

# Eastern Mediterranean Region

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

2017



World Health  
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core indicators for monitoring health situation and  
health system performance

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# Foreword

Reliable and timely health information is essential for policy development, proper health management, evidence-based decision-making, rational use of resources and monitoring and evaluation of the public health situation, health care delivery and outcomes. While the demand for health information is increasing in terms of quantity, quality and levels of disaggregation — especially in light of the Sustainable Development Goals (SDGs) — the response to these needs is hampered because of fragmentation and major gaps and weaknesses in national health information systems.

The strengthening of health information systems is a priority for WHO in the Region. Intensive work with Member States since 2012 has resulted in a clear framework for health information systems and 68 core indicators that 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 61th Session in 2014, after which Member States started to adopt and report on the indicators. In 2016, the core indicators list was expanded in consultation with Member States. A set of additional SDG indicators was added to provide countries with a unified approach for reporting of health-related indicators.

As part of WHO's efforts to strengthen national health information systems, WHO is supporting national capacity-building in death certification, ICD coding and use of the DHIS2 platform to enhance the reporting of routine data. WHO also developed a comprehensive approach to assess national health information systems in a way that supports the objectives of Member States in improving such systems. To date, assessments have been conducted in three countries and have resulted in the development and implementation of national strategies for strengthening the health information system.

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 Mahmoud Fikri**

WHO Regional Director  
for the Eastern Mediterranean

# Demographic and socioeconomic determinants

Country	Population 2016		Population growth		Life expectancy at birth (years), 2015			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), 2015
	Total (000s)	Urban %	%	Y	T	M	F	T %	M %	F %	Y	T Ratio	M Ratio	F Ratio	Y	%	Y	Rate (R)		
																		Per woman		Per 1000 girls R
																		R	Y	
Afghanistan	29 200 <sup>d</sup>	24	2.0	2013	60.5	59.3	61.9	32	49	15	2015	57	64	48	2012	35.8	2011	5.3	2015	51.9
Bahrain	1 370	100	4.9	2013	76.9	76.2	77.9	...	...	...	...	...	...	...	...	...	...	2.1	2015	13.8
Djibouti	8 60 <sup>c</sup>	...	1.5	2012	63.5	61.8	65.3	...	...	...	...	59	63	55	2014	...	...	3.4	2013	20.6
Egypt	91 023	43	2.4	2015	73.2	68.8	74.0	93	78 <sup>e</sup>	65 <sup>e</sup>	2015	54	52	49	2015	26.4	2014	3.5	2014	56.0
Iran, Islamic Republic of	79 926	74	1.2	2016	75.5	74.5	76.6	95	97 <sup>e</sup>	96 <sup>e</sup>	2016	99	99	98	2015	0.1	2014	1.9	2015	37.7
Iraq	37 883	70	2.7	2016	68.9	66.2	71.8	...	78	...	2013	92 <sup>c</sup>	94	83	2014	17.0	2014	4.0	2016	82.0
Jordan	9 798	90	2.4	2016	74.1	72.5	75.9	96	97	91	2015	98	98	99	2014	...	...	3.4	2016	26.0
Kuwait	4 184 <sup>a</sup>	100	12.6	2015	74.7	73.7	76.0	95	96 <sup>d</sup>	94 <sup>d</sup>	2014	100	100	100	2014	...	...	1.8	2015	7.1
Lebanon	4 356	85 <sup>e</sup>	1.5	2016	74.9	73.5	76.5	...	...	...	...	93	97	90	2013	...	...	1.5	2013	...
Libya	6 384	88	2.0	2016	72.7	70.1	75.6	88	92	83	2014	...	...	...	...	...	...	3.4	2014	6.0
Morocco	34 125 <sup>a</sup>	61	1.2	2014	74.3	73.3	75.4	88	92	83	2014	99	100	99	2014	...	...	2.2	2015	32.0
Oman	4 414	...	3.1	2015	76.6	75.0	79.2	...	...	...	...	96	97	96	2013	...	...	4.0	2016	13.5
Pakistan	189 900 <sup>d</sup>	38 <sup>a</sup>	2.4	2016	66.4	65.5	67.5	58	68	45	2015	67	60	53	2015	21.0	2015	3.8	2013	44.0
Palestine	4 816	83	2.9	2016	73.5 <sup>f</sup>	72.0 <sup>f</sup>	75.0 <sup>f</sup>	99	99	99	2015	97	97	97	2015	25.8	2014	4.1	2016	48.0 <sup>f</sup>
Qatar	2 618	100	9.5	2015	78.2	77.4	80.0	98	98	99	2015	91	91	91	2015	...	...	2	2015	13.4
Saudi Arabia	31 742	83	2.5	2016	74.5	73.2	76.0	99	99	99	2015	98	97	99	2015	...	...	2.4	2016	17.6
Somalia	12 316 <sup>b</sup>	42	2.9	2014	55.0	53.5	56.6	...	...	...	...	17	18	17	2014	...	...	6.4	2015	64.0
Sudan	39 599	31	30.8	2014	64.1	62.4	65.9	60	...	...	2014	76	65 <sup>e</sup>	59 <sup>e</sup>	2014	46.5	2011	5.2	2014	87.0
Syrian Arab Republic	22 712 <sup>b</sup>	54 <sup>b</sup>	...	...	64.5	59.9	69.9	...	...	...	...	...	...	...	...	...	...	3.0	2013	54.0
Tunisia	11 154 <sup>a</sup>	68	1.3	2012	75.3	73.0	77.8	97	98	96	2011	99	90	99	2014	...	...	2.4	2014	7.0
United Arab Emirates	9 121	84	1.0	2015	77.1	76.4	78.6	...	...	...	...	91	92	90	2012	...	...	1.8	2013	34.2
Yemen	25 235 <sup>c</sup>	29 <sup>c</sup>	3.0	2013	65.7	64.3	67.2	...	...	...	...	88	95	81	2013	...	...	4.4	2013	67.0

