

MDG 4: Reduce Child Mortality

Snapshots

- Child mortality was reduced by about half across the Asia and Pacific region between 1990 and 2011. In some cases, including the People's Republic of China (PRC), deaths of children under 5 years old fell by 70%. For 29 of 43 reporting members, though, the target of a two-thirds reduction by 2015 is beyond reach unless they accelerate progress.
- Further reductions in child mortality require greater attention to the health of babies under 12 months old, who account for most of the under-5 child mortality. Only 12 of 45 economies have already lowered or are expected to lower infant mortality by two-thirds by 2015.
- Measles immunization programs have made strong progress. About 86% of the region's 1-year-olds were immunized against this disease in 2011. However immunization rates were low in some economies, and declining in others.

Introduction

The Millennium Development Goal (MDG) 4 target is to reduce the mortality rate for children under 5 years old by two-thirds between 1990 and 2015.

Related indicators are

- (i) to reduce the infant mortality rate by two-thirds between 1990 and 2015; and
- (ii) to increase the percentage of 1-year-old children who have been immunized against measles. Immunization against measles has a direct impact on child mortality, and the percentage of 1-year-olds who have been

immunized is also a good indicator of the quality of the child health care system.

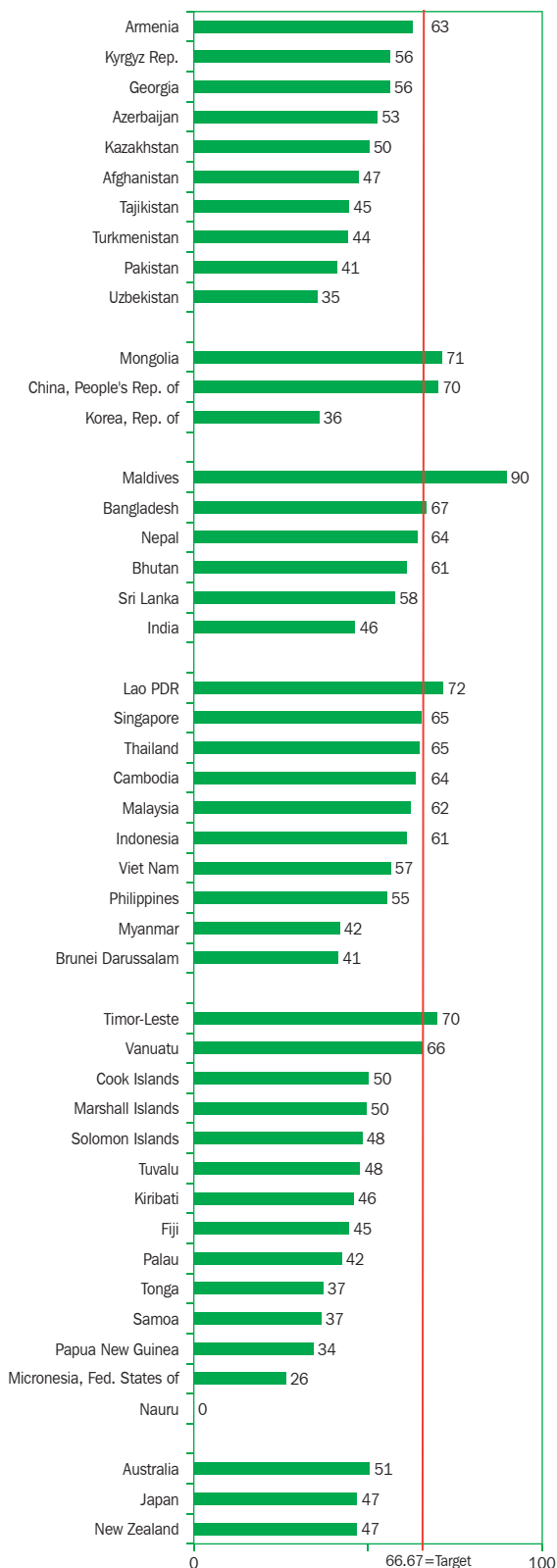
Key trends

Child mortality has fallen by half, but the two-thirds target will be missed by many economies. Table 4.1 shows that under-5 mortality rates in developing member economies fell from an average of 85 per thousand live births in 1990 to 43 in 2011, below the global average of 50. Figure 4.1 charts under-5 mortality rates for 43 developing members and three developed members in 1990 and 2011. The highest rates of under-5 mortality in 2011 were recorded in Afghanistan (101), Pakistan (72), Tajikistan (63), Myanmar (62), and India (61), even after reductions of at least 40% in these economies. The under-5 mortality rate in the PRC, at 15, was considerably lower than rates of other heavily populated economies.

