WHO-EM/HST/244/E

Eastern Mediterranean Region

Framework for health information systems and core indicators for monitoring health situation and health system performance

2018

World Health Organization
REGIONAL OFFICE FOR THE Eastern Mediterranean

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Contents

Foreword

Reliable and timely health information is essential for policy development, proper health management, evidence-based decision-making, rational use of resources, and the monitoring and evaluation of the public health situation, health care delivery and outcomes. WHO's thirteenth general programme of work (GPW 13) for 2019–2023 emphasizes the use of data for health policy development and implementation. The strong emphasis in GPW 13 on the three "1 billion" goals (1 billion more people with universal health coverage, 1 billion more people better protected from health emergencies, 1 billion more lives made healthier) gives a clear direction of work and underlines the need for greater capacity in data collection, research and health information within countries and WHO. This, together with the information requirements for monitoring progress on the Sustainable Development Goals (SDGs), creates an even greater demand for health information.

Both SDG and GPW 13 indicators require subnational disaggregation of data for assessing progress made on the equity dimensions of care and population needs. Improvement in health information not only relies on the generation and collection of valid data, it also requires the appropriate management and analysis of the data. The provision of the data presented here in the format of the regional core indicators framework aims to enhance evidence-informed decision-making, in line with our other activities to strengthen the capacities of ministries of health in this area.

The strengthening of health information systems is a priority for WHO in the Region, as I have highlighted in my Vision. Intensive work with Member States since 2012 has resulted in a clear framework for health information systems. The core indicators focus on three main components: 1) monitoring health determinants and risks; 2) assessing health status, including morbidity and cause-specific mortality; and 3) assessing health system response. The regional core indicators were endorsed by the WHO Regional Committee for the Eastern Mediterranean at its 61st Session in 2014, after which Member States started to adopt and report on the indicators. In 2016, the core indicator list was expanded in consultation with Member States to add a set of additional SDG indicators, bringing the total number of core indicators to 75. We expect a slight increase in the number of indicators to be collected from 2019, following the recent approval of GPW 13. We will consult with Member States on how to proceed for the additional GPW 13 indicators.

WHO will continue its efforts to support countries of the Region in strengthening national health information systems. This includes comprehensive health information system assessments, developing national health information system strategies, and improving national capacity in death certification and analysis, International Classification of Disease (ICD) coding and (where appropriate) use of DHIS2 platforms to enhance the reporting of routine data. Additionally, we are working closely with Member States to develop national household survey plans, streamline processes and ensure that key information is available to countries in a timely manner.

This publication uses available data drawn from multiple sources, including figures provided by Member States, the latest World Health Statistics publications, the Global Health Observatory, and estimates developed by United Nations agencies including WHO. Every effort has been made to incorporate the most comprehensive, recent and reliable data, and to validate these data with countries within a very short time-frame. I would welcome your input and observations on the data presented here.

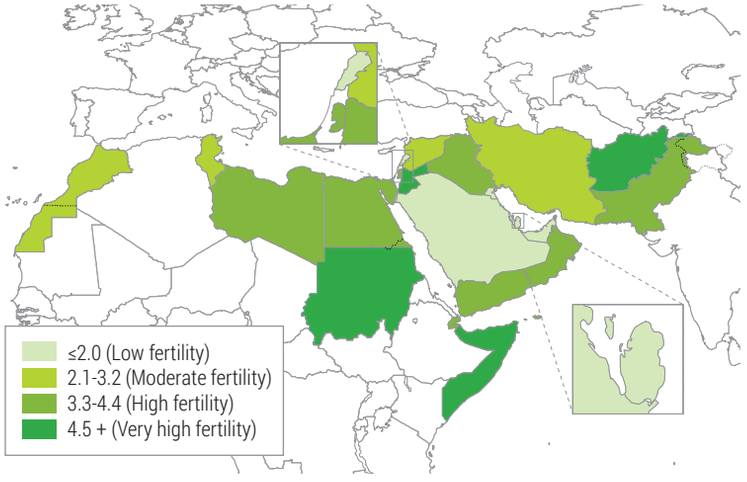
Dr Ahmed Al-Mandhari
WHO Regional Director
for the Eastern Mediterranean

Demographic and socioeconomic determinants

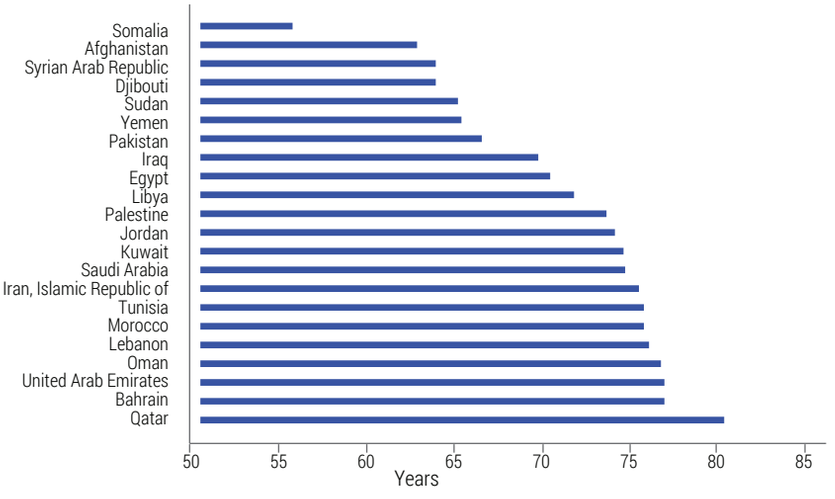
Country	Population 2017		Population growth		Life expectancy at birth (years), 2016[g]			Literacy rate (15–24 years)				Net primary school enrolment ratio per 100 school-age children				Population below the international poverty line		Total fertility		Adolescent fertility (15–19 years), 2016[g]
																		Rate (*R*)		
																		Per woman		Per 1000 girls
	Total	Urban						T	M	F		T	M	F						
	(000s)	%	%	Y	T	M	F	%	%	%	Y	Ratio	Ratio	Ratio	Y	%	Y	*R*	Y	*R*
Afghanistan	29 200[b]	24[a]	2.0	2013	62.7	61.0	64.5	31	45	17	2012	57	64	48	2012	..	..	5.3	2015	87.0
Bahrain	1 501	100	5.4	2017	77.2[f]	76.5	78.1	..	....	..	....	..	..	..	..	..	..	1.9	2017	14.3
Djibouti	8	..	1.5	2012	63.8	62.2	65.5	..	..	..	..	59	63	55	2014	..	..	3.4	2013	20.6
Egypt	92 115	42	2.4	2015	70.5	70.5	73.3	93	..	..	2015	53	52	48	2015	26.4	2014	3.5	2014	56.0
Iran, Islamic Republic of	79 926[a]	74	1.2	2016	75.7	74.6	76.9	97	97	96	2016	99	99	98	2016	0.1	2014	2.1	2016	23.0
Iraq	37 140	70	2.2	2017	69.8	67.5	72.2	..	78	..	2013	92[d]	94	83	2014	17.0	2014	4.0	2017	56.2[f]
Jordan	10 053	90	2.6	2017	74.3	72.7	76.0	96	97	91	2015	97	98	99	2016	..	..	3.4	2017	26.0
Kuwait	4 184[b]	100	12.6	2015	74.8	73.9	76.0	95	96[d]	94[d]	2014	100	100	100	2014	..	..	1.8	2015	6.1
Lebanon	4 421	..	1.5	2017	76.3	75.1	77.7	..	..	..	..	93	97	90	2013	..	..	1.8	2017	0.1[f]
Libya	6 545	85	2.0	2016	71.9	69	75.0	88	92	83	2014	100	..	..	2016	..	..	3.4	2014	10.9
Morocco	34 852	62	1.1	2017	76.0	74.8	77.0	89	93	86	2016	82	82	81	2017	2.2	2014	2.4	2017	32.0
Oman	4 560	..	3.2	2017	76.9[f]	74.8[f]	79.2[f]	98	97	98	2016	98	99	98	2016	0.0	2014	4.0	2017	12.8[f]
Pakistan	213 707	36	2.4	2017	66.5	65.7	67.4	57	68	45	2015	57	60	53	2015	39.0	2016	3.6	2017	46.0[f]
Palestine	4 706	85	2.8	2016	73.8[f]	72.3	75.4	99	99	99	2017	94	92	97	2015	29.2	2017	4.4	2017	48.0
Qatar	2 725	100	4.1	2017	80.7[f]	79.9	82.4	99	99	99	2016	94	94	94	2016	0.1	2017	1.9	2016	10.3
Saudi Arabia	32 552	83	2.5	2017	74.9[f]	73.6	76.3	99	99	99	2017	98	97	98	2017	..	..	2.0	2017	11.7[f]
Somalia	12 316[c]	42	2.9	2014	55.4	53.7	57.3	..	..	..	..	17	18	17	2014	..	..	6.4	2015	64.0
Sudan	40 783	31	2.8	2016	65.1	63.4	66.9	60	56	60	2014	76	77	76	2014	36.1	2015	5.2	2014	87.0
Syrian Arab Republic	24 422	..	..	..	63.8	59.4	68.9	..	..	..	..	..	..	..	..	..	..	3.0	2013	54.0
Tunisia	11 446	68	1.4	2016	76.0	74.1	78.1	..	..	..	..	96	90	99	2014	15.2	2015	2.3	2016	3.0
United Arab Emirates	9 121	84	1.0	2016	77.2	76.5	78.7	..	..	..	..	95	92[e]	90[e]	2016	..	..	1.5	2016	34.2
Yemen	27 426	29	3.1	2017	65.3	63.9	66.8	..	..	..	..	88	39	48	2016	20.1	2013	4.4	2013	67.0

[a] 2016 [b] 2015 [c] 2014 [d] 2013 [e] 2012 [f] Country reported, 2017 [g] Data as reported in World Health Statistcs report, (WHS 2018)
Y Reference year for the data provided .. Not available for 2012–2016 or not reported

Total fertility rate (per woman)



