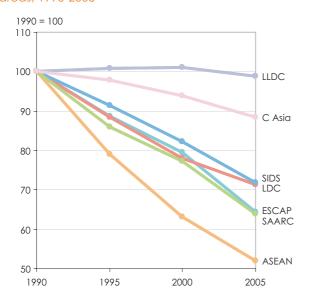
## 4. Child health

In 2005, 10 million children under the age of five died across the world; over 4 million of these deaths occurred in Asia and the Pacific.

Although the under-five mortality rate (58 per 1,000 live births) is considerably lower than in Africa (153 per 1,000 live births), the absolute number of children dying before their fifth birthday in Asia and the Pacific is comparable to that of Africa. Among all developing regions, the Latin American and Caribbean region has the lowest child mortality rate.

From 1990 to 2005, the Asian and the Pacific region managed to reduce the under-five mortality rate considerably, from 90 children per 1,000 live births to 58. During the same period, Latin America and the Caribbean experienced an even faster reduction, but in Africa there was a more modest reduction, from 172 to 153.

Figure 4.1 Index of change in the child mortality rates for selected groups of Asian and Pacific countries/areas, 1990-2005



Within the ESCAP region, under-five mortality was reduced most rapidly in the ASEAN region, where the rate dropped from 77 child deaths per 1,000 live births to 40, a reduction of nearly half. However, despite the overall progress in ASEAN countries, Cambodia, the Lao People's Democratic Republic and Myanmar are still among the 20 countries with the highest under-five mortality rates in the Asian and Pacific region.

The rate of under-five mortality in the SAARC region has also fallen, albeit at a slower pace. From 129 deaths per 1,000 live births in 1990, it came down to 82 in 2005, but, as children constitute

a large population group in the SAARC countries, this means that, every year, more than 3 million children still die before reaching their fifth birthday.

Among the landlocked developing countries of the Asian and Pacific region, there has been only a marginal reduction in the under-five mortality rate, which currently stands at 134 deaths per 1,000 live births. Armenia is the only country in this group that is not among the 20 countries with the highest under-five mortality rates in the Asian and Pacific region, but the most worrying case is that of Afghanistan, where the under-five mortality rate has barely moved. With 257 child deaths per 1,000 live births, Afghanistan has the fourth highest under-five mortality rate in the world, after Sierra Leone, the Niger and Angola.

According to WHO, most child deaths occur in the first year of life. Of the 58 under-five deaths per 1,000 live births in Asia and the Pacific that occurred in 2005, 44 were among infants (see figure 4.3). In the Central Asian subregion, the under-five mortality rate is 72 deaths per 1,000 live births, and 60 of those — a staggering 83 per cent — are infant deaths.

As in the case of under-five mortality, the South-East Asian subregion reduced infant mortality at the fastest pace within the Asian and Pacific region. The SAARC region, however, reduced infant mortality between 1990 and 2005 at a much faster pace than under-five mortality. Bangladesh and Nepal almost halved their infant mortality rates between 1990 and 2005. Bhutan and India also made significant progress during this period.

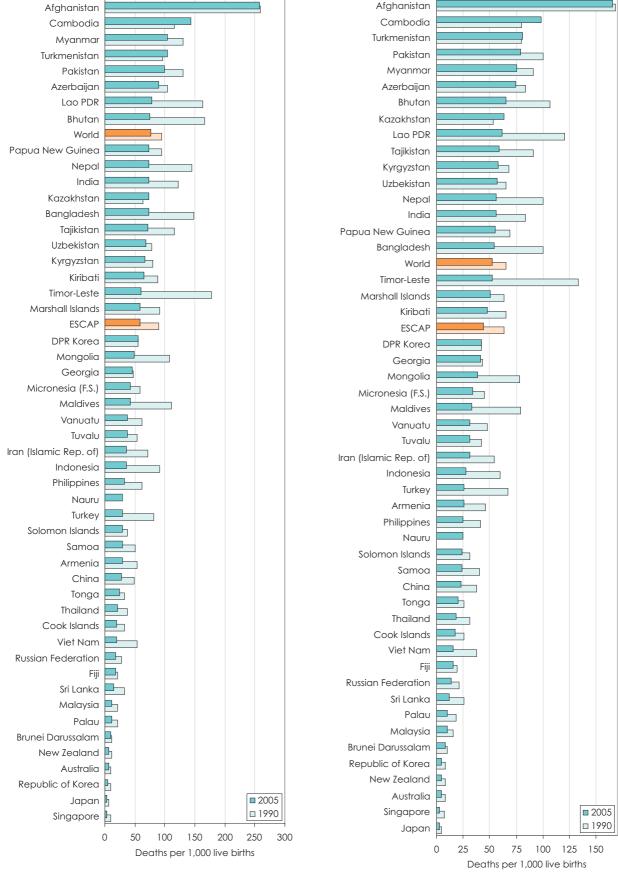
Overall, the Asian and Pacific region has reduced infant mortality at a faster pace than underfive mortality, and this may be related to two of the main interventions that, according to WHO, reduce child deaths: reducing malnutrition and increasing immunization coverage.

