the biological survival advantage of girls in the neonatal period. However, in Egypt in early 1990's the situation was reversed. The U5MR for females in 1992 was higher than males (109 per 1000 for females vs. 107 per 1000 for males) which could indicate a preference in providing medical care for the boys during that phase.

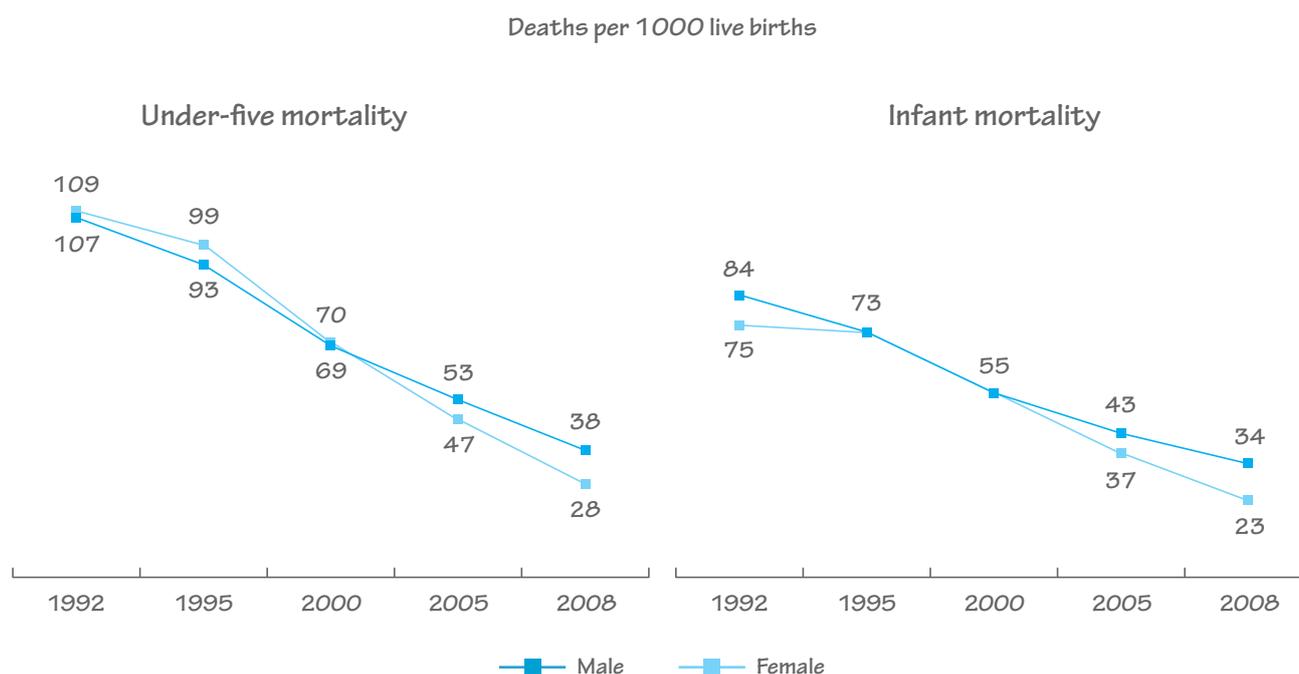
Analysis of childhood mortality trends shows that

IMR in boys has declined from a level of 84 in 1992 to 34 deaths for every 1000 live births as seen in the EDHS 2008. The decline in IMR amongst females has been much higher than in males with female infant mortality rates declining from 75 deaths per 1000 live births in 1992 to only 23 in 2008.

The IMR for females has already met the target laid out in MDG 4 and the target for males is on track and is expected to be met by 2010.

Data shows that the U5MR for girls in Egypt has been met, while the goal of reducing the U5MR for males is on track if the pace of decline -that was observed in the last decade- continues.

