

10 Financial and human resources for health

Many governments in Asia and the Pacific have been devoting more resources to health – both as a proportion of GDP and of total government expenditure.

In 2005, for the region as a whole, government health expenditures were 6.4 per cent of GDP. Expenditures tend to be highest in small island developing States because of the expense of reaching sparse populations separated by large distances. In the Pacific subregion, for example, health expenditures were 8.8 per cent of GDP and they were also high in Timor-Leste and Maldives. In 2005, the lowest government expenditures relative to GDP were in Brunei Darussalam, Indonesia, Myanmar and Pakistan; in each case between 2.0 and 2.2 per cent. It should be noted that per capita government expenditure is also quite high in Brunei Darussalam, though the country has a large GDP and a small population.

In most parts of the region, expenditure has been rising – between 2000 and 2005 as a percentage of GDP government health expenditure rose in every subregion. It has also risen in most countries or areas – exceeding 10 per cent. A cause for concern, however, is that in several countries where the proportion was already low it declined further between 2000 and 2005 – to below 6.0 per cent in Azerbaijan, Georgia, the Lao People's Democratic Republic, Myanmar, Pakistan, the Philippines, Singapore and Viet Nam.

As might be expected, total expenditure on health, public and private, is greater in richer countries – even after adjusting for the cost of living by using purchasing power parity dollars (\$PPP). In five high-income economies, per capita expenditure in 2005 was more than \$PPP 1,000, while in several low-income economies it was less than \$PPP 100. The pattern is similar for government health expenditure, though the disparities between countries are greater. In countries that spend more per capita on health a higher proportion of this is

spent by governments – 83 per cent in Japan, for example, 77 per cent in New Zealand and 67 per cent in Australia, compared with only 11 per cent in Myanmar, 18 per cent in Pakistan, 19 per cent in India and 26 per cent in Viet Nam.

Of the private expenditure on health, some comes from insurance plans, or is provided by employers or by non-profit institutions. But 82 per cent comes from out-of-pocket (OOP) expenditure as households pay directly for medical care and services. In countries where private expenditure is dominant, OOP expenditure can represent a high proportion of a country's total health expenditure. For example, in Singapore 68 per cent of total expenditure is private, of which 94 per cent is out of pocket, which thus accounts for 64 per cent of all the country's health expenditure. On the other hand in the Islamic Republic of Iran, private expenditure is only 44 per cent of total expenditure on health, so although 95 per cent is OOP this accounts for only 42 per cent of all health expenditure. In Turkey, the proportion is even lower: OOP accounts for only 20 per cent of total health expenditure. Other countries with low proportions are Australia (18 per cent), Japan (14 per cent) and New Zealand (17 per cent).

Differences in per capita income across the region are also reflected in the availability of health personnel. In general, high-income economies in Asia and the Pacific have between 1.5 and 3.0 physicians per 1,000 population whereas most low- and middle-income economies have less than one. All the countries in the North and Central Asia subregion on the other hand are better supplied with doctors, with ratios ranging from 2 in Turkmenistan to 4.6 in Georgia.

There are also wide disparities between countries in the number of nursing and midwifery personnel. The number per 1,000 population is 85 or more in Australia, Japan, New Zealand and the Russian Federation but 10 or less in several low-income economies.

10. Financial and human resources for health

Figure 10.1

Proportion of government expenditure devoted to health, Asia and the Pacific, 2000 and 2005