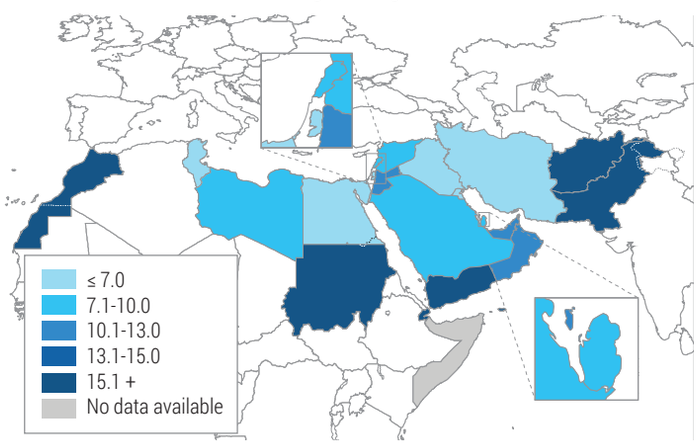
Life expectancy at birth (years), 2016



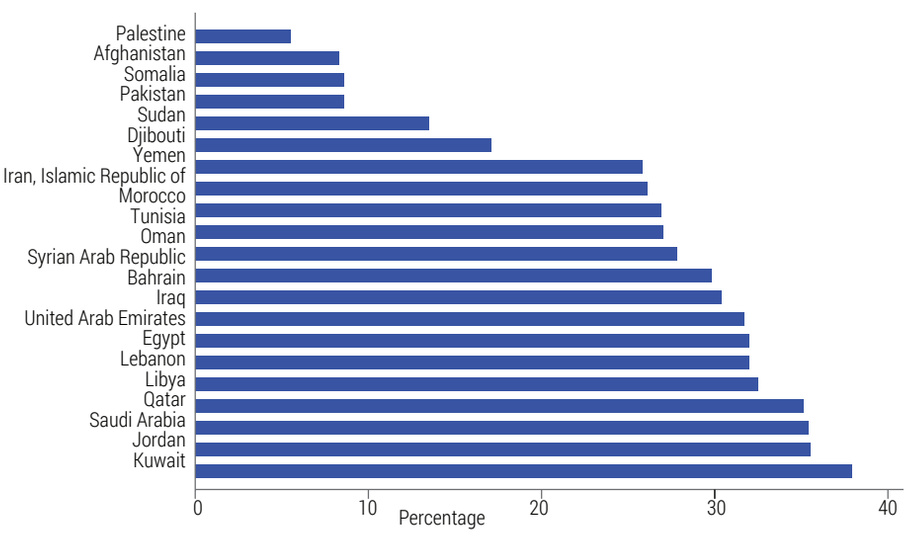
Health determinants and risks

Country	Biological					Nutritional											
	Low birth weight among newborns	Exclusive breastfeeding 0–5 months of age		Adults (18+ years) (age-standardized)		Children under 5 who are					Youth (13–18 years)			Adults (18+ years), 2016 (age-standardized)		Anaemia among women of reproductive age (15–49 years)	
				Raised blood glucose, 2014	Raised blood pressure, 2015	stunted	wasted	overweight	obese		Overweight	Obesity		Overweight	Obesity		
	%	%	Y	%	%	%	%	%	%	Y	%	%	Y	%	%	%	Y
Afghanistan	25	58.4	2013	11.9	30.6	40.9	9.5	5.4	2.0	2013	...	...	...	23.0	5.5	40.4	2013
Bahrain	12.0	33.8[c]	2016	11.5	21.4	2.4	2.1	2.0	1.0	2012	...	...	...	65.8	29.8	28.2	2012
Djibouti	29.8	49.3[d]	2014	8.1	26.8	33.5	17.8	8.1	...	2013	...	...	...	38.6	13.5	...	...
Egypt	7.0	39.7[c]	2017	17.9	25	22.3	9.5	15.7	8.5	2014	27.4	8.5	2014	63.5	32.0	25.2	2014
Iran, Islamic Republic of	4.1	53.1[b]	2017	12.1	19.7	6.8	3.0	11.8	1.9	2013	20.6	11.3	2016	61.6	25.8	...	...
Iraq	6.3	38	2016	17.4	25.2	22.6[e]	7.4	11.8[e]	..	2014	25.3	7.9	2012	64.6	30.4	...	...
Jordan	13.0	23.0[e]	2014	16.8	21	7.7	2.4	4.4	...	2013	...	...	...	69.6	35.5	...	...
Kuwait	7.0	11.9	2014	19.6	23.6	4.9	3.1	6.0	2.1[c]	2015	...	...	...	73.4	37.9	22.2	2014
Lebanon	9.5	14.8[c]	2017	13.4	20.7	7.3	6.6	16.7	6.3	2015	...	...	...	67.9	32.0	...	...
Libya	7.1	67.0[b]	2014	15.9	23.7	21.0	6.5	22.0	10.5	2015	...	...	...	66.8	32.5	...	...
Morocco	15.4[c]	35.0	2017	13.7	26.1	15.1	2.9	10.8	2.8	2017	...	...	...	60.4	26.1	...	...
Oman	11.9	23.2	2017	13.5	24.8	11.4	9.3	3.1	1.1	2017	29.0	12.5	2015	62.6	27.0	27.8	2017
Pakistan	32.0	47.0	2017	12.4	30.5	37.6	7.1	2.5	2.8[e]	2017	...	...	...	28.4	8.6	...	...
Palestine	6.4	38.6[c]	2017	...		7.4	1.2	8.2	...	2014	...	...	...			27.0	2013
Qatar	10.0	29.3[d]	2016	18.9	22.4	2.3	2.8	8.3	2.3	2016	45	22.4	2016	71.7	35.1	...	...
Saudi Arabia	8.70	43.9	2017	17.4	23.3	11.1	4.1	9.1[a]	0.2	2017	...	...	...	69.7	35.4	46.1	2017
Somalia	...	...	...	6.8	32.9	42.1	13.2	...	...	2015	...	...	...	28.4	8.3	...	...
Sudan	32.3	55.4	2017	10.0	30.2	38.2	16.3	3.0	...	2014	11.4	3.6	2012	28.9	8.6	53.6	2016
Syrian Arab Republic	9.4	...	2014	14.6	24.5	22.3	7.2	...	...	2014	...	...	...	61.4	27.8	...	...
Tunisia	6.9	8.5	2014	12.5	23.2	3.7[e]	2.8	14.3[d]	2.3[d]	2015	...	...	...	61.6	26.9	35.8	2016
United Arab Emirates	10.9[a]	49.0	2017	15.1	21.1	....	...	...	...	...	38.4	16.6	2016	67.8	31.7	30.3	2016
Yemen	16.3[d]	11.5	2014	11.3	30.7	47.0	16.3	2.0	0.4	2014	...	...	...	48.8	17.1	...	...

Low birth weight among newborns



Obesity among adults (18+ years), 2016 (age-standardized)



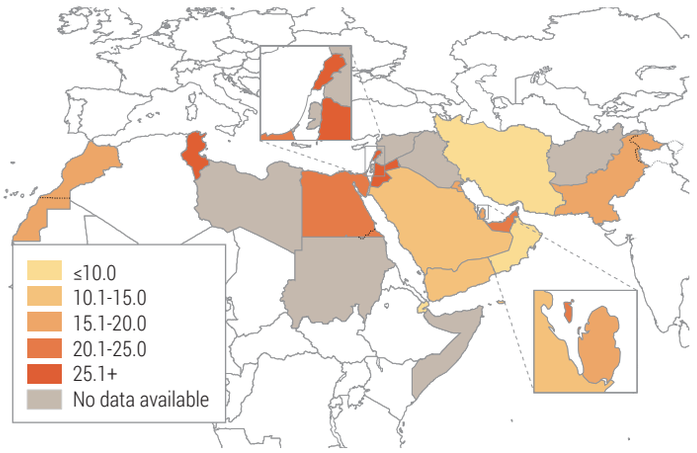
Health determinants and risks

Country	Behavioural									Environmental, 2015	
	Insufficient physical activity (13–18 years), 2016	Insufficient physical activity (18+ years), 2016	Tobacco use (13–15 years)[h]				Tobacco use (15+ years)[h], 2015 (age-standardized)			Access to improved drinking water	Access to improved sanitation facilities
			T	M	F		T	M	F		
	%	%	%	%	%	Y	%	%	%	%	%
Afghanistan	88.1	...	...	...	...	...	...	...	...	55	32
Bahrain	81.0	...	17.7	25	10.1	2015	21.9	31.5	4.2	100[i]	99
Djibouti	85.2	...	15.2	17.8	11.1	2013	9.9	18.6	1.1	90	47
Egypt	87.5	31.0	13.6	18.1	8.2	2014	22.2	44.2	0.2	99	95
Iran, Islamic Republic of	56.4	33.2	5.9	7.5	4.2	2012	10.0	19.3	0.7	97[f]	99[f]
Iraq	85.0	52.0	14.1	19.4	8.6	2016	...	...	...	87	86
Jordan	84.8	...	24	33.9	13.8	2014	38.4[c]	65.5[c]	10.2[c]	97[i]	99
Kuwait	84.3	67.0	11.6	19.4	4.6	2016	18.5	31.0	1.6	99	100
Lebanon	82.1	36.4	11.3	18.8	5.1	2013	25.1	32.6	17.6	99	81
Libya	83.2	36.4	...	...	...	...	...	...	...	...	97
Morocco	87.3	26.2	6	7.3	4.4	2016	18.6	37.7	0.5	87[f]	77
Oman	83.8	32.9	...	...	...	...	9.1	12.8	0.3	93	97
Pakistan	86.9	41.5	10.7	13.3	6.6	2013	16.2	29.5	2.3	91	73
Palestine	...	75.3	17.3	23.6	11	2014	...	...	...	62[f]	100[f]
Qatar	88.0	36.8	15.7	22.8	8.8	2013	16.4	21.4	0.6	100[f]	100[f]
Saudi Arabia	...	53.1	...	...	...	...	13.0	21.5	0.9	100[a]	99[a]
Somalia	...	...	...	...	...	...	...	...	...	31[e]	23[e]
Sudan	90.3	...	11.7	14.5	7.3	2014	...	...	...	55[d]	24[d]
Syrian Arab Republic	87.5	...	...	...	...	...	...	...	...	90	96
Tunisia	81.5	30.4	...	...	...	...	28.3	56.9	0.9	98	92
United Arab Emirates	81.9	38.0	12.2	16	8.2	2013	22.9	29.6	0.7	100	98
Yemen	86.4	...	18.7	23.9	9.9	2014	14.3	23.6	5.0	55[d]	53[d]

h WHO Report on the Global Tobacco Epidemic,2017

i Country reported 2016

Age standardized tobacco use (15+ years)

