

Reduce child mortality



Target

Reduce the under-five mortality rate by two-thirds between 1990 and 2015

Though the under-five mortality rate for the ECA region has fallen from 45 per 1,000 to 36, it is still well short of the rate needed to meet the MDG. Regional differences remain pronounced, with child mortality rates much higher in Central Asia than in Central and Eastern Europe.

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Official data in nearly all ECA countries suggest that under-five mortality rates came down in the 1990s, and in many cases reached Western European levels. But the ECA region is not on track to achieve the two-thirds reduction in under-five mortality by 2015. In 1990 its 46 deaths per 1,000 was the lowest of all developing regions, but its current 36 per 1,000 is still well short of what's needed to achieve the MDG.

Two-thirds of the countries in the region are likely to meet this MDG. EU8 countries had low under-five mortality rates in the 1990s and the application of a two-thirds reduction to the 1990 baseline produces a target lower than the current mean for the European Monetary Union. For example, the rate in the Czech Republic in 1990 was only 13. If it were to come down by two-thirds, the goal would be 4.3, much lower than the current rate in Japan, France, the United Kingdom, or the United States. Few countries are likely to meet their targets, but it is possible that they will reach 6, the level of many high-income countries

today. The child mortality rate in Croatia is already down to 7.

Most lower and middle-income CIS countries have made little or no progress in attaining the child mortality goal. Russia, the largest country in the region, has made barely any progress. Turkey has reduced its under-five mortality rate by almost 50 percent.

For many CIS countries the difference between official data and estimates of international agencies is significant—in part because of debates on the definition of the under-five mortality rate, the current status of statistical information systems, and the standards of reporting. Tajikistan's under-five mortality rate shows that the UNICEF and WDI estimates are weighted heavily toward survey data rather than administrative data (TMD). In Uzbekistan the 2002 rate reported by TMD, using vital registration, was 28.5 per 1,000 live births, compared with 71 reported by UNICEF, using household surveys estimates.

The estimates and country data follow similar trends in most countries, but there are exceptions. For Kazakhstan the under-five mortality rate is decreasing on the basis of country data, and increasing on the basis of international estimates. The data source thus plays a vital role in assessing whether the MDG is likely to be met or not. For Georgia both the WDI and TMD rates show little change since 1990, so meeting the MDG is unlikely.

One problem unique to the ECA region is the difficulty of defining the term "live births." The Soviet Union maintained a less rigorous definition than the WHO. The Soviet definition, also adopted by many Central and Eastern European countries, can underestimate the true under-five mortality rate by almost 20 percent—for example, some live births are classified as still births. Most ECA countries have since adopted the WHO definition, but in a rather limited way. Underreporting still persists, primarily in rural areas where a large proportion of infant deaths occurs at

Official infant mortality counts based on administrative data underestimate the real situation in as many as 15 countries in the region

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home, escaping the national health information system.

In a few countries unregistered births and deaths are not included in official statistics. In Georgia birth registration fees for infants born to mothers who are not in a registered marriage are twice the fees for infants born to married mothers. This has created a disincentive for the Georgian population, and particularly single mothers, to register newborn children, leading to incorrect official estimates of the under-five mortality rate.

Definitions

Under-five mortality rate is the probability, expressed per 1,000, that a newborn will die before reaching age five. It is an “expectation” based on current annual rates. It is therefore not an observed rate of child deaths in their first five years, rather the probability of a child dying in the reference year, assuming that current mortality patterns continue to apply.

Live births, according to the WHO, is: “The complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached” (WHO 1992, p. 46).

Live births, according to the former Soviet Union, presumes that infants born before the end of 28 weeks

of gestation or who weigh less than 1,000 grams at birth (there is considerable overlap between these two groups) are nonviable—they are not counted as live births until they have survived a full seven days (or 168 hours). If they survive for less than seven days, they are considered miscarriages and thus not counted (Aleshina and Redmond 2003; Kingkade and Sawyer 2001).