<sup>a</sup> 2015    <sup>b</sup> 2014    <sup>c</sup> 2013    <sup>d</sup> 2012    <sup>e</sup> 2011    <sup>f</sup> 2016 data    <sup>Y</sup> Reference year for the data provided    ... Not available for 2011 – 2015 or not reported

# Health determinants and risks

Country	Biological, 2014				Nutritional											
	Low birth weight among newborns	Exclusive breastfeeding 0–5 months of age	Adults (18+ years) (age standardized)		Children under 5 who are				Y	Youth (13–18 years)			Adults (18+ years), 2014 (age standardized)		Anaemia among women of reproductive age (15–49 years)	Y
			Raised blood glucose	Raised blood pressure	stunted	wasted	overweight	obese		Overweight	Obesity	Y	Overweight	Obesity		
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Afghanistan	25.0 <sup>c</sup>	43 <sup>a</sup>	9.6	21.7	40.9	9.5	5.4	2.0	2013	...	...	...	16.2	2.9	40.4	2013
Bahrain	8.3	33.8	17.3	19.2	2.4	2.1	2.0	1.0	2012	...	...	...	71.7	35.1	28.2	2012
Djibouti	29.8 <sup>d</sup>	49.3 <sup>c</sup>	8.7	24.4	29.7	17.8	8.1 <sup>d</sup>	...	2013	...	...	...	31.9	9.6	...	...
Egypt	9.5	39.7	18.9	23.5	22.3	9.5	15.7	8.5	2014	27.4	8.5	2014	62.0	28.9	25.2	2014
Iran, Islamic Republic of	8.6 <sup>d</sup>	53.1 <sup>a</sup>	12.2	20.4	6.8	3.0	11.8	1.9	2013	9.7	...	2016	62.3	26.1	...	...
Iraq	6.3 <sup>f</sup>	38.0 <sup>f</sup>	16.8	21.8	22.6 <sup>d</sup>	7.4	11.8 <sup>d</sup>	6.0 <sup>b</sup>	2014	25.3	7.9	2012	57.9	23.8	20.0	2011
Jordan	13.0	23.0 <sup>d</sup>	14.9	19.3	7.7	2.4	4.4	...	2013	...	...	...	65.9	30.5	30.6	2011
Kuwait	7.0	11.9	20.1	19.9	4.9	3.1	6.0	2.1 <sup>b</sup>	2015	51.4	22.7	2011	75.4	39.7	22.2	2014
Lebanon	11.5	14.8	12.6	22.1	7.3	6.6	16.7	6.3	2015	24.1	6.7	2011	68.7	31.9	...	...
Libya	7.1	67.0 <sup>a</sup>	17.0	21.9	21.0	6.5	22.0	10.5	2015	...	...	...	68.7	33.1	...	...
Morocco	15.4	27.8 <sup>b</sup>	13.5	25.3	14.9 <sup>b</sup>	2.3 <sup>b</sup>	10.7	2.4	2012	...	...	...	56.5	22.3	...	...
Oman	9.7	14.4 <sup>c</sup>	16.4	17.2	9.8	7.5 <sup>b</sup>	4.4 <sup>b</sup>	0.5 <sup>a</sup>	2015	...	...	...	67.4	30.9	26.8	2015
Pakistan	32.0	38.0	10.8	23.0	45.0 <sup>c</sup>	11.0	6.4 <sup>d</sup>	2.8 <sup>d</sup>	2014	...	...	...	23.0	5.4	50.4	2011
Palestine	5.7 <sup>a</sup>	38.6	8.5 <sup>a</sup>	35.8 <sup>b</sup>	7.4	1.2	5.3 <sup>c</sup>	...	2014	...	...	...	...	...	27.0	2013
Qatar	10.3 <sup>b</sup>	29.3 <sup>c</sup>	23.0	18.1	11.6	10.1	12.9 <sup>c</sup>	14.0 <sup>c</sup>	2015	...	...	...	78.1	42.3	...	...
Saudi Arabia	9.0 <sup>f</sup>	68.7 <sup>f</sup>	18.3	21.8	9.3	11.8	1.5 <sup>b</sup>	...	2015	...	...	...	69.6	34.7	40.0	2013
Somalia	8.3 <sup>b</sup>	5.3 <sup>b</sup>	6.8	26.4	42.1	13.2	...	...	2015	...	...	...	20.7	4.6	...	...
Sudan	32.3	41.0	10.0	24.4	38.2	33.0	3.0	...	2014	11.4	3.6	2012	27.8	7.5	...	...
Syrian Arab Republic	9.4	42.6 <sup>b</sup>	13.9	21.3	22.3	7.2	17.9 <sup>b</sup>	7.2 <sup>b</sup>	2014	...	...	...	58.5	23.5	...	...
Tunisia	6.9	8.5	13.3	24.4	10.1 <sup>c</sup>	2.8	14.3 <sup>c</sup>	2.3 <sup>c</sup>	2015	...	...	...	62.9	27.1	...	...
United Arab Emirates	6.1	34.0	18.6	14.7	...	...	...	...	...	...	...	...	74.0	37.2	...	...
Yemen	39.9 <sup>c</sup>	11.5	15.5	23.3	47.0	16.3	2.0	0.4	2014	...	...	...	46.8	17.2	...	...