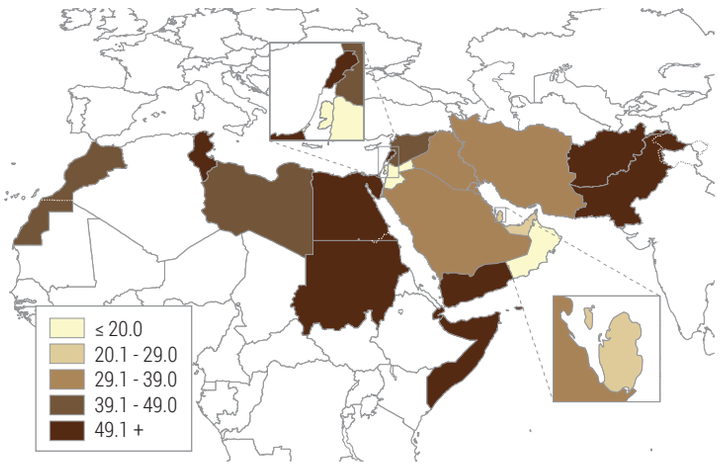


Health status (mortality)

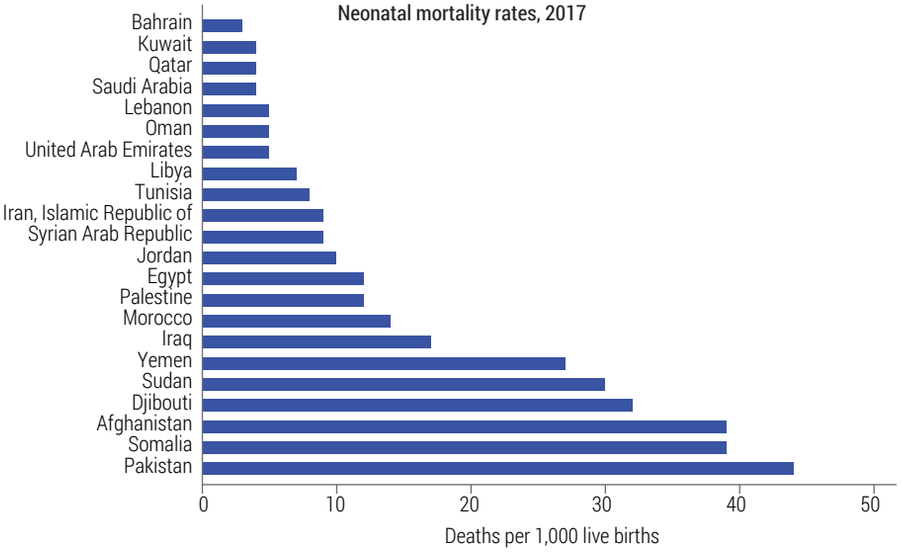
Country	Neonatal	Infant	Under-5	Maternal mortality ratio	Age-standardized mortality rates by major cause			Mortality between age 30 and exact age 70 from cardiovascular disease, cancer, diabetes, chronic respiratory disease, 2016	Mortality rate from road traffic injuries		Mortality rate attributed to household and ambient air pollution, 2016	Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene, 2016
	Mortality rate per 1000 live births, UN-IGME 2017 estimates			Per 100 000 live births, UN-MMEIG 2015 estimate	Per 100 000 population				Reported, 2016	WHO estimate, 2016		
					Communicable diseases, 2012	Noncommunicable diseases, 2016	Injuries, 2012	Rate per 10 000 population	Per 100 000 population		Rate per 10 000 population	Rate per 100 000 population
	R	*R*	*R*	*R*				*R*	*R*	*R*	*R*	*R*
Afghanistan	39	52	68	396	363	852	169	29.8	5.3	15.1	95	13.9
Bahrain	3	6	7	15	48	440	34	11.3	3.4	6.9	15	<0.1
Djibouti	32	52	62	229	626	610	106	19.6	...	23.5	99	31.3
Egypt	12	19	22	33	62[f]	827	35[f]	27.7	5.9	9.7	73	2
Iran, Islamic Republic of	9	13	15	25	56	561	75	14.8	19.9[fj]	20.5	35	1
Iraq	17	25	30	50	87	646	128	21.3	12.7	20.7	35	3
Jordan	10	15	17	58	53	614	53	19.2	7.7	24.4	26	0.6
Kuwait	4	7	8	4	82	579	25	17.4	22.6[c]	17.6	37	<0.1
Lebanon	5	7	8	15	30	575	41	17.9	9.9[b]	23.8	52	0.8
Libya	7	11	12	9	53	660	63	20.1	37.1	26.1	43	0.6
Morocco	14	20	23	121	...	525	47	12.4	11.0	19.6	40	1.9
Oman	5	10	11	17	84	469	53	17.8	14.1[f]	16.1	22	<0.1
Pakistan	44	61	75	178	296	713	99	24.7	2.4	14.3	113	19.6
Palestine	12	18	21	45	2[f]	521[f]	26[f]	21.0[b]	5.4	5.3	26[k]	1.81[k]
Qatar	4	7	8	13	28	465	41	15.3	6.5[f]	9.5	13	<0.1
Saudi Arabia	4	6	7	12	71	562	41	16.4	28.5	28.8	39	<0.1
Somalia	39	80	127	732	927	645	188	21.8	...	27.1	152	86.6
Sudan	30	44	63	311	496	745	134	26	6.0	25.7	105	17
Syrian Arab Republic	9	14	17	68	41	654	308	21.8	3.5	26.5	44	3.7
Tunisia	8	11	13	62	65	538	39	16.1	12.8	22.8	57	1
United Arab Emirates	5	8	9	6	36	499	32	16.8	6.1	18.1	16	<0.1
Yemen	27	43	55	385	515	881	84	30.6	...	26.9	90	10.2

UN-IGME: United Nations Inter-agency Group for Child Mortality Estimation UN-MMEIG: United Nations Maternal Mortality Estimation Inter-Agency Group
j Calendar year 1 March 2017–28 February 2018 k Data from Institute for Health Metrics and Evaluation (IHME)

Mortality rate attributed to household and ambient air pollution (per 10 000 population)



Neonatal mortality rates, 2017

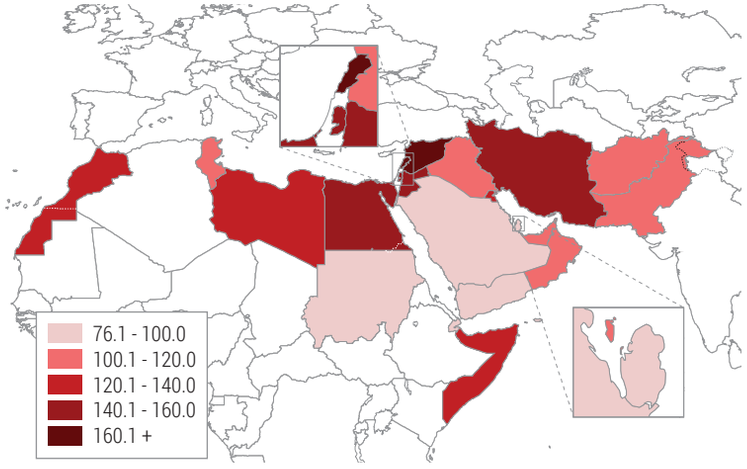


Health status (morbidity, 2017)

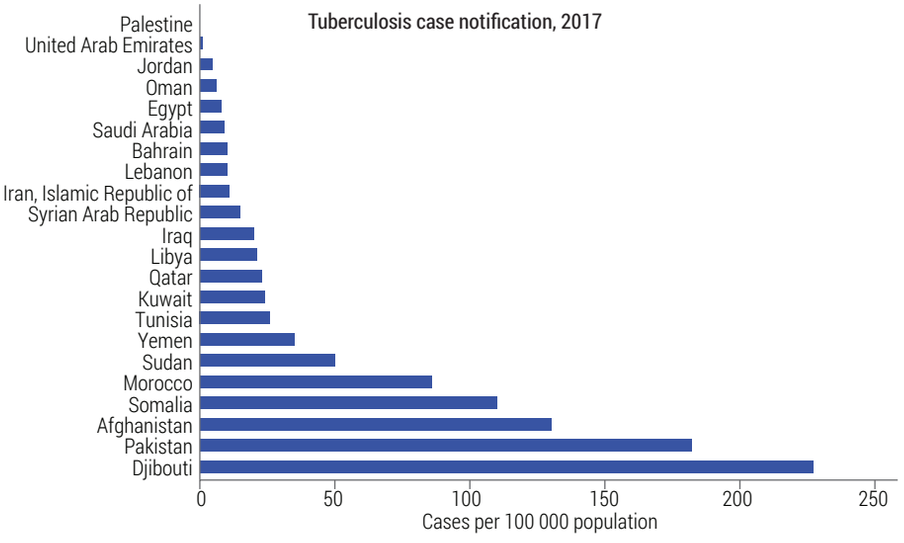
Country	Cancer (all types), 2018	Tuberculosis	HIV		Hepatitis B, 2016	Malaria		Measles
	Incidence	Case notification, 2017	Estimated number of new infections	Number of newly reported cases	Hepatitis B incidence rate[n]	Incidence of confirmed cases	Total number of reported cases	Incidence
	Rate per 100 000				per 100 000	per 1000 population		per 1 000 000 population
	R	*R*	*N*	*N*		*R*	*N*	*R*
Afghanistan	100.2	130	...	259	500	8.3	320 045	46.81
Bahrain	105.2	10	<100	57	200	...	133[o]	0
Djibouti	87.9	227	560	...	600	30.66	14 671	3.47
Egypt	156.9	8	2300	2093	800	...	305[o]	0.25
Iran, Islamic Republic of	141.6	11	4700	2049	20	...	939[m]	0.65
Iraq	105.5	20	...	96	100	...	9[o]	0.63
Jordan	157.8	5	...	27	1000	...	44[o]	0
Kuwait	121.8	24	<100	44	100	...	419[o]	3.85
Lebanon	242.8	10	<200	205	200	...	152[o]	21.94
Libya	120.3	21	...	...	300	...	397	1.38
Morocco	139.6	86	990	1308	500	...	496[o]	0.12
Oman	103.3	6	...	150	400	...	1078[m]	2.04
Pakistan	114	182	20 000	3158	2800	1.81	2 190 418	36.67
Palestine	158.6	0	...	4	...	...	1[o]	15.11
Qatar	97.3	23	<100	...	200	...	444[o]	5.19
Saudi Arabia	88.7	9	...	...	300	...	3151[m]	15.93
Somalia	120.8	110	<500	1118	10 500	2.38	37 156	1670
Sudan	95.9	50	4700	3875	2900	17.8	1 368 589[p]	16.16
Syrian Arab Republic	169.9	15	...	37	400	...	25[o]	32.49
Tunisia	115.4	26	<500	168	800	...	120[n]	0.44
United Arab Emirates	112.5	1	...	...	100	...	4013[o]	13.21
Yemen	76.1	35	...	...	2500	6.3	114 004	15.67