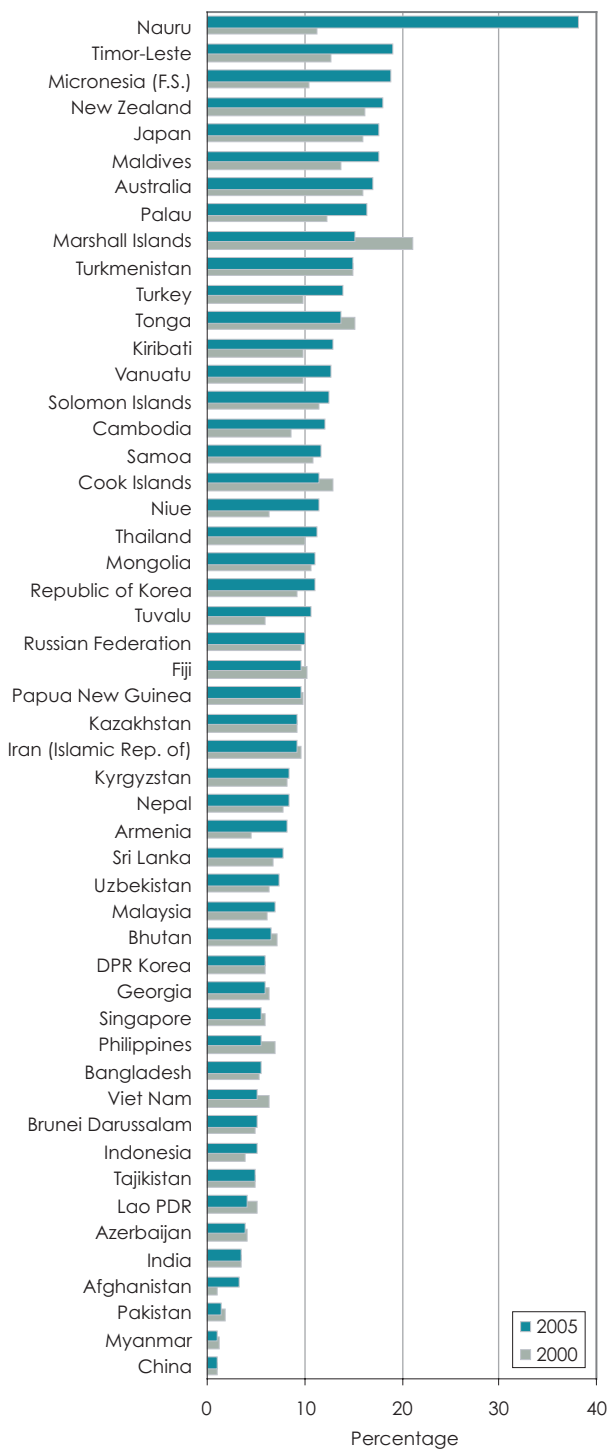


Figure 10.2

Per capita total expenditure on health in low-income economies of Asia and the Pacific, 2000 and 2005

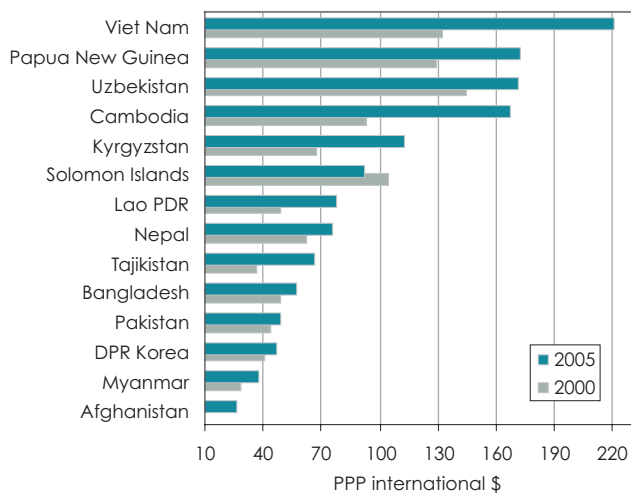


Figure 10.3

Out-of-pocket expenditure as a proportion of total private health expenditure, Asia and the Pacific, 2000 and 2005