The main cause of infant and child mortality is malnourishment. According to some estimates from WHO, over 50 per cent of all under-five deaths are caused by malnutrition. The prevalence of moderately or severely underweight children is a direct indicator for monitoring nutritional status among children under 5 years of age.

Although there is insufficient data to calculate subregional estimates for Asia and the Pacific, UNICEF estimates suggest that South Asia has the highest percentage of underweight children in the world. According to WHO, half of the world's

Figure 4.2 Under-five mortality rates in Asia and the Pacific, 1990 and 2005





150 million malnourished children live in this subregion.

The prevalence of children underweight is close to half in Bangladesh, India and Nepal. Afghanistan and Pakistan, at close to 40 per cent, also have high rates of underweight children (see table 4.1).

As the available data is insufficient to establish trends, there is no clear sign of progress on this indicator in most countries. Among the few countries for which it is possible to track progress is Bangladesh, which has reduced the proportion of underweight children from nearly two thirds to less than one half.

One of the better-performing countries, Malaysia reduced the proportion of underweight children from 23 per cent in 1993 to 11 per cent in 2003. China and Turkey also more than halved the number of underweight children during a similar period, from 19 to 8 per cent and from 10 to 4 per cent, respectively.

ASEAN countries such as the Philippines and Viet Nam, despite having made progress in reducing poverty, have yet to experience equal progress in reducing child malnourishment. In the Lao People's Democratic Republic and Cambodia, over 40 per cent of all children under 5 years of age are underweight. The prevalence of underweight children in Cambodia increased from 40 per cent to 45 per cent between 1994 and 2000.

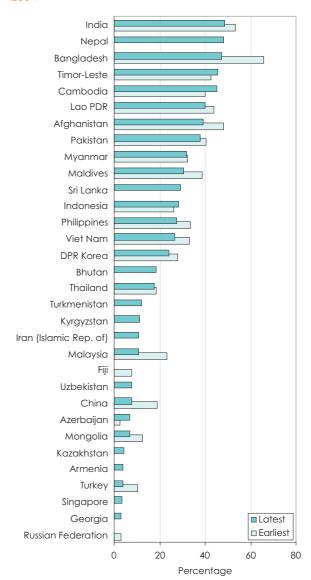
Measles, an easily preventable disease, is still responsible for 4 per cent of all infant and child deaths in the world. Although three quarters of all one-year-old children in the Asian and Pacific region had been immunized by 2005, wide disparities remain among subregions.

Central Asia has a measles immunization rate of 97 per cent, which is even higher than the 90 per cent of North America and Europe. In ASEAN countries, four out of five one-year-olds are vaccinated, but immunization rates are as low as 66 per cent in small island developing States and 64 per cent in SAARC countries, which is lower than the 66 per cent achieved in Africa.

Income differentials are important determinants of immunization. High-income countries in the region have an immunization rate close to 100 per cent, while middle- and low-income countries manage to achieve 85 and 66 per cent, respectively.

Out of the 10 countries with the lowest immunization rates in the Asian and Pacific region, 7 are small island developing States. This poor performance is partly due to their geographical circumstances, but there are other countries not in

Figure 4.4 Prevalence of moderately or severely underweight children in Asia and the Pacific, 1990 and 2004

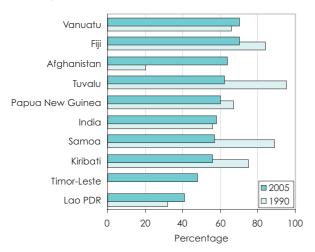


the category of small island developing States that also perform poorly in this area. At just 41 per cent, the Lao People's Democratic Republic has the lowest measles immunization rate in Asia and the Pacific; only a few African countries, such as Chad and Somalia, are further behind. Afghanistan and India round out the list of Asian and Pacific countries with the 10 lowest immunization rates.

Disparities in immunization rates among different income groups within countries can be substantial. While Cambodia, for instance, has an immunization rate close to the ASEAN average, 80 per cent of children living in households in the upper income quintile are immunized, as opposed to only half of those living in households in the lowest income quintile.