The sharpest reductions were achieved by the Maldives (down by 90%), the Lao People's Democratic Republic (Lao PDR) by 72%; Mongolia, 71%; the PRC and Timor-Leste, 70%; and Bangladesh, 67%. Relatively moderate reductions of 26%–35% were made by the Federated States of Micronesia, Papua New Guinea, and Uzbekistan.

Box 4.1 shows progress toward achieving the target of reducing the under-5 mortality rate by two-thirds by 2015. Fourteen economies achieved the target or are expected to do so, based on current trends, including Bangladesh, the PRC, and Indonesia. A much larger group of 29 economies are expected to miss the target, India and Pakistan among them, unless they accelerate their

Figure 4.1 Under-5 mortality rate, percent reduction, 1990 to 2010



Lao PDR = Lao People's Democratic Republic.
Source: Table 4.1.

Box 4.1 Progress toward the target for under-5 mortality rate

Early achievers

Bangladesh	Maldives
China, People's Rep. of	Mongolia
Lao PDR	Timor-Leste

On track

Armenia	Nepal
Bhutan	Thailand
Indonesia	Vanuatu

Slow progress

Afghanistan	Myanmar
Azerbaijan	Pakistan
Brunei Darussalam	Palau
Cambodia	Papua New Guinea
Cook Islands	Philippines
Fiji	Samoa
Georgia	Solomon Islands
India	Sri Lanka
Kazakhstan	Tajikistan
Kiribati	Tonga
Korea, Rep. of	Turkmenistan
Kyrgyz Rep.	Tuvalu
Marshall Islands	Uzbekistan
Micronesia, Fed. States of	Viet Nam

No progress/regressing

Nauru

Lao PDR = Lao People's Democratic Republic.

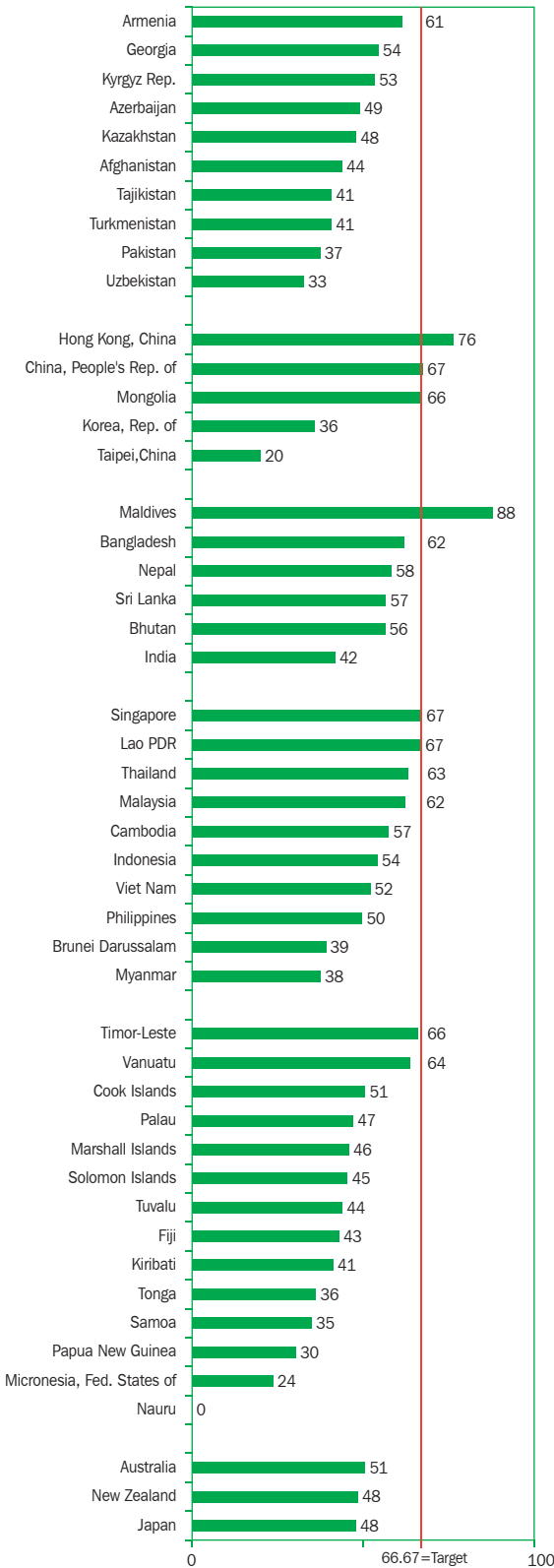
Source: Table 4.1.

efforts. About half these economies could still meet the target if they reduced their under-5 mortality by about 2 deaths per thousand live births annually (ESCAP, ADB, and UNDP 2012).