Figure 6: Trends in infant and under-five child mortality by gender, 1992-2008

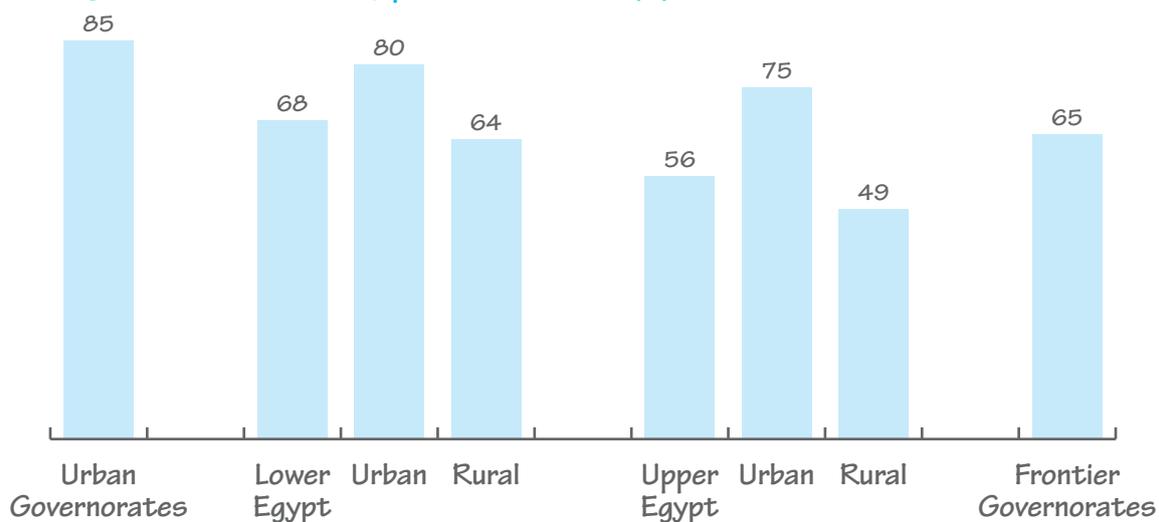


## Regular antenatal care and postnatal visits

Associated with high mortality rates in Upper Egypt is the low provision of antenatal and postnatal care services. The level of regular antenatal care in rural

Upper Egypt, as outlined in the 2008 EDHS stands at about 50 percent. This is compared with coverage of 64% in rural Lower Egypt and 85% in Urban Governorates. Similar observations were made with respect to postnatal care.

Figure 7: Regular antenatal care by place of residence (%)



### High-risk fertility patterns

Research has indicated that there is a strong relationship between maternal fertility patterns and children's survival risks. U5MR and IMR are higher in women under the age of 20 than in women from

other age groups. Also, mortality rates are lower when long birth intervals are taken into account.

It is clear that both the mothers' age at the time of pregnancy and the birth intervals are two factors that affect the child-risk ratio. Theoretically,



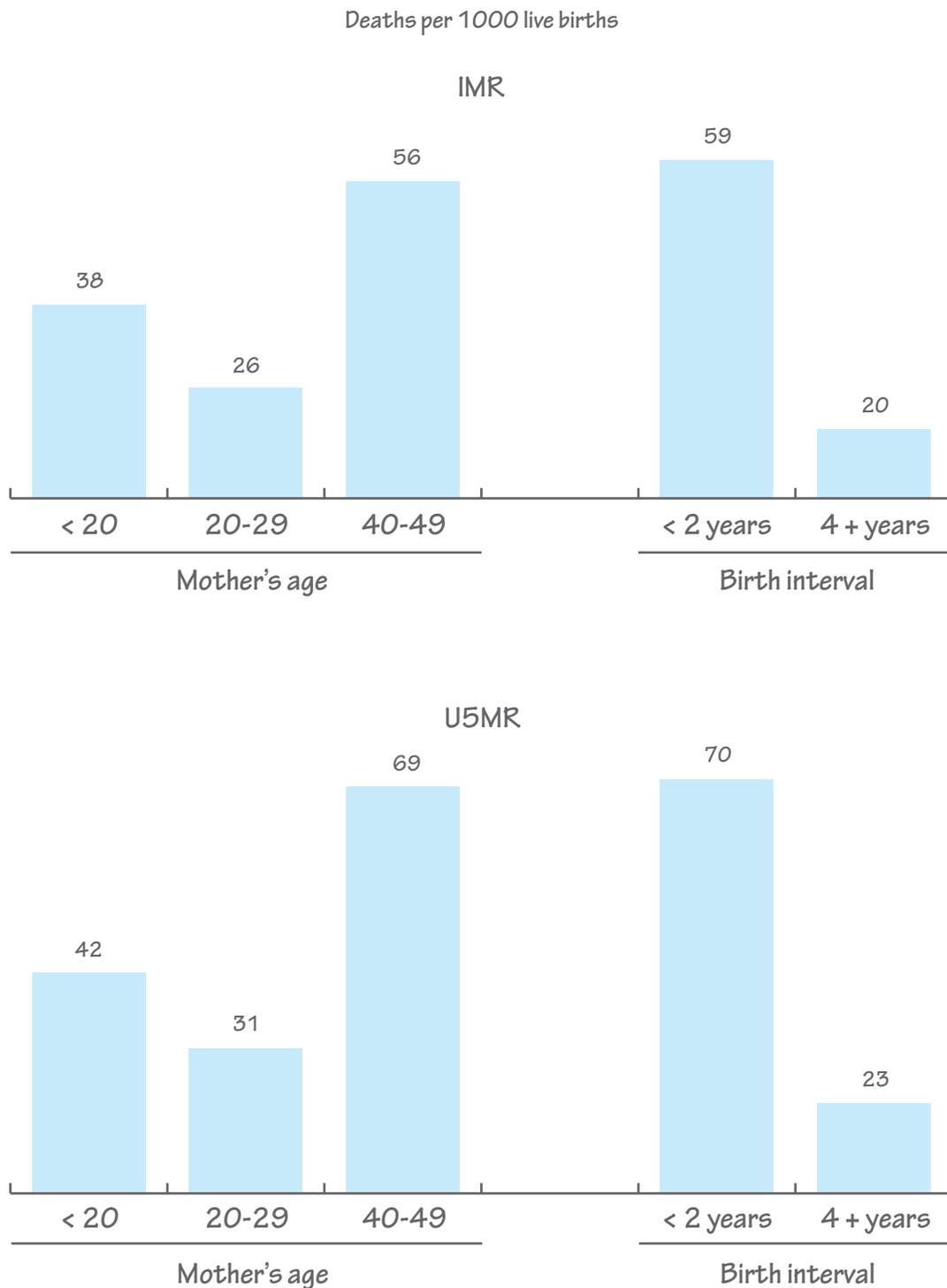
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the best age for a woman to give birth is between 20 to 29 years of age. There is clear evidence from the 2008 EDHS that the lowest number of infant mortality rates occurred for children born to mothers in this age category. Childhood mortality rates increase amongst mothers younger than 20 and those in the 40-49 age group. Data shows that both infant and under-five mortality rates increase