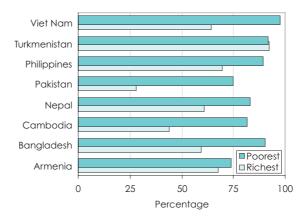
This is also the case for SAARC countries. In Bangladesh and Nepal, for example, over 80 per cent of children living in households belonging to the upper income quintile are immunized, compared with less than 61 per cent of those living in low-income households.

Figure 4.5 The 10 Asian and Pacific countries with the lowest measles immunization rates for one-year-old children, 1990 and 2005



Only Central Asian countries, such as Armenia and Turkmenistan, have no significant disparities in immunization rates between high and low income quintiles.

Figure 4.6 Measles immunization rates for one-yearold children in the richest and poorest income quintiles of selected Asian and Pacific countries/areas (latest year between 1991 and 2004)



Infant mortality rate (deaths per 1,000 live births): The probability of a child born in a specified year dying before reaching the age of one if subject to current age-specific mortality rates, expressed per 1,000 live births. *Aggregates:* Averages are calculated using total number of live births as weight. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed in September 2007).

**Under 5 mortality rate (deaths per 1,000 live births):** The probability of a child born in a specified year dying before reaching the age of five if subject to current age-specific mortality rates, expressed per 1,000 live births. *Aggregates:* Averages are calculated using total number of live births as weight. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed in September 2007).

Prevalence of underweight children (% of children under 5): The proportion of children aged 0-59 months who fall below by more than three standard deviations from the median weight for age of the NCHS/WHO standard reference population. In a normally distributed population only 0.13 per cent of children would be expected to be severely underweight. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed in September 2007).

Proportion of one-year-old children immunized against measles (percentage): The proportion of one-year-old

children who have received at least one dose of measles vaccine. *Aggregates:* Averages are calculated using the population of children aged one as weight. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed in September 2007).

Proportion of one-year-old children immunized against measles, poorest quintile (percentage): The proportion of one-year-old children in the poorest wealth quintile who have received at least one dose of measles vaccine. *Source:* World Health Organization, WHO Statistical Information System, (online database, accessed in September 2007).

Proportion of one-year-old children immunized against measles, richest quintile (percentage): The proportion of one-year-old children in the richest wealth quintile who have received at least one dose of measles vaccine. *Source:* World Health Organization, WHO Statistical Information System, (online database, accessed in September 2007).

Children immunized against DPT3 (percentage): The percentage of one-year-olds who have received three doses of the combined diphtheria, pertussis and tetanus toxoid (DPT3) vaccine in a given year. *Aggregates:* Averages are calculated using the population of children aged one as weight. *Source:* World Health Organization, WHO Statistical Information System, (online database, accessed in September 2007).