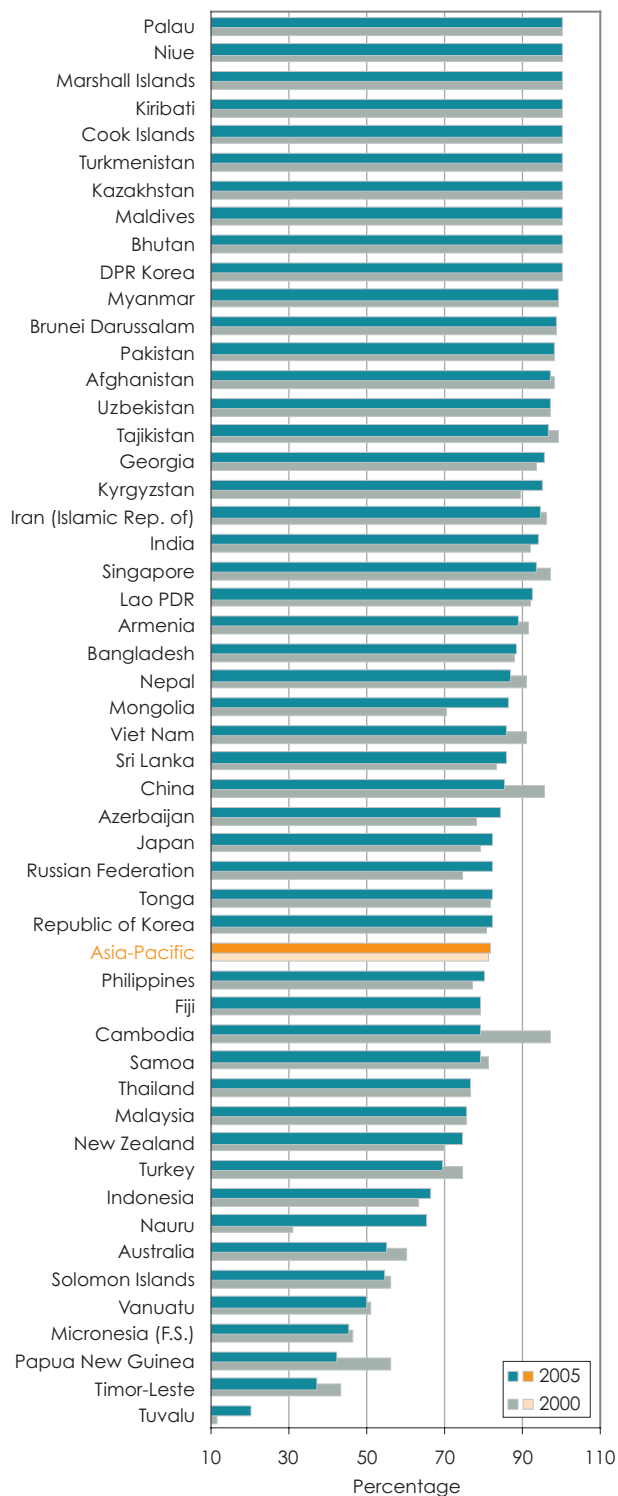
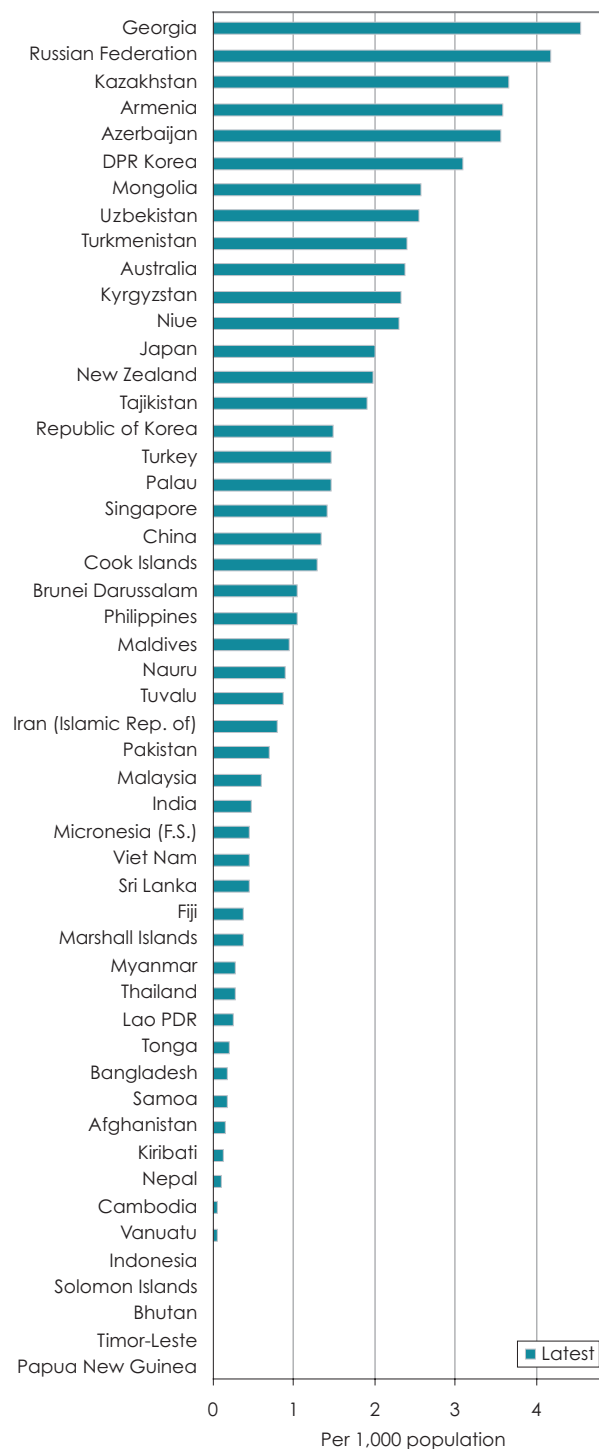