[m] Of which locally transmitted cases were 70 (Islamic Republic of Iran), 18 (Oman: intoduced cases), 177 (Saudi Arabia)
[n] Cumulated incidence of chronic HBV infection in children 5 years of age
[o] Imported cases; no local transmission
[p] Of which 720 879 were confirmed

Cancer incidence rate (All types per 100 000 population)



Tuberculosis case notification, 2017



Health status (neglected tropical diseases, 2016)

Country	Number of people requiring interventions against neglected tropical diseases					Population at risk of neglected tropical diseases (subject to treatment campaigns)				
	Dracunculiasis[q]	Leishmaniasis	Leprosy	Rabies	Mycetoma	Lymphatic filariasis	Onchocerciasis	Schistosomiasis	Soil-transmitted helminthiases	Trachoma
	N					*N*				
Afghanistan	0	35190	48	...	...	...	...	...	13 275 429	...
Bahrain	0	...	3	...	...	...	...	...	...	...
Djibouti	0	9	...	...	...	...	...	...	110 561	...
Egypt	0	694	651	...	...	...	...	173 463	...	1 673 826
Iran, Islamic Republic of	0	...	...	...	...	...	...	...	...	0
Iraq	0	...	...	...	...	...	...	...	2 170 486	...
Jordan	0	281	...	...	...	...	...	...	...	...
Kuwait	0	...	6	...	...	...	...	...	...	...
Lebanon	0	58	3	...	...	...	...	...	...	...
Libya	0	...	1	...	...	...	...	...	...	...
Morocco	0	...	25	...	...	...	...	...	...	0
Oman	0	2[f]	3[f]	...	...	0	...	0	...	0
Pakistan	0	27151	397	...	...	...	...	...	31 683 212	3 127 886
Palestine	0	...	...	...	...	...	...	...	...	...
Qatar	0	...	36	...	...	...	...	...	...	...
Saudi Arabia[f]	0	1012	9	1	...	0	0	103	5232	...
Somalia	0	781	635	...	...	...	...	578 279	4 904 201	...
Sudan	0	6821	624	...	...	13 393 890	501 181	8 948 450	17 181 009	4 979 841
Syrian Arab Republic	0	52 528[f]	...	7[f]	...	...	...	...	...	...
Tunisia	0	6082	...	...	...	...	...	...	...	...
United Arab Emirates	0	...	40	...	...	...	...	...	...	...
Yemen	0	...	367	...	...	...	322 819	3 152 073	5 636 174	1 038 108

q All countries are certified free of dracunculiasis except Sudan

Monitoring framework for neglected tropical diseases in the Eastern Mediterranean Region

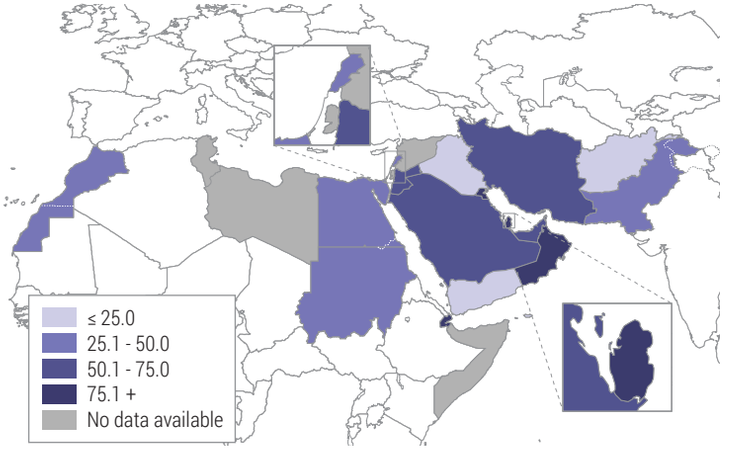
Output	Indicators	Baseline	2019	2021
Dracunculiasis: Sudan supported to achieve certification of interruption of transmission and disease-free status	Certification process completed	0	1	...
Onchocerciasis: Sudan and Yemen supported to achieve elimination (interruption of transmission) by 2021	Number of countries achieving (interruption of transmission)	0	0	2
Schistosomiasis: Somalia and Sudan supported to control morbidity by 2021; Egypt and Yemen supported to achieve elimination as a public health problem by 2021	Number of countries achieving the set goals	0	2	8
Lymphatic filariasis: Yemen supported to achieve elimination as a public health problem by 2019; and Sudan by 2021	Number of countries achieving elimination as a public health problem	0	1	2
Trachoma: 12 countries supported to achieve elimination of trachoma as a public health problem	Number of countries achieving elimination as a public health problem	2	6	12
Soil-transmitted helminthiasis: all endemic countries supported to achieve deworming coverage of at least 75% of eligible school-age children	Number of countries achieving at least 75% coverage of eligible school-age children	2	4	8
Cutaneous leishmaniasis: all endemic countries supported to achieve detection and reporting of 75% of estimated incident cases, and treatment of 90% of all detected cases	Number of countries achieving the set goals	5	8	18
Visceral leishmaniasis: all endemic countries supported to achieve detection, reporting and treatment of 90% of the estimated incident cases and zero deaths,	Number of countries achieving the set goals	0	5	18
Leprosy: all endemic countries supported to achieve zero G2D (visible deformities) among newly-detected cases and zero	Number of countries reporting zero G2D (visible deformities) among newly detected cases	11	14	22
	Number of countries reporting zero children among newly-detected cases	14	16	22
Mycetoma: all endemic countries supported to achieve the following goals: capacities on diagnosis and treatment of mycetoma; community sensitization implemented, and referral system; mycetoma included in the national surveillance system	Number of countries achieving the set goals	0	1	4

Health financing

Country	Per capita		Out-of-pocket		General government expenditure on health as percentage of general government expenditure[r]	Domestic general government health expenditure (GGHE-D) as percentage of general government expenditure (GGE)		Population with catastrophic health expenditure	Population impoverished due to out-of-pocket health expenditure	
	Total expenditure on health[r]	Current health expenditure (CHE)	Expenditure as percentage of total health expenditure[r]	Out-of-pocket expenditure (OOPS) as percentage of current health expenditure (CHE)						
	US$ exchange rate		%	%	%	%	Y	%	%	Y
Afghanistan	57[c]	57	63.9[c]	77.4	12.0[c]	2.0	2016	...	...	...
Bahrain	1169	1099	23.3[c]	28.0	11.1	8.4	2016	...	...	...
Djibouti	191[c]	70	35.8[c]	25.8	14.1[c]	3.1	2016	...	...	...
Egypt	178[c]	131	55.7[c]	62.0	5.6[c]	4.2	2016	4.4	1.1	2013
Iran, Islamic Republic of	295[b]	415	35[b]	38.8	17.5[c]	22.6	2016	2.4	0.6	2016
Iraq	292[c]	153	39.7[c]	78.5	6.5[c]	1.7	2016	...	...	...
Jordan	359[c]	224	20.9[c]	28.0	13.7[c]	12.0	2016	...	...	...
Kuwait	1386[c]	1068	12.7[c]	16.1	5.8[c]	6.2	2016	...	...	...
Lebanon	569[c]	662	36.4[c]	32.1	10.7[c]	14.3	2016	...	...	...
Libya	372	...	26.5	...	4.9	...	2014	...	...	...
Morocco	190[c]	171	58.4[c]	48.6	6.0[c]	9.1	2016	...	...	...
Oman	636[b]	648	6.4[b]	5.9	6.7[b]	7.6	2016	...	...	...
Pakistan[s]	45	40	57.6	65.2	9.7	3.9	2016	0.6	0.9	2014
Palestine	312	282[b]	45.5	46.0[b]	10.8	16.0[b]	2017	0.6	...	2013
Qatar	2562	1827	4.4	8.6	10.4	6.3	2016	0.0	0.0	2017
Saudi Arabia	1147[c]	1147	14.3[c]	14.3	8.2[c]	10.1	2016	...	...	...
Somalia	...	...	...	...	...	...	...	...	...	...
Sudan	132[b]	152	79.8[b]	73.9	7.2[b]	10.7	2016	7.8	2.2	2012
Syrian Arab Republic	67	...	53.7	...	4.8	...	2014	...	...	...
Tunisia	305[c]	257	37.7[c]	39.9	14.2[c]	13.7	2016	...	...	...
United Arab Emirates	1611[c]	1323	17.8[c]	18.6	8.7[c]	7.9	2016	...	...	...
Yemen	80	...	76.4	...	3.9	...	2014	...	...	...

r Source: WHO global health expenditure online database (http://apps.who.int/nha/database)
s Country data

