

Supplement 1 Health and health research indicators for EMR countries

Indicator \ Country	Afghanistan	Somalia	Djibouti	Egypt	Morocco	Pakistan	Palestine	Sudan	Syria	Yemen	Iran	Iraq	Jordan	Lebanon	Libya	Tunisia	Bahrain	Kuwait	Oman	Qatar	Saudi Arabia	United Arab Emirates	EMR
World Bank Group economic classification¹	Low income		Lower middle income								Upper middle income						High income						
Health indicators																							
Total population (x1000) ²	31,108	10,252	792	85,294	32,649	193,239	4,440	45,938	20,137	25,338	79,854	34,700	7,220	5,149	6,002	10,836	1,281	2,695	3,154	2,042	26,940	5,474	634,534
Life expectancy at birth, male (years) ³	61	53	60	69	69	65	73	61	73	63	72	67	72	78	73	74	76	78	74	79	74	76	67
Life expectancy at birth, female (years) ³	62	56	63	74	73	67	77	65	78	66	76	74	76	82	77	78	78	79	79	80	78	78	70
Health economics																							
Total expenditure on health (\$/capita) ³	161	N/A	247	539	438	126	3127	221	169	200	1,414	695	761	1,092	764	791	1,900	2,375	796	2,882	1,681	2,233	576
Total expenditure on health (% of GDP) ³	8.1	N/A	8.9	5.1	6.0	2.8	13.0 ⁶	6.5	3.3	5.4	6.7	5.2	7.2	7.2	4.3	7.1	4.9	2.9	2.6	2.2	3.2	3.2	4.5
Health infrastructure																							
Total hospital density (per 100K population) ³	0.37	N/A	N/A	0.62	N/A	0.53	N/A	1.35	N/A	2.97	N/A	0.95	1.94	3.09	2.64	2.33	0.39	N/A	1.35	N/A	1.04	N/A	N/A
Total hospital beds (per 100K population) ⁴	50	N/A	140	50	90	60	N/A	80	150	70	10	130	180	350	370	210	210	220	170	120	210	110	N/A
Research infrastructure																							
University density (per 100K population) ⁵	0.15	0.21	0.13	0.07	0.56	0.16	0.38	0.08	0.12	0.11	0.73	0.16	0.5	0.82	0.23	1.76	1.17	0.41	1.01	0.34	0.2	0.97	0.29
Research centers (per 100K population) ⁵	0.003	N/A	0.13	0.02	0.02	0.006	0.09	0.004	0.01	N/A	0.08	0.003	0.14	0.16	N/A	0.18	N/A	0.11	0.03	0.05	0.02	0.09	0.03
R&D expenditure (% of GDP) ⁴	N/A	N/A	N/A	0.68	N/A	0.29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.68	0.04	0.3	0.17	0.47	N/A	0.49	N/A
Researchers in R&D (per 100K population) ⁴	N/A	N/A	N/A	54.4	85.2	16.7	56.4	N/A	N/A	N/A	N/A	42.5	N/A	N/A	N/A	139.3	5	12.8	12.7	59.7	N/A	N/A	N/A
Technicians in R&D (per 100K population) ⁴	N/A	N/A	N/A	2.75	0.52	0.72	1.75	N/A	N/A	N/A	N/A	0.61	N/A	N/A	N/A	N/A	0.1	0.19	0.51	1.96	N/A	N/A	N/A
World Bank Group economic classification¹	Low income		Lower middle income								Upper middle income						High income						
Biomedical and health research activity																							
Health research size (% of worldwide) ⁶	0.001	0.0001	0.0004	0.23	0.06	0.13	0.01	0.01	0.01	0.004	0.63	0.01	0.05	0.05	0.004	0.13	0.006	0.04	0.02	0.02	0.17	0.03	1.61
10-yr health research	329	N/A	400	410	384	512	491	245	384	217	1061	635	226	239	622	279	145	144	294	683	340	281	496
Publicat. in health research (per 100K population) ⁶	0.04	0.01	0.53	2.49	1.71	0.6	1.58	0.26	0.32	0.16	7.17	0.39	6.35	9.66	0.64	10.91	5.11	12.78	6.91	9.31	5.87	5.88	2.35
Biomedical and health research networks																							
Total number of research locations ⁶	51	5	10	60	42	38	53	115	48	25	149	156	69	56	47	37	35	70	56	56	53	167	1398
H. research unit size (co-author average number) ⁶	3.84	3.83	5.05	3.37	5.14	4.21	3.41	4.05	2.98	3.35	4.04	2.62	3.1	4.17	3.46	5.71	3.39	3.52	3.46	3.88	3.37	3.46	3.98
Biomedical and health research centrality																							
Per cent research share (10 prolific institutes) ⁶	50.8	100	100	69.1	67.5	95.1	75.7	69.9	77.5	89	53.3	58.6	75.5	85.4	80.1	76.6	85.6	76.2	85.5	84.3	66	63.9	26.3
Per cent research share (most prolific institutes) ⁶	13.3	33.3	53.8	16.7	18.6	20.1	20.2	37.6	24.4	53.5	15.3	17.1	32.8	52	27.3	31.4	33.8	55.5	55.1	51.9	29.6	36.1	6
Per cent research share (10 prolific universities) ⁶	4.2	16.7	5.1	64.8	55	50	74.8	60.5	45.5	85.2	53.3	55.9	69.3	83.5	76.1	71.6	45.5	65.7	56.6	20.8	54.2	58.4	26.3
Per cent research share (most prolific universities) ⁶	1.7	16.7	5.1	16.7	18.6	20.1	20.2	37.6	24.4	53.5	15.3	17.1	32.8	52	27.3	31.4	33.8	55.5	55.1	9	29.6	41.6	6
Per cent research share (10 prolific hospitals) ⁶	20	16.7	64.1	4.7	51	9.3	4.5	5.1	5.8	3	4.6	6.3	6.7	43.5	11.7	26.8	7	18.5	41.9	31.1	22.2	16	5.6
Per cent research share (most prolific hospitals) ⁶	7.5	16.7	53.8	1.2	16.2	7.1	1.2	2.8	1.8	1.3	0.8	2.1	3.8	26	8	6.4	2.7	4.4	21.2	18.4	10.2	4.9	1.1

¹Fantom and Serajuddin (2016).

²United States Census Bureau (2018).

³Global Health Observatory (2018).

⁴The World Bank (2018).

⁵Webometrics (2018).

⁶This study.

⁷The Palestinian Central Bureau of Statistics (2018)