# Health determinants and risks

Country	Behavioural										Environmental, 2015	
	Insufficient physical activity (13-18 years)		Insufficient physical activity (18+ years) <sup>9</sup> , 2010	Tobacco use (13-15 years)				Tobacco use (15+ years), 2015 (age-standardized)			Access to improved drinking water	Access to improved sanitation facilities
				T	M	F	Y	T	M	F		
%	Y	%	%	%	%	%	Y	%	%	%	%	%
Afghanistan	...	...	...	...	...	...	...	...	...	...	55	32
Bahrain	...	...	...	17.7	25.0	10.1	2015	21.9	31.5	4.2	100	99
Djibouti	...	...	...	15.2	17.8	11.1	2013	9.9	18.6	1.1	90	47
Egypt	83.5	2011	32.3	13.6	18.1	8.2	2014	22.2	44.2	0.2	99	95
Iran, Islamic Republic of	48.7	2016	33.5	5.9	7.5	4.2	2012	10.0	19.3	0.7	96	90
Iraq	80.0	2012	49.3	14.1	19.4	8.6	2016	...	...	...	87	86
Jordan	...	...	15.6	24.0	33.9	13.8	2014	38.4 <sup>b</sup>	65.5 <sup>b</sup>	10.2 <sup>b</sup>	97	99
Kuwait	79.1	2011	56.6	11.6	19.4	4.6	2016	18.5	31.0	1.6	99	100
Lebanon	65.4	2011	38.8	11.3	18.8	5.1	2013	25.1	32.6	17.6	99	81
Libya	...	...	38.0	...	...	...	...	...	...	...	...	97
Morocco	...	...	...	6.0	7.3	4.4	2016	18.6	37.7	0.5	85	77
Oman	...	...	...	...	...	...	...	9.1	12.8	0.3	93	97
Pakistan	...	...	26.0	10.7	13.3	6.6	2013	16.2	29.5	2.3	91	64
Palestine	...	...	46.5 <sup>d</sup>	17.3	23.6	11.0	2014	20.2 <sup>e</sup>	37.6 <sup>e</sup>	2.6 <sup>e</sup>	93	99 <sup>b</sup>
Qatar	85.0	2011	41.6	15.7	22.8	8.8	2013	16.4	21.4	0.6	100	98
Saudi Arabia	...	...	61.0	...	...	...	...	13.0	21.5	0.9	97	100
Somalia	...	...	...	...	...	...	...	...	...	...	31 <sup>d</sup>	23 <sup>d</sup>
Sudan	89.0	2012	...	11.7	14.5	7.3	2014	...	...	...	55 <sup>c</sup>	24 <sup>c</sup>
Syrian Arab Republic	...	...	...	...	...	...	...	...	...	...	90	96
Tunisia	...	...	23.5	...	...	...	...	28.3	56.9	0.9	98	92
United Arab Emirates	73.7	2016	38.4	12.2	16.0	8.2	2013	22.9	29.6	0.7	100	98
Yemen	...	...	...	18.7	23.9	9.9	2014	14.3	23.6	5.0	55 <sup>c</sup>	53 <sup>c</sup>