Compulsory financing arrangements as percentage of current health expenditure

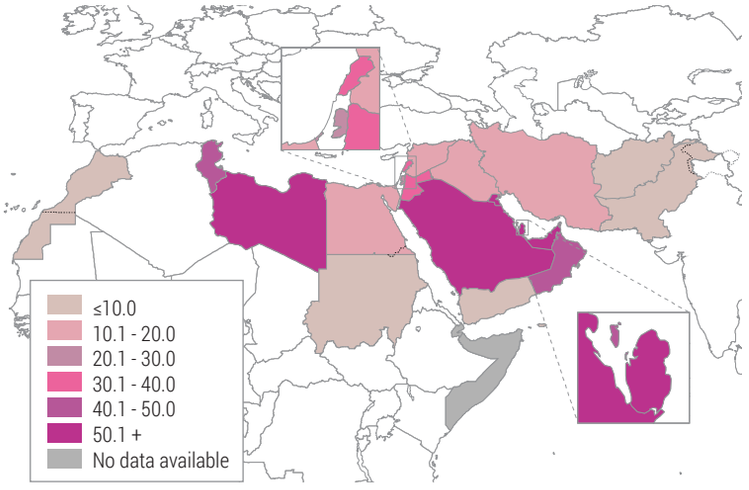


Health workforce

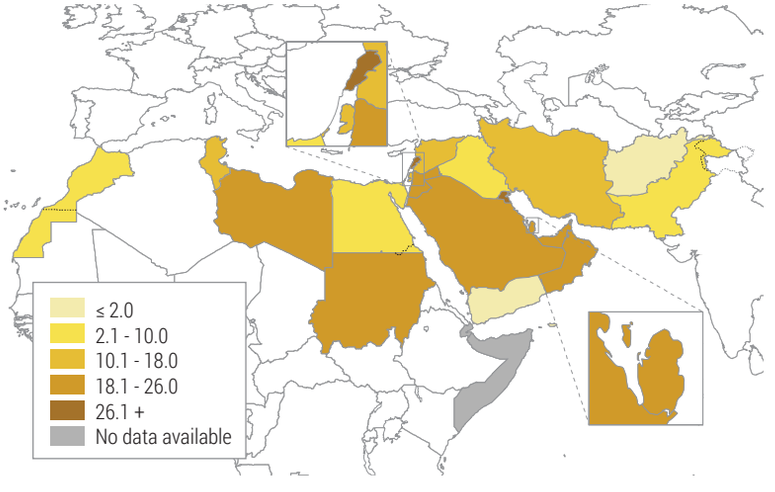
Country	Personnel per 10 000 population					Registered recent graduates of health profession educational institutions per 100 000 population				
	Physicians	Nursing and midwifery	Dentists	Pharmacists		Physicians	Nursing and midwifery	Dentists	Pharmacists	
	R	*R*	*R*		Y	*R*	*R*	*R*	*R*	Y
Afghanistan	1.9	3.2[c]	0.04	0.1	2017	...	...	...	...	...
Bahrain	23.1	46.5	3.9	5.7[b]	2016	...	...	...	...	...
Djibouti	...	...	...	...	...	...	...	...	...	...
Egypt	8.5	14.5	1.9	4.1	2016	12.0	11.5	1.8	13.6	2016
Iran, Islamic Republic of	11.4	18.7	3.3	2.0	2016	5.3	7.3	1.8	1.3	2017
Iraq	9.4	17.3	2.8	3.3	2017	9.4	20.3	2.8	3.3	2017
Jordan	22.6	32.7	7.1	15.6	2017	10.2	6.2	2.6	6.4	2016
Kuwait	29.0	65.0	6.0	9.0	2014	2.2	3.0	1.4	0.6	2014
Lebanon	31.3	36.4	15.2	18.9	2017	...	...	...	...	...
Libya	20.0	67.0	8.0	6.0	2017	...	...	...	...	...
Morocco	6.7	8.5	1.0	2.6	2017	...	...	...	...	...
Oman	20.0	43.7	3.0	5.4	2017	0.8	2.0	0.2	0.6	2016
Pakistan	9.8	5.1	1.0	1.6	2017	7.5	4.6	1.8	1.5	2017
Palestine	17.7	25.7	7.1	10.9	2017			...	...	...
Qatar	21.1	58.8	5.4	7.6	2017	0.3	0.5	...	0.04	2017
Saudi Arabia	25.3	57.0	4.8	8.7	2017	6.9	6.5	4.2	4.3	2017
Somalia	...	...	...	...	...	...	...	...	...	...
Sudan	1.9	7.9	0.1	0.3	2017	1.0	...	...	...	2014
Syrian Arab Republic	11.6	14.4	6.6	11.4	2017	3.4	2.6	3.8	5.3	2017
Tunisia	13.0	40.9[t]	3.1	2.3	2015	...	...	...	...	...
United Arab Emirates	24.3	56.8	5.7	7.5	2016	8.4	3.6	2.6	4.4	2014
Yemen	1.8	7.3[c]	0.4	1.1	2017	...	...	...	...	...

t Paramedical personnel including technicians, nurses and nursing assistants

Density of nursing and midwifery per 10 000 population



Density of physicians per 10 000 population

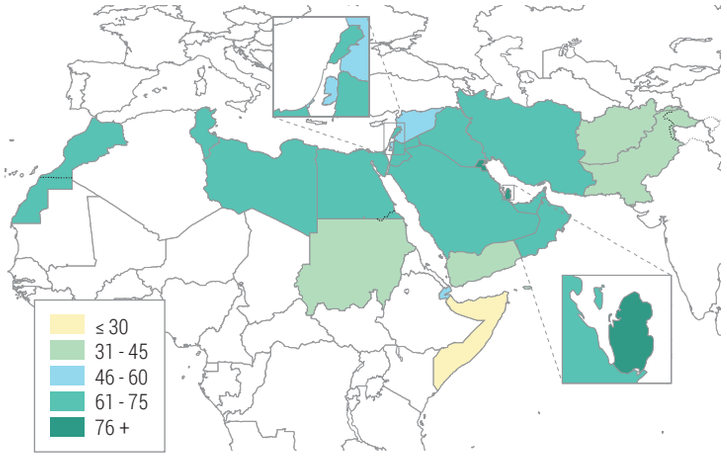


Country capacity

Country	International Health Regulations (IHR) technical areas, 2016				IHR annual reporting 2017	JEE score 2016-2018	UHC service coverage index, 2017[u]
	Detect	Prevent	Respond	Points of entry and other IHR related hazards			
	R	*R*	*R*	*R*			
Afghanistan	34.7	50.8	42.9	20.0	42	40	34
Bahrain	72.0	86.2	88.6	60.0	93	79	72
Djibouti	33.0	43.0	26.0	23.0	33	33	47
Egypt	...	...	...	...	96	...	68
Iran, Islamic Republic of	...	...	...	...	76	...	65
Iraq	...	...	...	...	89	...	63
Jordan	53.3	63.1	57.1	46.7	72	56	70
Kuwait	72.0	73.8	75.7	76.7	85	74	77
Lebanon	54.7	58.5	48.6	56.7	80	54	68
Libya	44.0	54.0	34.0	37.0	64	43	63
Morocco	53.3	56.9	77.1	60.0	95	53	65
Oman	81.3	75.4	90.0	80.0	90	82	72
Pakistan	42.7	52.3	45.7	60.0	51	48	40
Palestine	...	...	...	...	37	...	60
Qatar	64.0	72.3	70.0	60.0	76	68	77
Saudi Arabia	70.7	70.8	81.4	80.0	99	75	68
Somalia	24.0	38.5	37.1	20.0	29	31	22
Sudan	53.3	50.8	65.7	43.3	67	55	43
Syrian Arab Republic	...	...	...	...	64	...	60
Tunisia	54.7	66.2	57.1	50.0	57	58	65
United Arab Emirates	85.3	84.6	98.6	90.0	97	90	63
Yemen	...	...	...	...	48	...	39

u Universal health coverage index

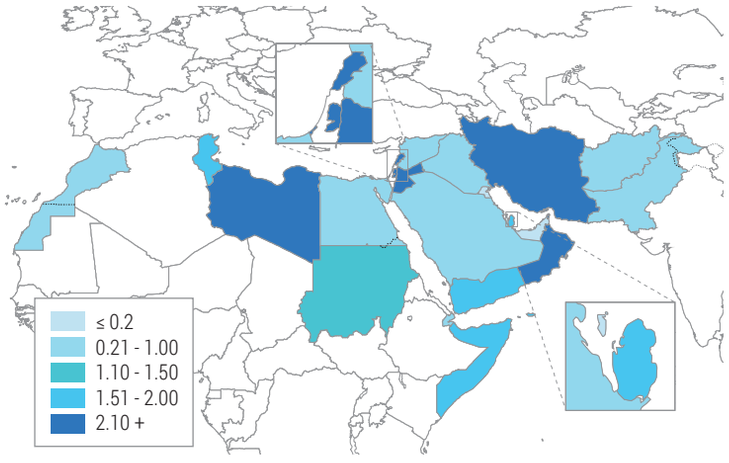
Coverage of essential health services



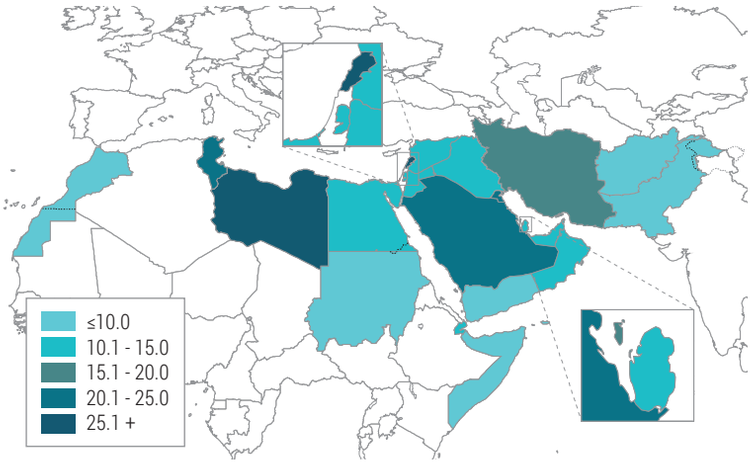
Service delivery

Country	Medicines and medical devices, 2013						Primary health care facilities	Hospital beds		Surgical wound infection		Annual outpatient visits per capita	
	Availability of selected essential medicines in public and private health facilities		Density per million population of selected medical devices in public and private health facilities										
	Public	Private	Computed Tomography	Radiotherapy	Magnetic Resonance Imaging	Mammographs	Per 10 000 population						
	%						*R*	*R*	Y	%	Y	Ratio	Y
Afghanistan	...	...	0.2	...	0.1	0.0	0.8	3.9	2017	...	...	2.1	2017
Bahrain	100.0[a]	...	2.3[c]	...	2.3[c]	29.5[c]	0.2	17.4	2016	...	...	5.0	2016
Djibouti	...	...	...	...	...	...	0.6	14.0	2013	...	...	2.6	2013
Egypt	...	...	...	0.8	...	...	0.6	14.3	2015	...	...	0.5	2014
Iran, Islamic Republic of	96.7	96.7	9.5	0.9	3.8	19.0	2.8	15.6	2016	...	...	4.1	2015
Iraq	...	...	2.2	0.2	1.6	35.4	0.7	13.2	2017	...	...	1.7	2017
Jordan	27.8[e]	80.0[e]	5.5	0.8	2.1	129.1	6.9[a]	14.7	2017	10.8	2017	0.0	2016
Kuwait	100.0	100.0	...	1.2	...	...	0.2	20.4	2014	...	...	0.7	2012
Lebanon	75.4	87.2	25.1	1.9	8.3	370.2	2.5	27.3	2016	...	...	6.2	2013
Libya	...	...	9.7	1.0	5.2	...	2.1	32.0	2017	...	...	...	...
Morocco	...	52.2	2.0[f]	0.4	0.3[f]	1.9[f]	0.8	10.0	2017	...	...	0.7	2016
Oman	...	...	7.2[f]	6.0[f]	1.6[f]	125.3[f]	5.1	14.7	2017	...	...	6.0	2017
Pakistan	65.0[c]	...	0.3	0.1	0.2	1.6	0.5	6.3	2018	...	...	1.1	2017
Palestine	80.3[f]	...	...	...	...	...	15.8	13.2	2017	...	...	1.2	2017
Qatar	98.0[f]	...	9.2[f]	2.9[f]	11.4[f]	225.1[f]	3.2	12.5	2017	0.5	2017	4.3	2013
Saudi Arabia	...	...	3.8	0.1	1.0	40.6	0.7	22.4	2017	2.0	2017	4.4	2017
Somalia	...	...	...	...	...	...	1.9	8.7	2013	...	...	...	...
Sudan	53.7[f]	69.3[f]	1.1	0.2	0.3	12.9	1.5	7.4	2016	...	...	3.0	2017
Syrian Arab Republic	93.0	98.2	...	0.3	...	...	0.8	14.0	2017	...	...	10.0	2017
Tunisia	70.0	80.0[e]	8.9	1.6	2.0	22.6	1.9	21.8	2013	6.6	2012	...	...
United Arab Emirates	...	...	...	0.6	...	...	0.2	13.8	2016	...	...	1.9	2016
Yemen	...	...	3.6	0.1	1.1	17.6	1.6	7.1[d]	2017	...	...	...	...