Figure 10.4

Number of physicians, Asia and the Pacific, 2000-2006



Total health expenditure (% of GDP)

Level of total expenditure on health as a percentage of gross domestic product (GDP). Total expenditure on health comprises the funds mobilized by the system, being the sum of General Government and Private Expenditure on Health. **Aggregates:** Averages are calculated using current GDP in US dollars as weight. **Source:** WHO Statistical Information System (WHOSIS) (online database, accessed on 16 June 2008).

General government health expenditure (% of total government expenditure)

The sum of outlays for health maintenance, restoration or enhancement paid for in cash or supplied in kind by government entities, such as the Ministry of Health, other ministries, parastatal organizations or social security agencies (without double counting government transfers to social security and extrabudgetary funds). It includes transfer payments to households to offset medical care costs and extrabudgetary funds to finance health services and goods. The revenue base of these entities may comprise multiple sources, including external funds. General government expenditure corresponds to the consolidated outlays of all levels of government: territorial authorities (Central/Federal Government, Provincial/Regional/State/District authorities, Municipal/Local governments), social security institutions and extrabudgetary funds, including capital outlays. **Aggregates:** None. **Source:** WHO Statistical Information System (WHOSIS) (online database, accessed on 16 June 2008).

Per capita total expenditure on health (purchasing power parity (PPP) international dollar)

The sum of general government and private expenditure expressed in international (PPP) dollars divided by mid-year population. **Aggregates:** None. **Source:** WHO Statistical Information System (WHOSIS) (online database, accessed on 11 August 2008).

Per capita government expenditure on health (purchasing power parity (PPP) international dollar)

Government expenditure on health in PPP international dollars divided by mid-year population. See also definition of *general government health expenditure*. **Aggregates:** None. **Source:** WHO Statistical Information System (WHOSIS) (online database, accessed on 11 August 2008).

Private expenditure on health (% of total expenditure on health)

The sum of outlays for health by private entities, such as commercial or mutual health insurance providers, non-profit institutions serving households, resident corporations

and quasi-corporations not controlled by government with a health services delivery or financing, and direct household out-of-pocket payments, expressed as a proportion of total health expenditure. **Aggregates:** None. **Source:** WHO Statistical Information System (WHOSIS) (online database, accessed on 16 June 2008).

Out-of-pocket expenditure on health (% of private expenditure on health)

The direct outlay of households, including gratuities and payments in kind, made to health practitioners and suppliers of pharmaceuticals, therapeutic appliances and other goods and services, whose primary intent is to contribute to the restoration or to the enhancement of the health status of individuals or population groups, expressed as a proportion of total health expenditure. It includes household payments to public services, non-profit institutions and non-governmental organizations. It includes non-reimbursable cost sharing, deductibles, co-payments and fee-for-service, but excludes payments made by companies that deliver medical and paramedical benefits, whether required by law or not, to their employees. It excludes payments for overseas treatment. **Aggregates:** Averages are calculated using current GDP in US dollars as weight. **Source:** WHO Statistical Information System (WHOSIS) (online database, accessed on 16 June 2008).

Number of physicians (per 1,000 population)

The number of all physicians (general and specialist), expressed per 1,000 population. **Aggregates:** None. **Source:** WHO Statistical Information System (WHOSIS) (online database, accessed on 11 August 2008).

Number of nursing and midwifery personnel (per 10,000 population)

The total number of professional nurses, professional midwives, auxiliary nurses, auxiliary midwives, enrolled nurses, enrolled midwives and other personnel, such as dental nurses and primary care nurses, expressed per 10,000 population. Traditional birth attendants are included. **Aggregates:** None. **Source:** WHO Statistical Information System (WHOSIS) (online database, accessed on 11 August 2008).

Number of hospital beds (per 10,000 population)

The number of in-patient beds, expressed per 10,000 population. Maternity beds are included while cots and delivery beds are excluded. **Aggregates:** None. **Source:** WHO Statistical Information System (WHOSIS) (online database, accessed on 11 August 2008).