<sup>9</sup> Age-standardized. Source: Global status report on noncommunicable diseases 2014. Geneva: World Health Organization; 2014.

# Health status (mortality)

Country	Neonatal	Infant	Under-5	Maternal mortality ratio	Age-standardized mortality rates by major cause, 2012			Mortality between age 30 and exact age 70 from cardiovascular disease, cancer, diabetes, chronic respiratory disease, 2015	Mortality rate from road traffic injuries		Mortality rate attributed to household and ambient air pollution, 2012	Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene, 2012
	Mortality per 1000 live births, UN-IGME 2015 estimates			Per 100 000 live births, UN-MMEIG 2015 estimate	Per 100 000 population				Reported 2015	WHO estimate, 2013		
	R	R	R		Ratio	Communicable diseases	Noncommunicable diseases	Injuries	R	R	R	R
Afghanistan	36	66	91	396	363	846	169	31	4.6 <sup>c</sup>	15.5	114.8	34.6
Bahrain	1	5	6	15	48	506	34	16	5.9 <sup>b</sup>	8.0	11.1	0.1
Djibouti	33	54	65	229	626	631	106	19	...	24.7	81.8	26.4
Egypt	13	20	24	33	74	782	33	24	9.2	12.8	50.9	1.6
Iran, Islamic Republic of	10	13	16	25	56	569	75	15	21.7 <sup>h</sup>	32.1	35.2	0.9
Iraq	18	27	32	50	87	715	128	22	17.9 <sup>e</sup>	20.2	33.5	3.9
Jordan	11	15	18	58	53	640	53	20	7.9	26.3	21.2	1.0
Kuwait	3	7	9	4	82	406	25	18	12.8 <sup>d</sup>	18.7	14.2	...
Lebanon	5	7	8	15	30	385	41	18	...	22.6	29.1	0.4
Libya	7	11	13	9	53	550	63	20	60.1 <sup>c</sup>	73.4	33.2	0.6
Morocco	18	24	28	121	...	708	47	17	11.6 <sup>c</sup>	20.8	25.1	3.4
Oman	5	10	12	17	84	478	53	18	16.2	25.4	14.5	0.4
Pakistan	46	56	81	178	296	669	99	25	...	14.2	87.2	20.7
Palestine	12	18	21	45	3 <sup>a</sup>	60 <sup>a</sup>	20 <sup>a</sup>	21	4.9 <sup>j</sup>	5.6	21.9	3.1
Qatar	4	7	8	13	28	407	41	14	9.6	15.2	8.9	...
Saudi Arabia	8	13	15	12	71	549	41	16	25.5 <sup>c</sup>	27.4	27.5	0.2
Somalia	40	85	137	732	927	551	188	20	...	25.4	116.9	98.8
Sudan	30	48	70	311	496	551	134	26	6.5 <sup>c</sup>	24.3	64.5	34.6
Syrian Arab Republic	7	11	13	68	41	573	308	19	...	...	30.0	1.8
Tunisia	8	12	14	62	65	509	39	17	12.8	24.4	42.6	0.8
United Arab Emirates	4	6	7	6	36	547	32	17	6.5 <sup>c</sup>	10.9	7.3	0.3 <sup>a</sup>
Yemen	22	34	42	385	515	627	84	31	...	21.5	61.3	13.0