Density of primary health care facilities per 10 000 population



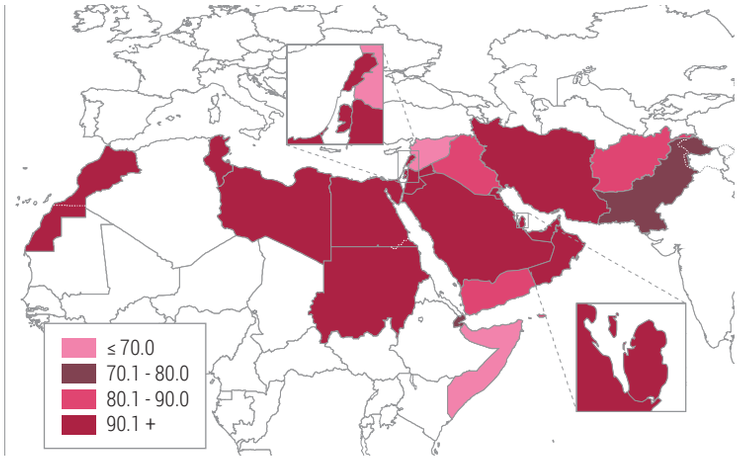
Density of hospital beds per 10 000 population



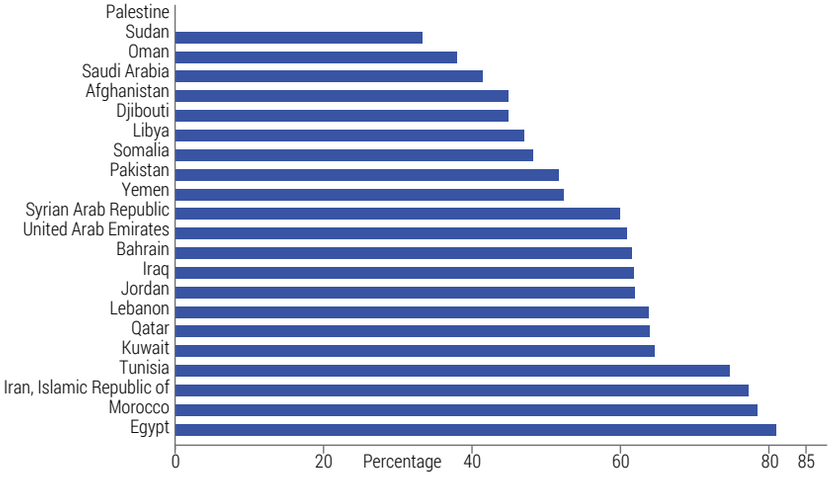
Coverage of selected interventions

Country	Demand for family planning satisfied with modern methods (UN Population Division estimate, 2017)	Antenatal care coverage (1+ visits)	Antenatal care coverage (4+ visits)	Skilled birth attendance		Children under 5 with diarrhoea treated with oral rehydration therapy, 2017	DTP3-containing vaccine/ pentavalent coverage among children under 1 year, 2017	Measles immunization coverage, 2017	Coverage of service for severe mental health disorders		Treatment coverage for opioid dependence, 2015
	%	%	%	%	Y	%	%	%	%	Y	
Afghanistan	44.9	59.0	18.0	51.0	2015	58.5[b]	82	78	...	...	Very limited (1-10%)
Bahrain	61.6	100.0	56.5[c]	100.0	2016	...	97	100	3.6	2015	More than 40%
Djibouti	44.9	...	...	...	...	...	79	79	...	...	...
Egypt	81.0	90.3	87.8	91.5	2015	30.0[c]	94	94	20.0	2015	Limited (11-20%)
Iran, Islamic Republic of	77.3	98.4	96.3	99.3	2015	85.0[b]	99	99	56.0	2015	More than 40%
Iraq	61.8	77.7	49.6	91.5	2015	34.0[c]	85	85	37.0	2013	...
Jordan	61.9	99.1	94.5	99.6	2013	40.0[c]	100	93	...	...	...
Kuwait	64.6	100.0	59.8	100.0	2013	...	99	99	100.0	2015	...
Lebanon	63.8	...	...	...	...	100.0[c]	93	91	...	...	...
Libya	47.0	99.0	66.3	99.0	2014	60.7[c]	97	95	...	...	...
Morocco	78.5	88.5	53.5	86.6	2017	10.8	100	100	...	...	Limited (11-20%)
Oman	38.0	99.6	77.1	98.7	2017	...	100	100	100.0	2017	...
Pakistan	51.7	86.0	51.4	69.3	2017	37.0	75	76	...	...	Very limited (1-10%)
Palestine		100.0	95.5[c]	100.0	2017	31.5[c]	100	100	100.0	2017	...
Qatar	63.9	100.0	85.0[e]	100.0	2016	69.0[e]	97	100	100.0	2017	...
Saudi Arabia	41.5	98.0[d]	98.5	99.7	2017	100.0	98	97	100.0	2017	Substantial (21-40%)
Somalia	48.3	24.2	3.3	38.4	2014		63	60	...	...	...
Sudan	33.3	79.0	...	78.0	2014	59.3[c]	95	90	...	...	...
Syrian Arab Republic	60.0	...	...	...	...	...	67	84	30.0	2017	...
Tunisia	74.7	99.3	86.4	98.6[d]	2016	76.0[c]	98	98	...	...	...
United Arab Emirates	60.9	100.0	100	100.0	2013	...	97	99	...	...	Substantial (21-40%)
Yemen	52.4	59.8	25.1	44.7	2015	28.0[c]	83	73	...	...	...

DTP3-containing vaccine/pentavalent coverage among children under 1 year



Demand for family planning satified with modern methods, 2017

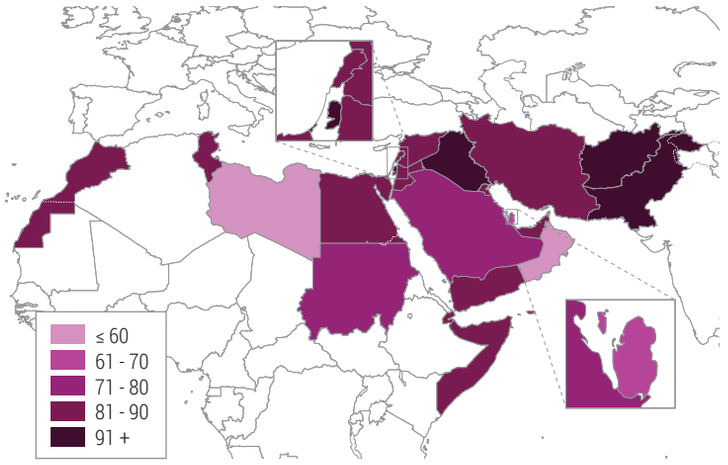


Coverage of selected interventions

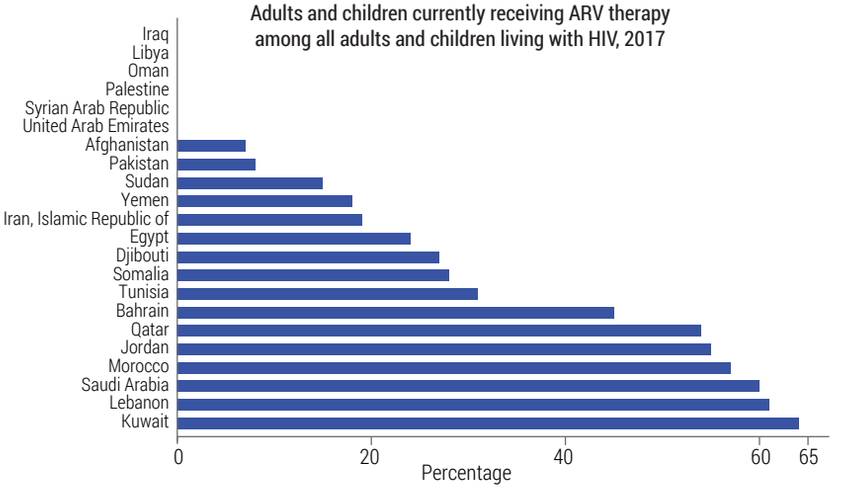
Country	Tuberculosis treatment success rate of new and relapse TB cases notified, 2016	Suspected malaria cases that have had a diagnostic test	Percentage of population sleeping under insecticide-treated nets		Adults and children currently receiving ARV therapy among all adults and children living with HIV estimates, 2017[x]	Key populations at higher risk who have received an HIV test in the past 12 months and know their results			
						PWID	SW	MSM	
	%	%	%	Y	%	%			Y
Afghanistan	93	83	18.2[c,w]	2017	7[a]	22.5	5.9[c]	17.4[c]	2014
Bahrain	68	100	...	2017	45	...	...	...	...
Djibouti	86	100	...	2016	27	...	99.4	...	2014
Egypt	87	100	...	2017	24	95.4	30.2[b]	96.7	2017
Iran, Islamic Republic of	86	100	56.5[b]	2017	19	27.6[c]	70.6	...	2017
Iraq	93[v]	100	...	2017	...	...	...	...	...
Jordan	89	100	...	2017	55[a]	...	...	...	...
Kuwait	87	100	...	2017	64	...	...	...	...
Lebanon	85	97	...	2017	61		64.2[d]	75.0	2014
Libya	59	...	...	...	...	...	...	45.6	2012
Morocco	87	100	...	2017	57	36.1	40.1	58.1	2017
Oman	51	100	...	2017	82[f]	0.5	...	...	2014
Pakistan	94	78	34.8[c]	2017	8	39.3	30.6	22.3	2016
Palestine	91[b]	100	...	2016	...	...	...	...	...
Qatar	69	100	...	2017	54	...	...	...	...
Saudi Arabia	75	100	...	2017	69	100.0	...	...	2015
Somalia	88	99	19.8[d]	2015	28	...	20.0	...	2014
Sudan	78	81	34.7[a,w]	2016	15	...	29.3	16.9	2015
Syrian Arab Republic	90[v]	100	...	2015	...	27.1	...	...	2011
Tunisia	88[v]	100	...	2017	31	28.6	7.7	20.0[c]	2017
United Arab Emirates	88	100	...	2017	...	...	...	...	...
Yemen	89	95	7.1[d,w]	2017	18[a]	...	...	27.9	2012