## 4.1 Child health

	In	fant mo	rtality ra	ate			ortality		Prevalence of underweight children				
	Deaths per 1,000 live births				Deaths per 1,000 live births						en under 5		
	1990	1995	2000	2005	1990	1995	2000	2005	Earl	iest	Lat	est	
East and North-East Asia	20	0.7	20	00	40	40	44	07	40.4	(00)	7.0	(0.0)	
China DPR Korea	38 42	37 42	33 42	23 42	49 55	46 55	41 55	27 55	19.1 27.9	(90) (00)	7.8 23.9	(02) (04)	
Hong Kong, China	72	72	72	72	00	00	00	00	21.5	(00)	20.0	(04)	
Macao, China													
Mongolia	78	64	50	39	108	87	65	49	12.3	(92)	6.7	(04)	
Republic of Korea	8	6	5	5	9	6	5	5		,		,	
South-East Asia													
Brunei Darussalam	10	8	8	8	11	9	9	9					
Cambodia	80	88	95	98	115	120	135	143	39.8	(94)	45.2	(00)	
Indonesia	60	48	36	28	91	66	48	36	26.4	(99)	28.2	(03)	
Lao PDR	120	99	77	62	163	131	101	79	44.0	(93)	40.0	(00)	
Malaysia	16	13	11	10	22	17	14	12	23.3	(93)	10.6	(03)	
Myanmar	91	83	78	75	130	117	110	105	32.4	(90)	31.8	(03)	
Philippines	41	35	30	25	62	49	40	33	33.5	(90)	27.6	(03)	
Singapore	7	4	3	3	9	5	4	3	40.0		3.4	(00)	
Thailand	31	23	19	18	37	26	22	21	18.6	(93)	17.6	(95)	
Timor-Leste	133	118	85	52	177	154	107	61	42.6	(02)	45.8	(03)	
Viet Nam	38	32	23	16	53	44	30	19	33.1	(00)	26.6	(04)	
South and South-West Asia													
Afghanistan	168	165	165	165	260	257	257	257	48.0	(97)	39.3	(04)	
Bangladesh	100	83	66	54	149	120	92	73	65.8	(90)	47.5	(04)	
Bhutan	107	93	77	65	166	133	100	75	E0 /	(0-)	18.7	(99)	
India	84	74	69	56	123	104	94	74	53.4	(93)	48.5	(99)	
Iran (Islamic Rep. of)	54	43	36	31	72	55	44	36	20.0	(0.4)	10.9	(98)	
Maldives Nepal	79 100	63 84	45 69	33 56	111 145	86 120	60 95	42 74	38.9	(94)	30.4 48.3	(01)	
Pakistan	100	93	85	79	130	118	108	99	40.4	(91)	37.8	(01)	
Sri Lanka	26	21	16	12	32	25	19	14	40.4	(91)	29.4	(00)	
Turkey	67	52	38	26	82	63	44	29	10.4	(93)	3.9	(00)	
•	01	02	00	20	02	00		20	10.1	(00)	0.0	(00)	
North and Central Asia	46	38	32	26	54	44	36	29			4.0	(05)	
Armenia	84	80	32 77	26 74	105	98	93	29 89	2.6	(00)	6.8	(05)	
Azerbaijan Georgia	43	41	41	41	47	96 45	93 45	69 45	2.0	(00)	3.1	(01) (99)	
Kazakhstan	53	57	63	63	63	67	73	73			4.2	(99)	
Kyrgyzstan	68	63	60	58	80	74	70	67			11.0	(97)	
Russian Federation	21	22	19	14	27	29	24	18			3.0	(95)	
Tajikistan	91	90	75	59	115	114	93	71			0.0	(00)	
Turkmenistan	80	72	77	81	97	89	99	104			12.0	(00)	
Uzbekistan	65	62	59	57	79	75	71	68			7.9	(02)	
Pacific													
American Samoa													
Cook Islands	26	24	20	17	32	29	24	20					
Fiji	19	17	16	16	22	19	18	18			7.9	(93)	
French Polynesia												, ,	
Guam													
Kiribati	65	57	52	48	88	77	70	65					
Marshall Islands	63	59	55	51	92	81	68	58					
Micronesia (F.S.)	45	41	37	34	58	52	47	42					
Nauru		25	25	25		30	30	30					
New Caledonia													
Niue													
Northern Mariana Is.	10	15	10	10	24	17	1.1	11					
Palau Panua New Guinea	18 69	15 64	13 60	10 55	21 94	17 87	14 80	11 74					
Papua New Guinea Samoa	40	33	28	24	50	41	34	74 29					
Solomon Islands	31	29	26	24	38	35	32	29					
Tonga	26	24	22	20	32	29	26	24					
Tuvalu	42	38	35	31	54	48	43	38					
Vanuatu	48	40	38	31	62	50	48	38					
ESCAP Developed Economies													
Australia	8	6	6	5	10	7	6	6					
Japan	5	4	3	3	6	6	5	4					
New Zealand	8	7	6	5	11	9	8	6					
	0	-	0		- 11		0	<u> </u>					
ESCAP	64	59	53	44	90	80	71	58					
LLDC	98	97	97	94	136	137	138	134					
LDC	105	94	84	77	155	137	121	110					
SIDS	58	54	49	43	78	72	64	56					
ASEAN	53	44	36	30	77	61	49	40					
SAARC	89	79	73	62	129	111	99	82					
Central Asia	67	66	63	60	81	79	76	72					
Low-income	86	77	71	60	124	108	97	81					
Middle-income	41	38	32	24	55	48	41	29					
High-income	6	5	4	4	8	6	5	5					
Africa	104	102	96	92	172	168	159	153					
Latin America & Carib.	43	36	30	26	54	44	36	31					
North America	9	8	7	6	12	9	9	7					
Europe	12	9	7	6	14	11	9	7					
Other Asia-Pacific	47	58	55	53	62	73	70	66					
				52	95			76					