<sup>h</sup> Calendar year 1 March 2014-28 February 2015

<sup>j</sup> West Bank only

UN-IGME: United Nations Inter-agency Group for Child Mortality Estimation

UN-MMEIG: United Nations Maternal Mortality Estimation Inter-Agency Group

# Health status (morbidity, 2016)

Country	Cancer (all types), 2012	Tuberculosis	HIV		Hepatitis B	Malaria		Measles
	Incidence	Case notification, 2015	Estimated number of new infections	Number of newly reported cases	Hepatitis B incidence rate <sup>m</sup>	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
	<i>R</i>	<i>R</i>	<i>N</i>	<i>N</i>		<i>R</i>	<i>N</i>	<i>R</i>
Afghanistan	115.2	147	<1 000	204	500	7.4	392 551	19.86
Bahrain	112.4	11	<100	...	200	...	106 <sup>n</sup>	0
Djibouti	92.7	294	<500	...	600	...	13 804	...
Egypt	152.0	9	1 600	1 558	800	...	233 <sup>n</sup>	2.52
Iran, Islamic Republic of	127.7	12	5 000	1 864	20	...	706 <sup>k</sup>	1.05
Iraq	135.3	19	...	54	100	...	5 <sup>n</sup>	0.81
Jordan	155.4	4	<100	40	1000	...	51 <sup>n</sup>	0
Kuwait	102.1	20	<100	35	100	...	388 <sup>n</sup>	2.2
Lebanon	197.4	15	<200	108	200	...	134 <sup>n</sup>	7.66
Libya	75.1	18	...	309	300	...	368 <sup>k</sup>	4.82
Morocco	117.8	94	<1 000	1 167	500	...	409 <sup>n</sup>	0.12
Oman	82.1	8	...	135	400	...	807 <sup>k</sup>	34.66
Pakistan	111.8	193	19000	5 156	2800	1.8	2 115 941	16.06
Palestine	145.7	0	...	7	...	...	1 <sup>n</sup>	0
Qatar	108.8	0	<100	16	200	...	493 <sup>n</sup>	17.31
Saudi Arabia	91.1	2	<500	434	300	...	5 382 <sup>k</sup>	3.95
Somalia	139.1	24	1 800	1 084	10500	1.9	...	3.33
Sudan	91.1	36	5 000	4 309	2900	13.7	974 571 <sup>p</sup>	42.94
Syrian Arab Republic	145.9	93	...	22	400	...	12 <sup>n</sup>	2.95
Tunisia	110.6	31	<500	164	800	...	99 <sup>n</sup>	0.66
United Arab Emirates	92.5	1	...	49	100	...	3 849 <sup>n</sup>	23.92
Yemen	80.4	38	1 100	408	2500	4.6	144 628	5.14

<sup>k</sup> Of which locally transmitted cases were 94 (Islamic Republic of Iran), 2 (Libya), 3 (Oman) and 272 (Saudi Arabia) <sup>m</sup> Cumulated incidence of chronic HBV infection in children 5 years of age <sup>n</sup> Imported cases; no local transmission

<sup>p</sup> Of which 566 015 were confirmed

# Health status (neglected tropical diseases, 2015)

Country	Number of people requiring interventions against neglected tropical diseases									
	Dracunculiasis <sup>a</sup>	Leishmaniasis	Leprosy	Rabies	Mycetoma	Lymphatic filariasis	Onchocerciasis	Schistosomiasis	Soil-transmitted helminthiasis	Trachoma
	<i>N</i>									
Afghanistan	0	29 400	42	...	...	0	0	0	13 765 392	...
Bahrain	0	0	6	...	...	0	0	0	0	0
Djibouti	0	10	12	...	...	0	0	0	108 810	...
Egypt	0	2 043	583	...	...	0	0	17 0000	0	1 640 557
Iran, Islamic Republic of	0	18 675	17	...	...	0	0	0	0	0
Iraq	0	19 311	0	...	...	0	0	0	2 107 072	0
Jordan	0	258	0	...	...	0	0	0	0	0
Kuwait	0	0	...	...	...	0	0	0	0	0
Lebanon	0	2	3	...	0	0	0	0	0	0
Libya	0	...	8	...	5	0	0	0	0	...
Morocco	0	2 890	27	...	...	0	0	0	0	0
Oman	0	1	4	...	0	0	0	0	0	0
Pakistan	0	...	446	...	...	0	0	0	31 056 287	3 074 598
Palestine	0	391	0	...	0	0	0	0	0	0
Qatar	0	0	26	...	0	0	0	0	0	0
Saudi Arabia	0	1 493	3	...	52	0	0	0	0	0
Somalia	0	1 031	107	...	...	0	0	561 725	4 763 815	0
Sudan	0	6 316	624	...	...	13 393 890	380 904	8 737 953	17 181 009	5 112 940
Syrian Arab Republic	0	50 992	3	...	...	0	0	0	0	0
Tunisia	0	6 641	1	...	...	0	0	0	0	0
United Arab Emirates	0	0	...	...	...	0	0	0	0	0
Yemen	0	4 068	255	...	...	0	315 000	3 075 740	5 499 683	917 070