PWID: People who inject drugs SW: Sex workers MSM: Men who have sex with men [v] 2017 data [w] In targeted areas [x] WHO/UNAIDS Modelled HIV estimates

Tuberculosis treatment success rate of new and relapse cases notified in 2016



Adults and children currently receiving ARV therapy among all adults and children living with HIV, 2017



Health determinants and risks

Demographic and socioeconomic determinants

- Population size
- Population growth rate
- Total fertility rate
- Adolescent fertility rate (15-19 years)
- Net primary school enrolment
- Population below the international poverty line
- Literacy rate among persons 15-24 years
- Access to improved drinking water
- Access to improved sanitation facilities

Risk factors

- Low birth weight among newborns
- Exclusive breastfeeding rate 0–5 months of age
- Children under 5 who are stunted
- Children under 5 who are wasted
- Children under 5 who are overweight
- Children under 5 who are obese
- Overweight (13-18 years)
- Obesity (13-18 years)
- Overweight (18+ years)
- Obesity (18+ years)
- Tobacco use among persons 13-15 years
- Tobacco use among persons 15+ years
- Insufficient physical activity (13-18 years)
- Insufficient physical activity (18+ years)
- Raised blood glucose among persons 18+ years
- Raised blood pressure among persons 18+ years
- Anaemia among women of reproductive age

Health status

Life expectancy and mortality

- Life expectancy at birth
- Neonatal mortality rate
- Infant mortality rate
- Under-five mortality rate
- Maternal mortality ratio
- Mortality rate by main cause of death (age-standardized)
- Mortality between ages 30 and 70 from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases
- Mortality rate from road traffic injuries
- Mortality rate attributed to household and ambient air pollution
- Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene

Morbidity

- Cancer incidence by type of cancer
- Tuberculosis notification rate
- Estimated number of new HIV infections cases
- Incidence of hepatitis B
- Incidence of confirmed malaria cases
- Incidence of measles cases
- Number of people requiring interventions against neglected tropical diseases
- Population at risk of neglected tropical diseases (subject to treatment campaigns)

Health system response

Health financing

- Per capita total health expenditure
- Out-of-pocket expenditure as % of total health expenditure
- General government expenditure on health as % of general government expenditure
- Population with catastrophic health expenditure
- Population impoverished due to out-of-pocket health expenditure

Health workforce

- Density of health workers: a-physicians, b-nurses, c-midwives, d-pharmacists, e-dentists
- Density of recent graduates of registered health profession educational institutions

Country capacity

- International Health Regulations (IHR) technical areas

Health information system

- Birth registration coverage
- Death registration coverage

Medicines and medical devices

- Availability of selected essential medicines in health facilities
- Density per million population of selected medical devices in public and private health facilities

Service delivery

- Density of primary health care facilities
- Hospital bed density
- Surgical wound infection rate
- Annual number of outpatient department visits, per capita

Service coverage

- Demand for family planning satisfied with modern methods
- Antenatal care coverage (1+;4+)
- Births attended by skilled health personnel
- Children under 5 with diarrhoea receiving oral rehydration therapy
- DTP3/pentavalent immunization coverage rate among children under 1 year of age
- Measles immunization coverage rate (MCV1)
- Coverage of service for severe mental health disorders
- Treatment coverage for opioid dependence
- Tuberculosis treatment success rate
- Percentage of suspected malaria cases that have had a diagnostic test
- Percentage of population sleeping under insecticide-treated nets
- Antiretroviral therapy (ART) coverage among all adults and children living with HIV
- Percentage of key populations at higher risk (who inject drugs, sex workers, men who have sex with men) who have received an HIV test in the past 12 months and know their results
- UHC service coverage index

Annex: Metadata for new SDG indicators

Mortality from household and ambient air pollution

Abbreviated name	**Mortality from household and ambient air pollution [SDG 3.9.1]**
Indicator name	Mortality attributable to joint effects of household and ambient air pollution
Domain	Health status
Subdomain	Environment
Associated terms	Mortality by cause
Definition	The mortality attributable to the joint effects of household and ambient air pollution can be expressed as number of deaths or death rates. Death rates are calculated by dividing the number of deaths by the total population (or indicated if a different population group is used, e.g. children under 5 years).
Numerator	Number of deaths.
Denominator	Population.
Disaggregation/ additional dimension	Age (<5)
Method of measurement	
Method of estimation	Burden of disease (or in the present case attributable mortality) is calculated by first combining information on the increased (or relative) risk of a disease resulting from exposure, with information on how widespread the exposure is in the population (e.g. the annual mean concentration of particulate matter to which the population is exposed). This allows calculation of the population attributable fraction (PAF), which is the fraction of disease seen in a given population that can be attributed to the exposure (e.g. in this case the annual mean concentration of particulate matter). Applying this fraction to the total burden of disease (e.g. cardiopulmonary disease expressed as deaths or DALYs), gives the total number of deaths or DALYs that results from exposure to that particular risk factor (in the example given above, to ambient air pollution). To estimate the combined effects of risk factors, a joint population attributable fraction is calculated, as described in Ezzati et al (2003). Method of estimation of global and regional aggregates: for deaths, national figures are summed; for death rates, the country deaths are summed according to the region of interest and divided by the corresponding regional population.
Measurement frequency	
Monitoring and evaluation framework	Impact
Preferred data sources	Civil registration and vital statistics system with high coverage and medical certification of cause of death, special studies, surveys
Other possible data sources	
Further information and related links	Burden of disease from joint Household and Ambient Air Pollution for 2012. Geneva: World Health Organization; 2016 (http://www.who.int/phe/health_topics/outdoorair/databases/AP_jointeffect_methods_Nov2016.pdf, accessed 8 May 2017). 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017 Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations;

Mortality from unsafe water, unsafe sanitation and lack of hygiene

Abbreviated name	**Mortality from unsafe water, unsafe sanitation and lack of hygiene [SDG 3.9.2]**
Indicator name	Mortality rate attributed to unsafe water, unsafe sanitation, and lack of hygiene (exposure to unsafe water, sanitation and hygiene for all (WASH) services)
Domain	Health status
Subdomain	Environment
Associated terms	Mortality by cause
Definition	Number of deaths from unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe WASH services) in a year, divided by the population, and multiplied by 100 000.
Numerator	Number of deaths from unsafe water, unsafe sanitation and lack of hygiene in a year x 100 000.
Denominator	Population.
Disaggregation/ additional dimension	Age, geographic location, socioeconomic status, sex
Method of measurement	The included diseases are the WASH attributable fractions of diarrhoea (ICD–10 code A00, A01, A03, A04, A06–A09), intestinal nematode infections (ICD–10 code B76–B77, B79) and protein-energy malnutrition (ICD–10 code E40–E46).
Method of estimation	Burden of disease (or in the present case attributable mortality) is calculated by first combining information on the increased (or relative) risk of a disease resulting from exposure, with information on how widespread the exposure is in the population (in this case, the percentage of the population with exposure to unsafe water, sanitation and lack of hygiene). This allows calculation of the 'population attributable fraction' (PAF), which is the fraction of disease seen in a given population that can be attributed to the exposure, in this case lack of access to improved water, sanitation and hygiene. Applying this fraction to the total burden of disease (e.g. diarrhoeal diseases expressed as deaths or DALYs), gives the total number of deaths or DALYs that results from inadequate water, sanitation and hygiene. Method of estimation of global and regional aggregates: for deaths and DALYs, national figures are summed. For death and DALY rates, the country deaths, respectively DALYs, are summed according to the region of interest and divided by the corresponding regional population.
Measurement frequency	Impact
Monitoring and evaluation framework	
Preferred data sources	Civil registration and vital statistics system with high coverage and cause of death based on ICD with estimates of use of safely managed drinking water services [SDG 6.1], safely managed sanitation [SDG 6.2a] and hand-washing with soap and water [SDG 6.2b].
Other possible data sources	
Further information and related links	Pruss-Ustün A, Bartram J, Clasen T, Colford JM, Cumming O, Curtis V et al. Burden of disease from inadequate water, sanitation and hygiene in low- and middle-income settings: a retrospective analysis of data from 145 countries. Trop Med Int Health. 2014;19(8):894–905 (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4255749/, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). WHO methods and data sources for country-level causes of death 2000–2012. Geneva: World Health Organization; 2014 (http://www.who.int/healthinfo/global_burden_disease/GlobalCOD_method_2000_2012.pdf, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

Hepatitis B incidence

Abbreviated name	**Hepatitis B incidence [SDG 3.3.4]**
Indicator name	Estimated number of new hepatitis B infections per 100 000 population in a given year
Domain	Health status
Subdomain	Infectious disease
Associated terms	Morbidity
Definition	The number of new hepatitis B infections per 100 000 population in a given year is estimated from the prevalence of total antibodies against hepatitis B core antigen (Total anti-HBc) and hepatitis B surface antigen (HBsAg) positive among children 5 years of age, adjusted for sampling design.
Numerator	Number of survey participants with Total anti-HBc and HBsAg positive test.
Denominator	Number in survey with Total anti-Hc/HBsAg result.
Disaggregation/ additional dimension	Dependent on sampling methodology. Exposure to the birth dose hepatitis B vaccine (official records), exposure to three doses of hepatitis B vaccine, place of residence
Method of measurement	Total anti-HBc reflect cumulated incidence in the first five years of life while HBsAg reflect chronic infections that may evolve towards chronic liver diseases The sample of the serological survey must be drawn from the specific geographic region to be verified. For example if the purpose is to estimate national transmission of HBV (including mother-to-child transmission) then the sampling should be geographically representative of the population. Convenience sampling is not appropriate. The sample size should be adequate to show with 95% confidence HBsAg prevalence of less than 1% with a precision of ± 0.5%. The target age is 5-years-old. Sampling 4– 6 year olds may be appropriate. The serosurvey is cross sectional and therefore a point estimate time. The shorter time periods of data collection are therefore preferred. Data on HBV birth dose exposure and B3 completion are drawn from official records. Where these are not available testing for HBsAb may be considered for the serosurvey. This is less preferable as it is more costly, but can also be done in addition. Specimen collection and transportation should be appropriate to minimize bias though specimen degradation in rural and remote areas. Where possible, it is advantageous to collect blood specimens for ELISA laboratory testing because the accuracy (sensitivity and specificity) is higher than for rapid tests. However in some locations only rapid tests will be available hence test selection is resource dependent. This should be considered in designing overall study methodology. When an appropriate sampling strategy and size are used and quality testing assays and laboratory procedures are employed, the HBsAg prevalence in the serosurvey should be representative of the incidence of childhood HBV transmission in the specific geographic region (or country) in this age group.
Method of estimation	Intermittent, dependent on population seroprevalence of HBsAg before hepatitis B immunization and infant hepatitis B vaccination coverage
Measurement frequency	Impact
Monitoring and evaluation framework	Serosurvey
Preferred data sources	
Other possible data sources	Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017).
Further information and related links	World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017).