Major causes of child death are complications during birth, undernutrition, and pneumonia, diarrhea, and malaria (UN 2013). Standard measures known to reduce such deaths include promoting breastfeeding and providing women and their children with adequate nutrition and safe drinking water, skilled care at birth, postnatal care services, good sanitation, and vaccination programs.

Further progress on reducing child mortality requires greater attention to the health of infants. The first few months of life is a precarious time, and deaths during that period account for most under-5 mortality. Developing member economies brought infant mortality (deaths of babies under 12 months old) down from 62 per thousand live births in 1990 to 34 in 2011. Table 4.1 shows significant reductions in all reporting economies, except for Nauru, where the infant mortality rate was unchanged at 32. Nevertheless, Figure 4.2 indicates that rates of reduction in infant mortality generally lagged behind those of under-5 mortality.

Figure 4.2 Infant mortality rate, percent reduction, 1990 to 2011



Lao PDR = Lao People's Democratic Republic.
Source: Table 4.1.

Box 4.2 shows that five economies—the PRC; Hong Kong, China; the Lao PDR, the Maldives, and Singapore—achieved the target of lowering infant mortality rates by two-thirds, and seven others will join them at their current rates of progress. Bangladesh and the PRC achieved the target or are on track to do so. However, 32 economies, including some of the most populous ones, are making slow advances on this goal and are unlikely to reach it by 2015.

While Brunei Darussalam, the Cook Islands, the Republic of Korea, and Taipei, China were considered to be making slow progress in lowering infant mortality rates by two-thirds, their rates were already among the lowest in the region in 2011.

Box 4.2 Progress toward the target for infant mortality rate

Early achievers

China, People's Rep. of	Maldives
Hong Kong, China	Singapore
Lao PDR	

On track

Armenia	Thailand
Bangladesh	Timor-Leste
Malaysia	Vanuatu
Mongolia	

Slow progress

Afghanistan	Myanmar
Azerbaijan	Nepal
Bhutan	Pakistan
Brunei Darussalam	Palau
Cambodia	Papua New Guinea
Cook Islands	Philippines
Fiji	Samoa
Georgia	Solomon Islands
India	Sri Lanka
Indonesia	Taipei, China
Kazakhstan	Tajikistan
Kiribati	Tonga
Korea, Rep. of	Turkmenistan
Kyrgyz Rep.	Tuvalu
Marshall Islands	Uzbekistan
Micronesia, Fed. States of	Viet Nam

No progress/regressing

Nauru

Lao PDR = Lao People's Democratic Republic.
Source: Table 4.1.

Immunization against measles has made substantial progress in the region. Measles is a highly contagious viral respiratory infection that kills and can leave survivors with life-long disabilities. Most at risk are children under 5 who have not been vaccinated against the disease. Figure 4.3 presents the proportion of 1-year-old children immunized against measles in 1990 and 2011. The average for developing member economies increased from 74% of 1-year-olds in 1990 to 86% in 2011. In 31 of the 45 economies, at least 90% of the children were immunized against measles in 2011.

Increases in immunization coverage were generally high in economies that started from a low base. For example, Cambodia raised its immunization rate from 34% in 1990 to 93% in 2011 and Georgia from 16% in 1992 to 94% in 2011. India had the lowest immunization rate among the most populous economies, at 74% in 2011. That compared with Pakistan (80%), Indonesia (89%), Bangladesh (96%), and the PRC (99%).

The lowest immunization rates were in the Pacific—Vanuatu (52%), Papua New Guinea (60%), Timor-Leste (62%), and Samoa (67)—as well as Afghanistan (62%) and the Lao PDR (69%). Also of concern, immunization rates fell in six economies between 1990 and 2012, mostly in the Pacific, and in the Philippines, where the immunization rate fell to 79%, the lowest in Southeast Asia after the Lao PDR. To be successful, vaccination campaigns must reach all children and be sustained over time (World Bank 2013).

Figure 4.3 Proportion of 1-year-old children immunized against measles, 1990 or earliest year and 2011 (%)



Lao PDR = Lao People's Democratic Republic.
Source: Table 4.1.

Data issues and comparability

In developed economies, data on mortality are usually taken from vital statistics registration records. Most developing economies lack fully functioning vital registration systems; thus, census and household surveys have become primary sources of data, although with some limitations as to their quality. Because the surveys may not be held each year, econometric estimation techniques may be used to produce a consistent time series. For these reasons, mortality data are of varying quality.