<sup>a</sup> All countries are certified free of dracunculiasis except Sudan

# Health financing

Country	Per capita total expenditure on health <sup>r</sup>	Out-of-pocket expenditure as % of total health expenditure <sup>r</sup>	General government expenditure on health as % of general government expenditure		Population with catastrophic health expenditure	Population impoverished due to out-of-pocket health expenditure	
	US\$ exchange rate	%	%	Y	%	%	Y
Afghanistan	57	63.9	12.0	2014	...	...	...
Bahrain	1 243	23.3	10.5	2014	...	...	...
Djibouti	191	35.8	14.1	2014	...	...	...
Egypt	178	55.7	5.6	2014	4.4	1.1	2013
Iran, Islamic Republic of	351	47.8	17.5	2014	2.4	0.8	2015
Iraq	292	39.7	6.5	2014	...	...	...
Jordan	359	20.9	13.7	2014	...	...	...
Kuwait	1 386	12.7	5.8	2014	...	...	...
Lebanon	569	36.4	10.7	2014	...	...	...
Libya	372	26.5	4.9	2014	...	...	...
Morocco	190	58.4	6.0	2014	...	...	...
Oman	675	5.8	6.8	2014	...	...	...
Pakistan	36	56.3	4.7	2014	0.6	0.9	2014
Palestines <sup>s</sup>	305	37.7	11.0	2013	0.6	...	2013
Qatar	2 106	6.9	5.8	2014	...	...	...
Saudi Arabia	1 147	14.3	8.2	2014	...	...	...
Somalia	...	...	...	...	...	...	...
Sudan	130	75.5	11.6	2014	7.8	2.2 <sup>d</sup>	2014
Syrian Arab Republic	67	53.7	4.8	2014	...	...	...
Tunisia	305	37.7	14.2	2014	...	...	...
United Arab Emirates	1 611	17.8	8.7	2014	...	...	...
Yemen	80	76.4	3.9	2014	...	...	...

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

# 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	
	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>	<i>Y</i>	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>	<i>Y</i>
Afghanistan	1.6	3.2 <sup>b</sup>	0.1	0.3	2016	...	...	...	...	...
Bahrain	24.0	48.3	4.0	5.7	2015	...	...	...	...	...
Djibouti	...	...	...	...	...	...	...	...	...	...
Egypt	8.1	15.0	1.8	3.9	2015	11.1	9.5	4.0	7.2	2015
Iran, Islamic Republic of	11.4	18.7	3.3	2.0	2015	3.9	8.4	1.4	1.1	2016
Iraq	8.4	19.4	2.4	2.6	2016	4.9	13.9	3.1	3.5	2014
Jordan	14.1	18.9	7.1	15.5	2016	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	31.0	34.2	15.1	18.2	2016	...	...	...	...	...
Libya	19.5	71.0 <sup>c</sup>	8.0	5.0	2015	...	...	...	...	...
Morocco	6.3 <sup>c</sup>	8.9	1.4 <sup>a</sup>	0.1	2013	...	...	...	...	...
Oman	19.6	44.8	2.8	5.5	2016	5.3	10.8	1.2	3.0	2012
Pakistan	10.0	4.9	0.9	1.4 <sup>d</sup>	2015	...	...	...	...	...
Palestine	21.7	22.9	6.6	10.0	2016	...	...	...	...	...
Qatar	25.0	58.0	7.0	9.0	2014	2.1	1.2	...	2.1	2011
Saudi Arabia	23.9	57.0	4.4	7.9	2016	7.7	6.6	2.7	3.8	2015
Somalia	...	...	...	...	...	...	...	...	...	...
Sudan	4.1	8.3	2.1	4.4	2015	1.0	...	...	...	2014
Syrian Arab Republic	12.2	14.6	6.8	10.1	2016	3.2	...	...	0.4	2016
Tunisia	13.0	40.9 <sup>b</sup>	3.1	2.3	2015	...	...	...	...	...
United Arab Emirates	22.3	50.4	5.4	5.7	2015	8.4	3.6	2.6	4.4	2014
Yemen	3.0	7.3	0.2	1.0	2014	...	...	...	...	...