10.1 Financial resources for health

	Total health expenditure			General government health expenditure			Per capita total expenditure on health			Per capita government expenditure on health		
	% of GDP			% of total government expenditure			International dollars (PPP)					
	2000	2004	2005	2000	2004	2005	2000	2004	2005	2000	2004	2005
East and North-East Asia	6.8	6.9	6.9									
China	4.6	4.7	4.7	1.1	1.0	1.0	183	279	315	70	106	122
DPR Korea	3.6	3.5	3.5	6.0	6.0	6.0	41	46	47	35	39	41
Hong Kong, China												
Japan	7.6	8.0	8.2	16.0	17.8	17.7	1 967	2 337	2 474	1 598	1 910	2 047
Macao, China												
Mongolia	5.6	5.0	4.3	10.7	10.3	11.0	104	120	113	83	96	87
Republic of Korea	4.4	5.5	6.0	9.3	10.3	11.0	718	1 129	1 280	364	590	679
South-East Asia	3.0	3.3	3.3									
Brunei Darussalam	2.5	2.2	2.0	5.0	4.8	5.1	457	458	421	381	358	335
Cambodia	5.8	6.6	6.4	8.7	14.0	12.0	93	150	167	21	44	41
Indonesia	1.7	2.1	2.1	3.8	4.5	5.1	48	74	78	19	30	36
Lao PDR	3.2	3.9	3.6	5.2	5.2	4.1	49	76	78	16	15	16
Malaysia	3.3	4.5	4.2	6.2	7.9	7.0	280	459	454	147	230	203
Myanmar	2.1	2.2	2.2	1.2	1.4	1.1	29	36	38	4	5	4
Philippines	3.5	3.3	3.2	7.0	5.7	5.5	170	194	199	81	74	73
Singapore	3.4	3.7	3.5	6.0	5.3	5.6	874	1 094	1 140	322	328	363
Thailand	3.4	3.5	3.5	10.0	11.5	11.3	226	300	323	127	194	207
Timor-Leste	8.8	10.3	13.7	12.7	12.2	19.1	93	110	145	66	90	126
Viet Nam	5.4	5.7	6.0	6.4	4.7	5.1	132	188	221	40	51	57
South and South-West Asia	4.4	5.0	5.2									
Afghanistan	3.3	4.4	5.2	1.1	2.1	3.3	11	20	26	1	3	5
Bangladesh	3.1	3.1	2.8	5.3	6.2	5.5	49	60	57	13	17	17
Bhutan	5.4	4.2	4.0	7.2	6.1	6.5	84	84	85	63	59	60
India	4.3	4.9	5.0	3.4	3.1	3.5	60	88	100	13	16	19
Iran (Islamic Rep. of)	5.9	6.2	7.8	9.6	7.5	9.2	364	503	677	135	221	378
Maldives	6.8	7.8	12.4	13.7	16.0	17.7	357	563	878	271	439	751
Nepal	5.4	5.7	5.8	7.7	8.7	8.4	62	72	76	15	20	21
Pakistan	2.5	2.2	2.1	1.8	1.6	1.5	44	47	49	9	9	9
Sri Lanka	3.7	4.2	4.1	6.8	8.2	7.8	127	177	189	61	81	88
Turkey	4.9	5.9	5.7	9.8	14.2	13.9	432	572	592	272	412	422
North and Central Asia	5.3	5.1	5.1									
Armenia	6.4	5.7	5.4	4.6	8.3	8.2	154	242	270	27	73	89
Azerbaijan	4.8	4.0	3.9	4.2	3.4	3.8	115	152	193	21	33	48