## 4.2 Child immunization, one-year olds

	Total			lmmu	nized against measles Poorest quintile			Richest quintile			Immunized against DPT3			
	1990	1995	2000	2005	Perce Earliest	ntage <b>Lat</b>	oet	Earliest	l a	est	1990	Perce 1995	entage 2000	200
East and North-East Asia	1330	1333	2000	2003	Larnest	Lat	csi	Larnest	La	.csi	1330	1333	2000	200
China	98	80	85	86							97	92	85	8
DPR Korea	98	67	78	96							98	96	80	7
Hong Kong, China		٠.												
Macao, China														
Mongolia	92	85	94	99							69	88	95	ç
Republic of Korea	93	93	95	99							74	99	97	ç
South-East Asia														
Brunei Darussalam	99	99	99	97							99		99	ç
Cambodia	34	62	65	79		44	(00)		82	(00)	38	79	50	8
Indonesia	58	63	72	72		44	(00)		02	(00)	88	92	77	Ç
Lao PDR	32	68	42	41							18	54	53	2
	70	82	88	90							90	90	95	
Malaysia Myanmar	90	82	84	72							69	84	82	
•	85	72	81	80		70	(02)		89	(02)	88	86	79	
Philippines	84	97	96	96		70	(03)		09	(03)	85	95	95	(
Singapore				96									95	
Thailand	80	91	94								85	94	97	(
Timor-Leste			.=	48										į
Viet Nam	88	95	97	95		64	(02)		98	(02)	88	93	96	(
South and South-West Asia														
Afghanistan	20	41	35	64							25		31	7
Bangladesh	65	79	76	81		60	(04)		91	(04)	69	91	68	7
Bhutan	93	85	76	93							84	87	92	(
India	56	72	56	58							99	91	94	
Iran (Islamic Rep. of)	85	95	99	94							91	99	99	Ç
Maldives	96	96	99	97							94	94	97	ç
Nepal	57	56	71	74		61	(01)		83	(01)	80	65	80	-
Pakistan	50	47	56	78	28 (91)	31	(0.)	75 (91)	30	(01)	83	58	78	8
Sri Lanka	80	87	99	99	(01)			(01)			86	93	99	(
Turkey	78	65	86	91							74	66	80	ç
	70	00	00	31							74	00	00	•
North and Central Asia														
Armenia		96	92	94		68	(00)		74	(00)		98	93	ξ
Azerbaijan		97	99	98								96	99	(
Georgia		61	73	92								54	98	8
Kazakhstan		95	99	99								93	97	(
Kyrgyzstan		97	98	99								93	99	(
Russian Federation		85	97	99								78	96	(
Tajikistan		70	87	84							86	96	97	ć
Turkmenistan		92	97	99		92	(00)		92	(00)		93	97	Ś
Uzbekistan		91	99	99								89		ç
Pacific														
American Samoa														
Cook Islands	67	96	76	99							93	93	97	ç
Fiji	84	94	85	70							82	97	31	7
French Polynesia	0-	J-T	00	70							02	31		
Guam														
Kiribati	75	47	80	56							97	60	90	7
Marshall Islands	52	57	94	86							92	70	39	
Micronesia (F.S.)	81	90	82	96							85	83	85	
` '	01	90												
Nauru			8	80							74	56	44	8
New Caledonia	00	0.4	00	00								00	00	
Niue	99	34	99	99								99	99	8
Northern Mariana Is.	00			00										
Palau	98	99	83	98							99	99	96	9
Papua New Guinea	67	42	62	60							68	62	59	6
Samoa	89	96	93	57							90	94	99	6
Solomon Islands	70	68	87	72							77	69		7
Tonga	86	94	95	99							94	95	95	Ś
Tuvalu	95	94	81	62							99	87	75	(
Vanuatu	66	60	94	70							76	73	90	(
ESCAP Developed Economies	S													
Australia	86	87	91	94							95	86	90	ç
Japan	73	93	96	99							87	74	85	
New Zealand	90	84	85	82							90	89	90	8
Louidill	50	04	33	02							30	00	30	(
ESCAP	74	75	72	75							92	88	86	8
LLDC		70	71	80							J_	82	68	8
LDC	62	71	70	76							64	85	65	-
SIDS	74	63	73	66							75	75	69	6
ASEAN	74	75	80	80							84	90	82	3
SAARC	56	69	58	64							92	87	88	8
Central Asia	30	89	96	97							32	91	00	ç
	50			97 66							04		07	
Low-income	58	71	61 85								91	87	87 85	3
Middle-income	90	78	85	85							94	90	85	-
High-income	81	92	95	98							84	84	89	
Africa	60	58	58	66							59	58	58	7
Latin America & Carib.	76	87	89	92							71	85	90	ç
North America	90	89	91	93								95	94	
Europe	81	87	90	91							89	93	93	(
Other Asia-Pacific	81	79	88	90							89	85	,,,	Ç
5. 7 .0.0 . 40110	01	, 5	30								33	30		
World	77			77							78			7