<sup>†</sup> Paramedical personnel including technicians, nurses and nursing assistants

# Country capacity

Country	International Health Regulations (IHR) technical areas, 2016			
	Detect	Prevent	Respond	Points of entry and other IHR related hazards
	%	%	%	%
Afghanistan	34.7	50.8	42.9	20.0
Bahrain	72.0	86.2	88.6	60.0
Djibouti	...	...	...	...
Egypt	...	...	...	...
Iran, Islamic Republic of	...	...	...	...
Iraq	...	...	...	...
Jordan	53.3	63.1	57.1	46.7
Kuwait	72.0	73.8	75.7	76.7
Lebanon	54.7	58.5	48.6	56.7
Libya	...	...	...	...
Morocco	53.3	56.9	77.1	60.0
Oman	81.3	75.4	90.0	80.0
Pakistan	42.7	52.3	45.7	60.0
Palestine	...	...	...	...
Qatar	64.0	72.3	70.0	60.0
Saudi Arabia	70.7	70.8	81.4	80.0
Somalia	24.0	38.5	37.1	20.0
Sudan	53.3	50.8	65.7	43.3
Syrian Arab Republic	...	...	...	...
Tunisia	54.7	66.2	57.1	50.0
United Arab Emirates	85.3	84.6	98.6	90.0
Yemen	...	...	...	...

# Service delivery

Country	Medicines and medical devices, 2013						Primary health care facilities	Hospital beds	Y	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							Per 10 000 population		%	Y
	Public	Private	Computed Tomography	Radiotherapy	Magnetic Resonance Imaging	Mammographs	R	R					
	%						R	R					
Afghanistan	...	...	0.2	...	0.1	0.0	1.0	4.0	2015	...	...	1.9	2016
Bahrain	...	...	...	...	...	...	0.2	18.9	2015	...	...	5.4	2015
Djibouti	...	...	...	...	...	...	0.6	14.0 <sup>d</sup>	2013	...	...	2.6	2013
Egypt	...	...	...	0.8	...	...	0.6	14.3	2015	...	...	0.5	2014
Iran, Islamic Republic of	96.7	96.7	...	0.9	...	...	2.8	17.0	2016	...	...	4.1	2016
Iraq	...	...	2.2	0.2	1.6	35.4	0.7 <sup>c</sup>	13.0	2016	...	...	...	...
Jordan	27.8 <sup>d</sup>	80.0 <sup>d</sup>	5.5	0.8	2.1	129.1	6.9	14.0	2016	...	...	0.04	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	...	2.8	37.0 <sup>d</sup>	2013	...	...	...	...
Morocco	...	52.2	1.2	0.4	0.4	18.5	0.8	11.0 <sup>c</sup>	2015	...	...	0.1	2014
Oman	96.7 <sup>b</sup>	70.3 <sup>b</sup>	6.9	0.6	4.4	149.5	1.2 <sup>d</sup>	14.9	2016	...	...	6.1	2016
Pakistan	...	...	0.3	0.1	0.2	1.6	0.5	6.3	2013	...	...	4.6	2013
Palestine	...	...	...	...	...	...	1.6	12.8	2016	...	...	0.7	2016
Qatar	...	...	8.3	0.9	9.2	225.1	0.1	12.0	2013	...	...	4.3	2013
Saudi Arabia	...	...	3.8	0.1	1.0	40.6	0.7	22.3	2016	0.4	2014	4.4	2016
Somalia	...	...	...	...	...	...	1.9	8.7 <sup>b</sup>	2013	...	...	...	...
Sudan	49.3	69.5	1.1	0.2	0.3	12.9	15.6	67.4	2015	...	...	0.5	2014
Syrian Arab Republic	93.0	98.2	...	0.3	...	...	0.8	14.6	2016	...	...	...	...
Tunisia	70.0	80 <sup>d</sup>	8.9	1.6	2.0	22.6	1.9	21.8 <sup>b</sup>	2013	6.6	2012	...	...
United Arab Emirates	61.1 <sup>b</sup>	73.9 <sup>b</sup>	...	0.6	...	...	0.2	13.6	2015	...	...	2.2	2015
Yemen	...	...	3.6	0.1	1.1	17.6	1.5 <sup>c</sup>	7.1	2013	...	...	...	...