Georgia	7.4	8.5	8.6	6.4	5.3	5.9	161	276	318	27	43	62
Kazakhstan	4.1	3.8	3.9	9.2	10.2	9.3	177	263	306	91	159	197
Kyrgyzstan	4.7	5.7	6.0	8.3	8.2	8.4	68	106	113	30	42	45
Russian Federation	5.4	5.2	5.2	9.6	9.7	10.1	375	505	561	224	301	348
Tajikistan	4.6	4.4	5.0	4.9	4.6	5.0	37	54	67	7	12	15
Turkmenistan	4.8	4.5	4.8	14.9	14.9	14.9	211	230	308	156	153	205
Uzbekistan	5.8	4.9	5.0	6.3	7.5	7.4	145	156	171	65	72	82
Pacific	8.2	8.7	8.8									
Australia	8.3	8.8	8.8	16.0	16.8	17.0	2 265	2 885	3 001	1 518	1 930	2 012
American Samoa												
Cook Islands	6.1	4.8	4.6	13.0	13.2	11.5	543	594	587	493	546	537
Fiji	4.7	4.4	4.1	10.3	10.1	9.6	245	280	271	169	200	192
French Polynesia												
Guam												
Kiribati	11.6	13.7	12.7	9.8	9.3	13.0	228	292	283	209	272	261
Marshall Islands	22.0	13.2	15.4	21.1	13.0	15.2	764	485	582	748	468	565
Micronesia (F.S.)	9.0	11.7	13.5	10.5	16.1	18.9	333	449	539	292	406	494
Nauru	11.0	10.4	10.3	11.2	32.9	38.1	622	692	716	467	433	382
New Caledonia												
New Zealand	8.1	8.5	8.9	16.2	17.2	18.0	1 686	2 067	2 223	1 333	1 596	1 720
Niue	8.0	15.5	14.5	6.3	12.3	11.5	118	302	300	116	299	296
Northern Mariana Is.												
Palau	9.7	9.7	9.6	12.3	14.7	16.4	716	845	901	639	771	819
Papua New Guinea	3.6	4.5	4.2	9.9	10.0	9.6	129	173	172	105	147	148
Samoa	5.5	4.9	4.9	10.8	8.2	11.6	186	204	218	132	168	175
Solomon Islands	5.2	6.0	4.3	11.4	18.8	12.6	105	120	92	99	113	85
Tonga	5.8	5.3	5.0	15.2	14.0	13.7	250	268	254	183	205	192
Tuvalu	13.4	9.2	8.8	5.9	9.6	10.6	157	149	150	145	136	135
Vanuatu	4.4	4.3	4.3	9.8	12.2	12.8	136	131	133	92	85	87
Asia and the Pacific	6.3	6.4	6.4									
LLDC	4.8	4.3	4.4									
LDC	3.5	3.6	3.6									
ASEAN	3.0	3.3	3.3									
ECO	4.7	5.1	5.4									
SAARC	4.0	4.4	4.5									
Central Asia	5.0	4.5	4.5									
Pacific island dev. econ.	4.8	5.1	4.8									
Low-income	3.5	3.5	3.4									
Middle-income	4.4	4.7	4.8									
High-income	7.3	7.7	7.9									
Other world regions												
Africa	5.4	5.7	5.6									
Europe	8.6	9.3	9.4									
Latin America & Carib.	6.8	6.9	7.0									
North America	12.9	14.8	14.7									
Other countries/areas	4.9	4.6	4.2									
World	9.2	9.9	9.9									