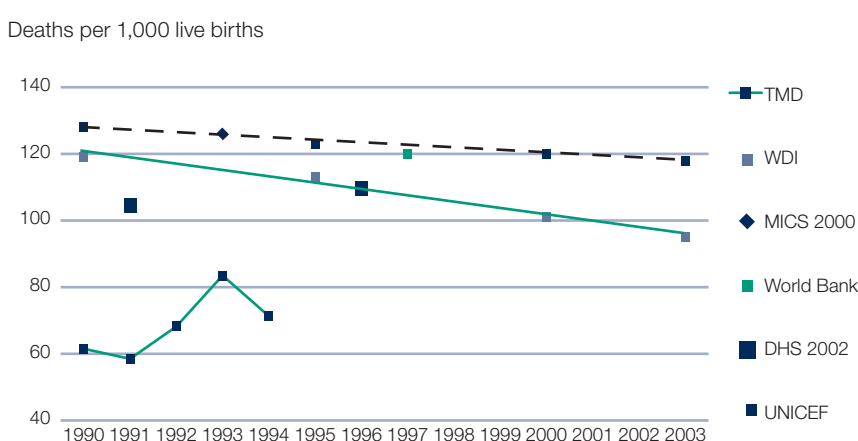
Under-five mortality can be measured by several methods. In countries with accurate registers of births and deaths, under-five mortality rates are typically obtained from civil registration information on deaths of children by age and from population census information on the size of the population of those ages at risk of dying. In countries where the registration of vital events is not complete, estimates of under-five mortality are typically obtained from household surveys such as demographic health surveys and

multiple indicator cluster surveys in which women of childbearing age are asked about their reproductive histories.

Data sources

The World Bank and UNICEF have developed and adopted a methodology that fits a regression line to mortality rates and their reference dates using weighted least squares (for more information, see Hill and others 1999.) To produce estimates of under-five mortality rates for most countries in the region WDI used data from the United Nations Statistics Division’s *Population and Vital Statistics Report*, publications, and other releases from national statistical offices, demographic and health surveys from national sources and Macro International, and UNICEF’s *State of the World’s Children 2005*. TransMONEE data are largely provided by the central statistical offices participating in the MONEE project and are used as a proxy for official and administrative data in this publication.

Differences in under-five mortality rate trends for various sources, Tajikistan, 1990–2003



Source: UNICEF IRC 2004; World Bank various years, 2000.