Data on immunization may be provided directly by health workers and clinics providing inoculations or, more commonly in Asia, the information is collected from samples of households in health and demographic surveys. As with mortality data, estimation techniques are used to convert partial data into comprehensive estimates.

MDG 4 Targets and Indicators

Table 4.1 Target 4.A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate

Regional Member	4.1 Under-Five Mortality Rate (per 1,000 live births)			4.2 Infant Mortality Rate (per 1,000 live births)			4.3 Proportion of 1-Year-Old Children Immunized against Measles (%)		
	1990	2000	2011	1990	2000	2011	1990	2000	2011
Developing Member Economies									
Central and West Asia^a	116	94	69	89	73	56	55	62	81
Afghanistan	192	136	101	129	95	73	20	27	62
Armenia	47	30	18	40	26	16	93 (1992)	92	97
Azerbaijan	95	69	45	75	57	39	52 (1992)	67	67
Georgia	47	33	21	40	29	18	16 (1992)	73	94
Kazakhstan	57	42	28	48	37	25	89 (1992)	99	99
Kyrgyz Republic	70	47	31	58	41	27	94 (1992)	98	97
Pakistan	122	95	72	95	76	59	50	59	80
Tajikistan	114	95	63	89	76	53	68 (1992)	88	98
Turkmenistan	94	71	53	75	59	45	76 (1992)	96	99
Uzbekistan	75	61	49	62	51	42	84 (1992)	99	99
East Asia^a	48	34	14	38	28	12	98	84	99
China, People's Rep. of	49	35	15	39	29	13	98	84	99
Hong Kong, China	...	...	...	6	3	1	...	...	...
Korea, Rep. of	8	6	5	6	5	4	93	95	99
Mongolia	107	63	31	76	49	26	92	92	98
Taipei, China	...	...	...	5	6	4	...	...	...
South Asia^a	117	86	59	82	63	45	57	58	77
Bangladesh	139	84	46	97	62	37	65	72	96
Bhutan	138	89	54	96	65	42	93	78	95
India	114	88	61	81	64	47	56	55	74
Maldives	105	53	11	76	41	9	96	99	96
Nepal	135	83	48	94	62	39	57	71	88
Sri Lanka	29	19	12	24	16	11	80	99	99
Southeast Asia^a	69	47	30	48	35	23	70	80	89
Brunei Darussalam	12	10	7	9	7	6	99	99	91
Cambodia	117	102	43	85	76	36	34	65	93
Indonesia	82	53	32	54	38	25	58	74	89
Lao PDR	148	81	42	102	60	34	32	42	69
Malaysia	17	11	7	15	9	6	70	88	95
Myanmar	107	84	62	77	62	48	68	84	99
Philippines	57	39	25	40	29	20	85	78	79
Singapore	8	4	3	6	3	2	84	96	95
Thailand	35	19	12	29	16	11	80	94	98
Viet Nam	50	34	22	36	26	17	88	97	96
The Pacific^a	89	68	51	66	52	40	70	65	64
Cook Islands	19	17	10	16	15	8	67	76	89
Fiji	30	22	16	25	19	14	84	81	94
Kiribati	88	65	47	64	50	38	75	80	90
Marshall Islands	52	38	26	41	31	22	52	94	97
Micronesia, Fed. States of	56	49	42	44	39	34	81	85	92
Nauru	40	40	40	32	32	32	99 (1997)	7	99
Palau	32	25	19	27	20	14	98	83	85
Papua New Guinea	88	72	58	64	54	45	67	62	60
Samoa	30	23	19	25	19	16	89	93	67
Solomon Islands	42	31	22	34	25	18	70	85	73
Timor-Leste	180	109	54	135	86	46	...	56 (2002)	62
Tonga	25	20	15	21	17	13	86	95	99
Tuvalu	58	43	30	45	35	25	95	81	98
Vanuatu	39	23	13	31	20	11	66	61	52
Developed Member Economies^a	7	5	4	5	4	3	76	95	94
Australia	9	6	5	8	5	4	86	91	94
Japan	6	5	3	5	3	2	73	96	94
New Zealand	11	7	6	9	6	5	90	85	93
DEVELOPING MEMBER ECONOMIES^a	85	67	43	62	51	34	74	69	86
REGIONAL MEMBERS^a	84	66	42	61	50	33	74	70	86
WORLD	87	73	50	61	51	36	72	72	84

... = Data not available at cutoff date.

a Aggregates are derived for reporting economies only.

Sources: Millennium Indicators Database Online (UNSD 2013); for Hong Kong, China: Census and Statistics Department and Centre for Health Protection, Department of Health; for Taipei, China: Directorate-General of Budget, Accounting and Statistics; ADB estimates.