# Coverage of selected interventions

Country	Demand for family planning satisfied with modern methods (UN Population Division estimate, 2015)	Antenatal care coverage (1 + visits)	Antenatal care coverage (4 + visits)	Skilled birth attendance		Children under 5 with diarrhoea treated with oral rehydration therapy, 2014	DTP3-containing vaccine/pentavalent coverage among children under 1 year, 2016	Measles immunization coverage, 2016	Coverage of service for severe mental health disorders		Treatment coverage for opioid dependence, 2015
	%	%	%	%	Y	%	%	%	%	Y	
Afghanistan	51.8	59.0	18.0	51.0	2015	58.5 <sup>a</sup>	81	75	...	...	Very limited (1-10%)
Bahrain	85.3	100.0	56.5	...	2014	...	100	100	3.6	2015	More than 40%
Djibouti	44.2	73.0	...	40.0	2011	...	68	75	...	...	...
Egypt	82.9	90.3	82.8	91.5 <sup>a</sup>	2014	30	94	93	20.0	2015	Limited (11-20%)
Iran, Islamic Republic of	92.1	98.4	96.3	99.3	2015	85	99	99	56.0	2015	More than 40%
Iraq	79.3	77.7	49.6	91.5	2015	34.0	73	80	37.0	2013	...
Jordan	83.8	99.1	94.5	99.6	2013	40.0	98	96	...	...	...
Kuwait	77.7	100.0	59.8	100.0	2013	...	99	99	100.0	2015	...
Lebanon	83.1	...	...	...	...	100.0	90	90	...	...	...
Libya	70.8	99.0	66.3	99.0	2014	60.7 <sup>b</sup>	97	97	...	...	...
Morocco	87.5	77.1	42.6	73.6	2011	22.1 <sup>a</sup>	100	100	...	...	Limited (11-20%)
Oman	56.7	99.5	74.5	99.7	2016	...	100	100	11.8	2014	...
Pakistan	65.2	73.1	36.6	52.1	2013	72.0 <sup>a</sup>	86	83	...	...	Very limited (1-10%)
Palestine	78.5	100.0	...	100.0	2014	31.5	100	100	100.0	2016	...
Qatar	69.3	100.0	85 <sup>c</sup>	100.0	2016	69.0 <sup>c</sup>	98	100	...	...	...
Saudi Arabia	60.1	98.0	82.3	98.0	2013	...	98	98	100.0	2016	Substantial (21-40%)
Somalia	44.4	24.2	3.3	38.4	2014	...	51	53	...	...	...
Sudan	35.7	79.0	...	78.0	2014	59.3 <sup>b</sup>	93	87	...	...	...
Syrian Arab Republic	79.1	...	...	...	...	...	61	79	...	...	...
Tunisia	86.0	98.1	85.1	98.6	2013	76.0	98	96	...	...	...
United Arab Emirates	70.9	100.0	100.0	100.0	2013	...	100	100	...	...	Substantial (21-40%)
Yemen	58.0	59.8	25.1	44.7	2015	28.0	86	87	...	...	...

# Coverage of selected interventions

Country	Tuberculosis treatment success rate of new bacteriologically confirmed cases, 2015	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, 2016 <sup>u</sup>	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	%	%			Y
Afghanistan	88	81	18.2 <sup>b,v</sup>	2016	7	22.5	5.9 <sup>c</sup>	17.4 <sup>c</sup>	2014
Bahrain	44 <sup>b</sup>	100	...	2016	42	...	...	...	...
Djibouti	85	100	...	2016	26	...	99.4	...	2014
Egypt	85	100	...	2016	27	10.5	30.2	42.2	2015
Iran, Islamic Republic of	87	100	56.5 <sup>a</sup>	2016	14	27.6	...	...	2014
Iraq	91	100	...	2015	...	...	...	...	...
Jordan	85	100	...	2016	55	...	...	...	...
Kuwait	87	100	...	2016	80	...	...	...	...
Lebanon	83	100	...	2016	51	100.0 <sup>c</sup>	64.2 <sup>d</sup>	75.0	2014
Libya	61	...	...	...	...	...	...	45.6	2012
Morocco	88	100	...	2016	48	23.2	40.1	50.2	2015
Oman	88	100	...	2016	...	0.5	...	...	2014
Pakistan	93	76	34.8 <sup>b</sup>	2016	7	39.3	30.6	22.3	2016
Palestine	91 <sup>c</sup>	100	...	2016	...	...	...	...	...
Qatar	70	100	...	2016	86	...	...	...	...
Saudi Arabia	72	100	...	2016	60	100.0	...	...	2015
Somalia	84	85	19.8 <sup>c</sup>	2015	11	...	20.0	...	2014
Sudan	79	...	34.7	2016	10	...	29.3	16.9	2015
Syrian Arab Republic	91	100	...	2015	...	27.1	...	...	2011
Tunisia	91	100	...	2016	29	18.2	23.0	20.0	2014
United Arab Emirates	85	100	...	2016	...	...	...	...	...
Yemen	87	96	7.1 <sup>c,v</sup>	2016	18	...	...	27.9	2012

<sup>u</sup> WHO/UNAIDS Modelled HIV estimates

<sup>v</sup> In targeted areas

PWID: People who inject drugs

SW: Sex workers

MSM: Men who have sex with men

# Framework for health information systems and core indicators

## 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
- Number of newly reported HIV cases
- Incidence of Hepatitis B
- Incidence of confirmed malaria cases
- Incidence of measles cases
- Number of people requiring interventions against neglected tropical diseases

## 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

