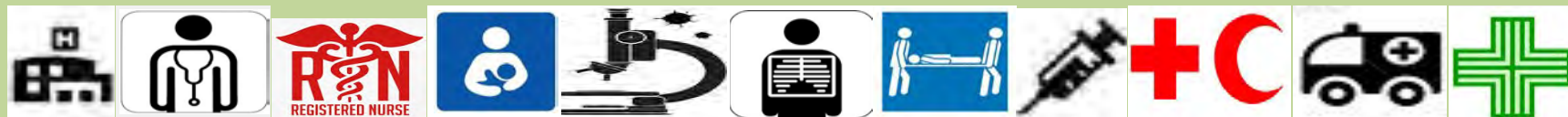


Ebola Epidemic & Human Resources for Health Challenges 2014 Africa Factsheet on Health Workforce



Focusing on Doctors, Nurses & Midwives, & Pharmacists - in Context of 2015 End of MDGs Review, & New Post 2015 Development Goals

23 physicians, nurses and midwives per 10,000 of population.

Countries with fewer than this number and skill mix generally fail to achieve adequate coverage rates for key primary health care interventions prioritized by Millennium Development Goals framework (WHO/WHR 2006). See 2014 Africa Scorecard on HRH covering period 2006-2013

Global/African Human Resources for Health Crisis-At A Glance

4 million

Estimated global shortage of health workers required to achieve Millennium Development Goals by 2015. A major reason for shortages? Majority of countries do not train enough health workers to meet their needs. Overall global deficit of health workers is estimated at 7.2 million.

57 countries (Globally)

Number of countries originally identified in 2006 by WHO/WHR Report on Human Resources for Health (HRH), as suffering critical shortages of skilled health workers. Two years later, the *Kampala Declaration of the 1st Global Forum on Human Resources for Health (2008)* urged urgent action to resolve the global health workforce crisis; again reinforced by the *Recife Political Declaration on Human Resources for Health* - adopted at the 3rd 2013 Global Forum in Recife, Brazil.

36 countries (In Africa)

Of the 57 countries identified in 2006, 36 are in the WHO Africa Region; 5 are in WHO Region of the Americas (AMR), 7 in WHO Eastern Mediterranean Region (EMR), 6 in WHO South-East Asia Region (SEAR), and 3 in WHO Western Pacific Region (WPR). I.e. 63% from WHO Africa Region; 12% from SEAR, 11% from EMR, 9% from AMR, and 5% from WPR.

1.8 million: Estimated deficit of health workers in Africa as of 2013.

24%: Africa's share of global burden of disease.

3%: Percentage of global health work force from Africa.

1%: Percentage of global health expenditure from Africa.

10%: WHO region of America's share of global burden of disease.

37%: Percentage of global health work force from WHO region of America's.

50%: Percentage of global health expenditure from WHO region of Americas.

Table 1: 36 African countries identified by WHO 2006 report as having critical shortage of human resources for health (HRH). Countries without right numbers and skill mix of HRH have lower resilience to epidemics.

*Western Africa (15 Countries)	*Southern Africa (10 Countries)	*Eastern & Horn of Africa (7 Countries)	*Central Africa (5 Countries)
Benin	Angola	Burundi	Cameroon
Burkina Faso	D. R. Congo	Eritrea	Chad
Cote d'Ivoire	Madagascar	Ethiopia	Cent. African Rep.
Gambia	Malawi	Kenya	Congo
Ghana	Mozambique	Rwanda	Equat. Guinea
Guinea	* Tanzania	Uganda	
Guinea Bissau	Zambia	* Tanzania	
Liberia	Zimbabwe		
Mali	Lesotho		
Mauritania	Comoros		
Niger			
Nigeria			
Senegal			
Sierra Leone			
Togo			

*Countries sorted by geographical distribution. Some countries in geographical areas are not members of regional communities. Tanzania belongs to both EAC and SADC. Countries affected by current Ebola outbreak in red - as of 27/08/14. Table Afri-Dev.Info 2014

HRH & Development Goals: "The Ebola crisis demonstrates Africa's health workforce shortages will not disappear without improved long term multisectoral coordination, planning and investment across education, labour, human resources and health sectors. It also underlines that health goals cannot be met without health workers - and that distinct health goals including targets on human resources are required for success of the Post 2015 Development Agenda and the AU 2063 goals - ". (Afri-Dev.Info 2014)

A Warning From The Past: "Health crises of epidemics, natural disasters and conflict are sudden, often unexpected, but invariably recurring. Meeting the challenges requires (advance) coordinated planning..." (WHR 2006)

Health & Economic Development: Experts have established that an extra year of life expectancy can improve GDP by as much as 4%. (HHA 2011)