10. Financial and human resources for health

10.2 Financial, human and other resources on health

	Private expenditure on health			Out-of-pocket expenditure on health			Physicians	Number of Nursing and mid-wifery personnel	Hospital beds
	% of total expenditure on health			% of private expenditure on health			Per 1,000 population	Per 10,000 population	
	2000	2004	2005	2000	2004	2005	Latest	Latest	Latest
East and North-East Asia				82	84	83			
China	62	62	61	96	87	85	1.4 (03)	10 (03)	22 (06)
DPR Korea	14	14	14	100	100	100	3.2 (03)	41 (03)	
Hong Kong, China									
Japan	19	18	17	79	84	82	2.1 (04)	95 (04)	141 (05)
Macao, China									
Mongolia	20	20	23	71	85	87	2.7 (02)	35 (02)	64 (06)
Republic of Korea	49	48	47	81	82	82	1.6 (03)	19 (03)	86 (06)
South-East Asia				77	77	77			
Brunei Darussalam	17	22	20	99	99	99	1.1 (02)	61 (02)	30 (05)
Cambodia	78	70	76	97	84	79	0.2 (00)	9 (00)	1 (04)
Indonesia	62	60	53	63	69	66	0.1 (03)	8 (03)	
Lao PDR	67	80	79	92	90	93	0.4 (04)	10 (04)	12 (05)
Malaysia	48	50	55	75	75	76	0.7 (02)	18 (02)	19 (06)
Myanmar	87	87	89	99	99	99	0.4 (04)	10 (04)	7 (00)
Philippines	52	62	63	77	79	80	1.1 (02)	61 (02)	13 (06)
Singapore	63	70	68	97	94	94	1.5 (03)	45 (03)	32 (06)
Thailand	44	35	36	77	75	77	0.4 (00)	28 (00)	
Timor-Leste	29	19	13	43	37	37	0.1 (04)	22 (04)	
Viet Nam	70	73	74	91	86	86	0.6 (02)	8 (02)	26 (05)
South and South-West Asia				89	88	88			
Afghanistan	99	84	80	98	97	97	0.2 (05)	5 (05)	4 (03)
Bangladesh	74	71	71	88	88	88	0.3 (05)	3 (05)	3 (01)
Bhutan	26	30	29	100	100	100	0.1 (07)	3 (07)	16 (01)
India	78	82	81	92	94	94	0.6 (04)	13 (04)	
Iran (Islamic Rep. of)	63	56	44	96	95	95	0.9 (05)	16 (05)	17 (05)
Maldives	24	22	14	100	100	100	1.0 (04)	27 (04)	23 (03)
Nepal	75	73	72	91	88	87	0.2 (04)	5 (04)	2 (01)
Pakistan	80	82	83	98	98	98	0.8 (05)	5 (05)	12 (05)
Sri Lanka	52	54	54	83	86	86	0.6 (04)	17 (04)	29 (00)
Turkey	37	28	29	75	69	70	1.6 (06)	29 (06)	27 (06)
North and Central Asia				78	84	84			
Armenia	82	70	67	92	98	89	3.7 (06)	49 (06)	44 (06)
Azerbaijan	82	78	75	78	81	85	3.7 (06)	84 (06)	81 (06)
Georgia	83	85	81	93	92	96	4.6 (06)	40 (06)	37 (06)
Kazakhstan	49	40	36	100	100	100	3.8 (06)	76 (06)	78 (06)
Kyrgyzstan	56	60	61	89	95	95	2.4 (06)	58 (06)	51 (06)
Russian Federation	40	40	38	75	82	82	4.3 (06)	85 (06)	97 (06)
Tajikistan	80	79	77	99	97	97	2.0 (06)	50 (06)	61 (06)
Turkmenistan	26	33	33	100	100	100	2.5 (06)	47 (06)	43 (06)
Uzbekistan	55	54	52	97	97	97	2.7 (05)	109 (05)	52 (05)
Pacific				61	57	58			
Australia	33	33	33	60	55	55	2.5 (01)	97 (01)	40 (05)
American Samoa									
Cook Islands	9	8	9	100	100	100	1.4 (04)	47 (04)	63 (05)
Fiji	31	28	29	79	79	79	0.5 (03)	20 (03)	21 (05)
French Polynesia									
Guam									
Kiribati	8	7	8	100	100	100	0.2 (04)	30 (04)	15 (05)
Marshall Islands	2	3	3	100	100	100	0.5 (00)	30 (00)	
Micronesia (F.S.)	12	10	9	46	45	45	0.6 (03)	23 (03)	33 (06)
Nauru	25	38	47	31	58	66	1.0 (04)	49 (04)	59 (04)
New Caledonia									
New Zealand	21	23	23	70	75	74	2.1 (02)	89 (03)	60 (02)
Niue	2	1	1	100	100	100	2.4 (04)	110 (04)	49 (06)
Northern Mariana Is.									
Palau	11	9	9	100	100	100	1.6 (00)	61 (04)	59 (06)
Papua New Guinea	18	15	14	56	42	43	0.1 (00)	5 (00)	
Samoa	29	18	19	81	57	79	0.3 (03)	17 (03)	10 (05)
Solomon Islands	6	6	8	56	55	55	0.1 (03)	14 (03)	15 (05)
Tonga	27	24	24	82	86	82	0.3 (02)	34 (02)	29 (04)
Tuvalu	8	9	10	12	17	20	1.0 (03)	46 (03)	56 (01)
Vanuatu	32	35	35	51	50	50	0.1 (04)	17 (04)	41 (05)
Asia and the Pacific				82	82	82			
LLDC				95	96	96			
LDC				90	90	89			
ASEAN				77	77	77			
ECO				86	84	84			
SAARC				92	94	94			
Central Asia				96	97	97			
Pacific island dev. econ.				65	60	60			
Low-income				94	93	93			
Middle-income				87	84	84			
High-income				78	80	79			
Other world regions									
Africa				72	69	70			
Europe				66	69	68			
Latin America & Carib.				75	72	71			
North America				28	26	26			
Other countries/areas				63	60	58			
World				58	59	59			