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Country	Under-five mortality rate per 1,000 live births/sources	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Albania	WDI 2005	45.0	..	..	..	..	34.0	..	..	..	..	25.0	..	..	21.0
	TMD	41.5	44.5	46.9	49.7	44.7	37.0	30.6	..	..	..	19.3	17.7	15.1	..
Armenia	WDI 2005	60.0	..	..	..	..	49.0	..	..	..	..	37.0	..	..	33.0
	TMD	23.8	22.6	24.2	24.2	21.4	19.9	19.5	19.5	18.4	19.2	19.2	18.8	16.6	..
Azerbaijan	WDI 2005	105.0	..	..	..	..	98.0	..	..	..	..	93.0	..	..	91.0
	TMD	40.5	40.1	41.7	44.4	45.2	43.2	39.3	37.5	33.2	31.7	25.9	24.8	23.1	..
Belarus	WDI 2005	17.0	..	..	..	..	18.0	..	..	..	..	17.0	..	..	17.0
	TMD	15.2	15.4	15.5	15.5	16.2	16.6	15.8	15.3	14.3	14.8	12.3	11.6	10.9	..
Bosnia and Herzegovina	WDI 2005	22.0	..	..	..	..	19.0	..	..	..	..	18.0	..	..	17.0
	TMD	17.2	18.5	..	..	..	..	..	..	12.9	11.4	11.2	8.7	10.5	..
Bulgaria	WDI 2005	18.7	21.4	20.6	19.6	20.9	19.0	19.8	18.7	18.6	17.8	15.8	..	17.1	..
	TMD	18.7	21.4	20.6	19.6	20.9	19.0	19.8	23.5	18.6	17.8	15.8	17.0	16.0	..
Croatia	WDI 2005	13.0	..	..	..	..	11.0	..	..	..	..	8.0	..	..	7.0
	TMD	12.5	12.6	14.0	12.0	11.8	10.4	9.3	9.5	9.5	9.2	8.6	9.2	8.4	..
Czech Republic	WDI 2005	13.0	12.1	11.6	10.1	10.2	9.5	7.0	7.6	6.4	6.0	5.0	5.0	5.0	..
	TMD	12.4	12.1	11.6	10.1	10.2	9.5	7.8	7.6	6.4	5.7	5.2	5.0	5.2	..
Estonia	WDI 2005	17.0	..	..	..	..	20.0	..	..	..	..	11.0	..	..	9.0
	TMD	17.2	17.5	20.8	19.9	17.4	20.1	12.5	13.0	12.6	12.6	10.7	10.9	7.5	..
Georgia	WDI 2005	47.0	..	..	..	..	45.0	..	..	..	..	45.0	..	..	45.0
	TMD	24.8	25.2	26.7	..	35.4	32.7	31.5	27.1	25.1	25.2	24.9	25.5	26.1	..
Hungary	WDI 2005	16.9	17.7	15.6	14.2	13.3	12.2	12.2	11.3	11.4	9.9	9.2	8.1	7.2	7.3
	TMD	16.8	17.6	16.0	14.6	13.5	12.5	12.7	11.8	11.8	10.2	10.8	9.4	8.6	..
Kazakhstan	WDI 2005	63.0	..	..	..	..	67.0	..	..	..	..	73.0	..	..	73.0
	TMD	34.0	35.0	33.4	36.0	35.3	36.5	33.2	32.6	28.9	27.4	25.1	24.7	21.7	..
Kyrgyz Republic	WDI 2005	80.0	..	..	..	..	74.0	..	..	..	..	70.0	..	..	68.0
	TMD	41.3	38.6	42.2	44.6	41.9	41.3	36.4	42.1	40.7	35.5	33.2	29.5	29.0	..
Latvia	WDI 2005	18.0	..	..	..	..	20.0	..	..	..	..	13.0	..	..	12.0
	TMD	18.1	20.5	22.2	22.2	20.1	19.5	20.7	18.5	19.0	13.6	12.8	13.7	12.8	..
Lithuania	WDI 2005	14.0	..	..	..	..	16.0	..	..	..	..	12.0	..	..	11.0
	TMD	13.5	17.4	19.7	19.1	18.4	16.2	13.2	13.2	12.0	11.2	11.6	10.8	10.4	..
Macedonia, FYR	WDI 2005	33.0	..	..	..	..	25.0	..	..	..	..	14.0	..	..	11.0
	TMD	33.3	30.2	32.3	25.3	25.5	24.5	18.3	17.2	17.6	15.6	13.6	12.9	11.7	..
Moldova	WDI 2005	37.0	..	..	..	..	36.0	..	..	..	..	33.0	..	..	32.0
	TMD	25.2	25.0	24.5	27.6	28.8	27.4	26.4	26.5	22.2	24.0	23.3	20.3	18.2	..
Poland	WDI 2005	19.0	..	..	..	..	15.0	..	..	..	..	9.0	..	..	7.0
	TMD	21.9	20.4	19.6	18.1	17.3	15.6	14.1	11.9	11.1	10.5	9.5	9.0	8.9	..
Romania	WDI 2005	32.0	..	..	..	..	25.0	..	..	..	..	22.0	..	..	20.0
	TMD	35.7	30.8	30.5	30.3	29.7	26.2	27.5	26.4	24.6	22.6	22.2	21.9	20.8	..
Russian Federation	WDI 2005	21.0	..	..	..	..	22.0	..	..	..	..	21.0	..	..	21.0
	TMD	22.3	23.2	23.7	26.4	23.9	23.4	22.0	21.7	20.4	21.5	19.2	18.3	16.2	..
Serbia and Montenegro	WDI 2005	26.0	..	..	..	..	19.0	..	..	..	..	16.0	..	..	14.0
	TMD	26.2	24.1	24.6	24.9	21.5	19.4	19.8	16.5	16.3	15.9	15.8	15.3	11.5	..
Slovakia	WDI 2005	15.0	12.0	9.0	8.0
	TMD	14.1	15.4	14.7	12.7	13.2	13.1	12.2	10.7	11.3	10.1	10.2	8.2	9.1	..

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Slovenia	WDI 2005	9.0	7.0	5.0	4.0
	TMD	10.2	10.0	10.6	8.4	8.2	6.7	6.1	6.3	6.7	5.7	5.6	4.7	4.9	..
Tajikistan	WDI 2005	119.0	113.0	101.0	95.0
	TMD	61.5	58.5	68.2	83.5	71.3
Turkey	WDI 2005	78.0	60.0	45.0	39.0
	WHO HFA
Ukraine	WDI 2005	22.0	24.0	21.0	20.0
	TMD	17.3	18.5	18.7	19.9	19.6	19.9	19.4	18.9	17.3	17.5	16.0	14.4	13.6	..
Uzbekistan	WDI 2005	79.0	75.0	71.0	69.0
	TMD	47.9	48.2	51.7	48.1	46.2	42.7	38.6	36.3	35.5	31.8	28.5	26.6	24.3	..

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Data source

WDI 2005 World Development Indicators 2005
TMD TransMONEE Database, UNICEF Innocenti Research Centre, Florence, Italy
WHO HFA WHO Health For All Database