dramatically amongst mothers in the age 40-49 age group (56 for infants and 69 for children in the under-five age group).

When the birth interval between children is less than 24 months the IMR is three times higher than in cases where the birth interval is over four years. The same patterns are observed for U5MR.

**Figure 8: Differentials of mortality rates according to age and birth interval**

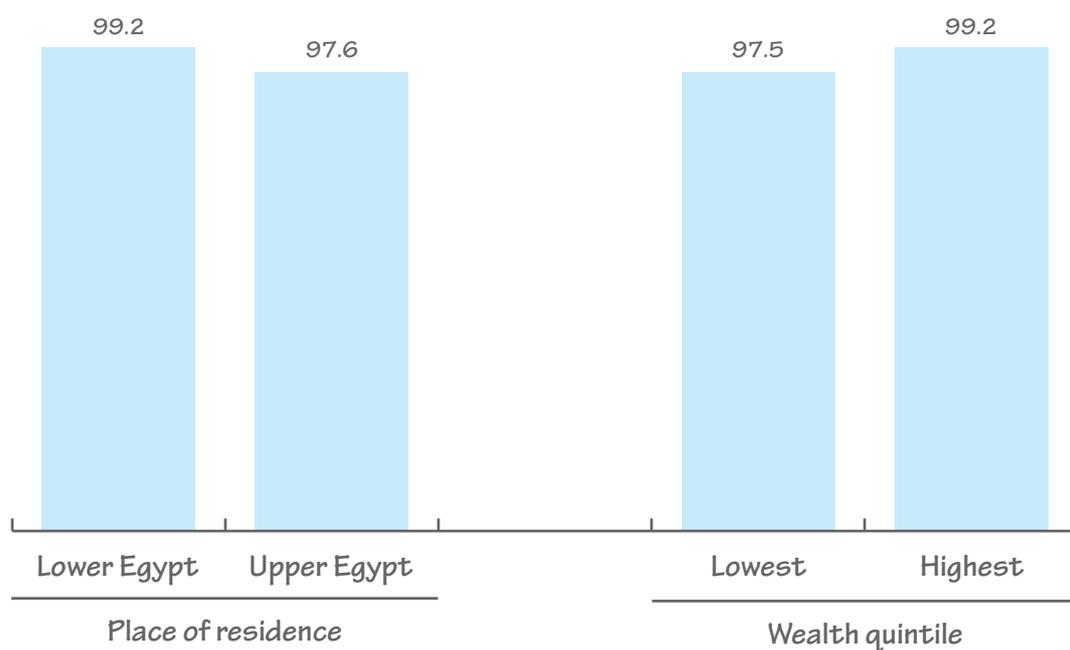


## One year old children immunised for measles

The Egyptian government has adopted a successful extended programme of immunisation for children since 1990. EDHS data indicates that immunisation coverage against childhood illnesses has reached 92 percent with little variation according to region, while measles national immunisation

coverage had reached an average of 98 percent. No variation is seen in the EDHS 2008 data between urban and rural areas in terms of coverage for measles immunisation. Some variations in recent measles vaccination coverage, however, exist by region and wealth quintiles. The level of measles coverage for one-year old children is higher in Lower Egypt and amongst children in the highest wealth quintiles.

Figure 9: Differentials in measles coverage (%)



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## Key challenges

- Data indicates that antenatal and postnatal care are lowest in rural Upper Egypt and the region also has the highest levels of IMR and U5MR. Special programs that promote antenatal care are needed, especially those that target individuals in the lowest wealth quintiles. In addition, postnatal care is very important in improving maternal and child health.
- Results confirmed that suitable spacing between children positively affects the health of both mother and newborn. Promoting birth spacing and family planning is important and assists mothers in having healthier babies and ultimately lowering the risk of mortality rates.

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