Number of people requiring interventions against neglected tropical diseases

Abbreviated name	**Number of people requiring interventions against neglected tropical diseases [SDG 3.3.5]**
Indicator name	Number of people requiring interventions against neglected tropical diseases
Domain	Service coverage
Subdomain	Infectious disease
Associated terms	Neglected tropical disease
Definition	Number of people requiring treatment and care for any one of the neglected tropical diseases (NTDs) targeted by the WHO NTD Roadmap and World Health Assembly resolutions and reported to WHO. Treatment and care is broadly defined to allow for preventive, curative, surgical or rehabilitative treatment and care. Other interventions (e.g. vector management, veterinary public health, water, sanitation and hygiene, disease surveillance, morbidity management and disability prevention) are to be addressed in the context of targets and indicators for Universal Health Coverage (UHC) and universal access to water and sanitation.
Numerator	Average annual number of people requiring preventive chemotherapy (PC) for at least one PC-NTD; and Number of new cases requiring individual treatment and care for other NTDs.
Denominator	
Disaggregation/ additional dimension	Age; forms of disease; location (urban/rural)
Method of measurement	
Method of estimation	Some estimation is required to aggregate data across interventions and diseases. There is an established methodology that has been tested and an agreed international standard. 1. Average annual number of people requiring PC for at least one PC-NTD: People may require PC for more than one PC-NTD. The number of people requiring PC is compared across the PC-NTDs, by age group and implementation unit (e.g. district). The largest number of people requiring PC is retained for each age group in each implementation unit. The total is considered to be a conservative estimate of the number of people requiring PC for at least one PC-NTD. Prevalence surveys (e.g. transmission assessment surveys) determine when an NTD has been eliminated or controlled and PC can be stopped or reduced in frequency, such that the average annual number of people requiring PC is reduced. 2. Number of new cases requiring individual treatment and care for other NTDs: The number of new cases is based on country reports, whenever available, of new and known cases of Buruli ulcer, Chagas disease, cysticercosis, dengue, guinea-worm disease, echinococcosis, human African trypanosomiasis (HAT), leprosy, the leishmaniases, rabies and yaws. Where the number of people requiring and requesting surgery for PCNTDs (e.g. trichiasis or hydrocele surgery) is reported, it can be added here. Similarly, new cases requiring and requesting rehabilitation (e.g. leprosy or lymphoedema) can be added whenever available. Case reports may not be comparable over time; some further estimation may be required to adjust for changes in case-finding and reporting. Populations referred to under 1) and 2) may overlap; the sum would overestimate the total number of people requiring treatment. The maximum of 1) or 2) is therefore retained at the lowest common implementation unit and summed to get conservative country, regional and global aggregates. By 2030, improved co-endemicity data and models will validate the trends obtained using this simplified approach.
Measurement frequency	Annual
Monitoring and evaluation framework	Outcome
Preferred data sources	Existing country systems
Other possible data sources	
Further information and related links	Accelerating work to overcome the global impact of neglected tropical diseases: a roadmap for implementation. Geneva: World Health Organization; 2012 (http://www.who.int/neglected_diseases/NTD_RoadMap_2012_Fullversion.pdf, accessed 11 August 2017). Global plan to combat neglected tropical diseases, 2008–2015. Geneva: World Health Organization; 2007 (http://apps.who.int/iris/bitstream/10665/69708/1/WHO_CDS_NTD_2007.3_eng.pdf?ua=1, accessed 20 July 2017). Investing to overcome the global impact of neglected tropical diseases: Third WHO report on neglected tropical diseases. Geneva: World Health Organization; 2015 (http://www.who.int/neglected_diseases/9789241564861/en/, accessed 11 August 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

Coverage of essential health services

Abbreviated name	**Coverage of essential health services [SDG 3.8.1]**
Indicator name	Coverage of essential health services
Domain	Service coverage
Subdomain	General
Associated terms	Essential health services
Definition	Universal health coverage (UHC) includes both access to quality health services and medicines and financial risk protection. The definition in this section focuses on the coverage of essential health services. The indicator on financial risk protection can be found on page 138. The coverage of essential health services, as defined by SDG indicator 3.8.1, is the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population. These tracer indicators are combined into a service coverage index, which provides a summary indicator of service coverage. Current tracer indicators are grouped into the four categories as follows: Reproductive, maternal, new born and child health: Demand satisfied for family planning with modern methods; ANC4 coverage; three doses of DTP; care-seeking for children with symptoms of pneumonia. Infectious disease: TB case detection and treatment; ART coverage; ITN coverage; improved sanitation facilities. Non-communicable diseases: Non-raised blood pressure; fasting plasma glucose; not smoking tobacco ; and cervical cancer screening. Service capacity and access: Hospital beds per capita; health workforce density (physicians, surgeons and psychiatrists per capita); access to essential medicines; health security. The aim of monitoring of UHC by countries is to ensure that progress towards UHC reflects the country's unique epidemiological and demographic profile, health system and level of economic development and the population's demands and expectations. While the country context determines the measures used, the domains to be monitored – coverage with good-quality essential services and with financial protection – are relevant to all countries, regardless of their level of income, their demographic profile or their health needs. Periodic global monitoring permits comparison of progress towards UHC, so that countries can learn from one another. Global monitoring is not, however, a substitute for country monitoring, and countries are encouraged to tailor their measures of UHC by drawing on this framework to best reflect their context. Furthermore, because of the dynamic nature and progressive realization of UHC, the priorities for monitoring will differ among countries.
Numerator	
Denominator	
Disaggregation/ additional dimension	Types of available data sources dictate how each coverage indicator can be disaggregated. Work is underway to propose appropriate methods to adjust the index to reflect inequalities.
Method of measurement	Metadata for the specific indicators included in UHC service coverage index are included in the relevant indicator pages.
Method of estimation	Values for indicators used in the UHC service coverage index are taken from existing, publicly available data sources, such as UN interagency estimates or household survey data compiled by WHO. All indicators are structured so they occur on a scale of 0 to 100%, with 100% the target. For example, non-use of tobacco, rather than use of tobacco, is used, and hospital bed density and health professional density are rescaled onto a scale of 0 to 100%. The index is constructed from geometric means of component indicators, first within each of the four categories, and then across those category-specific means to obtain the final summary index.
Measurement frequency	Every 3–5 years
Monitoring and evaluation framework	Outcome
Preferred data sources	Each indicator has different data sources.
Other possible data sources	
Further information and related links	Monitoring universal health coverage. In: Health statistics and information systems [website]. Geneva: World Health Organization; 2017 (http://www.who.int/healthinfo/universal_health_coverage/en/, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017).

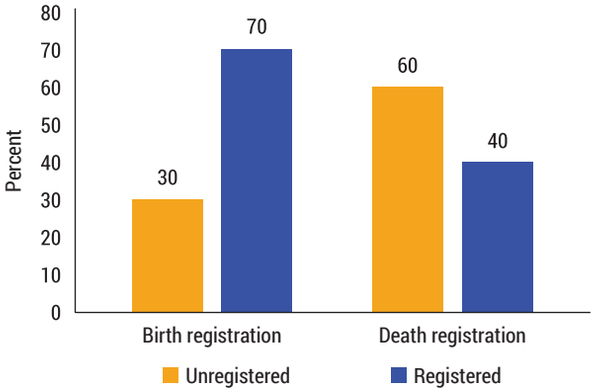
International Health Regulations (IHR) core capacity index

Abbreviated name	International Health Regulations (IHR) core capacity index [SDG 3.d.1]
Indicator name	International Health Regulations (IHR) capacity and health emergency preparedness
Domain	Health systems
Subdomain	Health system strengthening (HSS)
Associated terms	Health security
Definition	Percentage of attributes of 13 core capacities that have been attained at a specific point in time. The 13 core capacities are: (1) National legislation, policy and financing; (2) Coordination and National Focal Point communications; (3) Surveillance; (4) Response; (5) Preparedness; (6) Risk communication; (7) Human resources; (8) Laboratory; (9) Points of entry; (10) Zoonotic events; (11) Food safety; (12) Chemical events; (13) Radionuclear emergencies.
Numerator	Number of attributes attained.
Denominator	Total number of attributes.
Disaggregation/ additional dimension	
Method of measurement	Based on a set of attributes of 13 core capacities from a standard WHO instrument.
Method of estimation	
Measurement frequency	Biannual
Monitoring and evaluation framework	Output
Preferred data sources	Key informant survey
Other possible data sources	
Further information and related links	IHR core capacity monitoring framework: checklist and indicators for monitoring progress in the development of IHR core capacities in States Parties. Geneva: World Health Organization; 2013 (http://apps.who.int/iris/bitstream/10665/84933/1/WHO_HSE_GCR_2013.2_eng.pdf, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017).

Health information and research in the Eastern Mediterranean Region at a glance

In **2017** in the Region, on average **79%**, **80%** and **71%** of the core indicators were reported by high-income, middle-income and low-income countries, respectively.

Estimated timely coverage of birth and death registration, data available for 2016



13 countries have reported cause-specific mortality data in the last 5 years

Only **79%** of births and **45%** of deaths in the Region are registered appropriately and in a timely manner.

7 countries in the Region have not conducted a census in the last 10 years

18 countries use ICD-10 for mortality and morbidity recording

45% of causes of deaths reported by countries are erroneously coded

77% of countries have national bioethics or ethics committees

Only **3** or **4** countries have established national guideline development programmes

10 countries each produce less than **1%** of the Region's research publications

78 academic journals in the Region are indexed in PubMed

5 countries produce **80%** of the Region's research publications

46 WHO collaborating centres located in the Region

57% of ministries of health have research coordination unit or national health research strategies

3 universities alone produce over **10%** of all the Region's health-related research publications

During **2003** to **2014** research production in the Region increased 4-fold (to 4.2 papers per 100 000 population)

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