Table 2: Health workers comparison table - countries affected by Ebola as of 27/08/14 (with countries of roughly equivalent population range) Differences in both density and absolute numbers illustrate scale of HRH shortages

Country Status	Country Name	Population (Millions) For roughly equivalent period of data	Density of Doctors (Per 10,000) 2006-2013	*Absolute No of Doctors	Density of Nurses & Midwives (Per 10,000) 2006-2013	*Absolute No of Nurses & Midwives	Density of Pharmacists (Per 10,000) 2006-2013	*Absolute No of Pharmacists
Ebola Affected Country	Liberia	4,190,000	0.1	51	2.7	978	0.8	269
Comparison Country	Croatia	4,307,000	28.4	12,490	58.0	25,485	7.0	2,972
Ebola Affected Country	Sierra Leone	5,979,000	0.2	136	1.7	1,017	0.2	114
Comparison Country	Denmark	5,598,000	34.2	18,797	160.9	88,335	NA	NA
Ebola Affected Country	Guinea	11,451,000	NA	940	NA	4,408	NA	190
Comparison Country	Cuba	11,271,000	67.2	76,506	90.5	103,014	NA	NA
Ebola Affected Country	DRC	65,705,000	NA	5,827	NA	28,789	<0.05	1,200
Comparison Country	France	63,937,000	31.8	213,442	93.0	587,099	11.0	72,811
Ebola Affected Country	Nigeria	168,834,000	4.1	58,363	16.1	224,943	1.1	2,275
Comparison Country	Japan	127,250,000	23.0	295,049	114.9	1,395,571	21.5	276,517

*(For latest year absolute figures are available - To provide context only); Figures from UNFPA, WHS 2014, and Global Health Observatory; Table by Afri-Dev.Info 2014

Life Expectancy comparison of countries in Table 2. Human Resources for Health/Health Systems are not the only factor in determining life expectancy - but can be a decisive factor. (Afri-Dev.Info 2014)

62 years

Life expectancy in Liberia
78 years
Life expectancy in Croatia
Difference in life expectancy = **16 years**

46 years

Life expectancy in S/Leone
80 years
Life expectancy in Denmark
Difference in life expectancy = **34 years**

58 years

Life expectancy in Guinea
79 years
Life expectancy in Cuba
Difference in life expectancy = **21 years**

52 years

Life expectancy in DRC
82 years
Life expectancy in France
Difference in life expectancy = **30 years**

54 years

Life expectancy in Nigeria
84 years
Life expectancy in Japan
Difference in life expectancy = **30 years**

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Global, Africa Regional and Country Trends in Human Resources for Health

Table 3:

Egypt is the only African country to achieve health workforce density and skill mix of (23 per 10,000) doctors, nurses and midwives for adequate coverage rates required to meet key primary health care interventions as prioritized by Millennium Development Goals framework.

Country Status	Country Name	Population (Millions) For roughly equivalent period of data	Density of Doctors (Per 10,000) 2006-2013	*Absolute No of Doctors	Density of Nurses & Midwives (Per 10,000) 2006-2013	*Absolute No of Nurses & Midwives	Density of Pharmacists (Per 10,000) 2006-2013	*Absolute No of Pharmacists
Africa's best performing country	Egypt	80,722,000	28.3	225,565	35.2	280,561	16.7	133,107
Comparison Country	Germany	82,000,000	38.1	312,695	114.9	944,000	6.2	72,811

*(For latest year absolute figures are available – To provide context only); Figures from UNFPA, WHS 2014, and Global Health Observatory.
Table by Afri-Dev.Info 2014

71 years
Life expectancy-Egypt

81 years
Life expectancy-Germany

Health workforce and Health Systems are not the sole determinant of life expectancy but Egypt's performance has helped close the gap with more developed countries.

Its Vital to Overcome Coordination and Investment Challenges Undermining Needed Pre Service Education and Training.

The achievement of health workers' training is complicated by the fact that in most countries Ministry's of Health are responsible only for HRH employment in the public sector, but not for overall categories of health professionals who are educated, relative to country needs.

In many countries, information on the required skill mix, deployment and distribution of health workers in relation to the health care needs of the population is mostly incomplete. The multisectoral involvement of Planning, National and Social Development, Education, Labour and Human Resources Sectors (by both the Ministries and Parliamentary Committees) is crucial to developing every country's human resources for development needs – including for health. This is too important to be left to chance.

Table 4a:

Africa Top 10 Density of Doctors (per 10,000 of Population) 2006-2013			
Ranking - By Country with highest number of doctors per 10,000	Country	Physicians (per 10,000 population)	Country Population (For roughly equivalent period of study)
1	Egypt	28.3	80,722,000
2	Libya	19.0	6,155,000
3	Tunisia	12.2	10,875,000
4	Algeria	12.1	38,482,000
5	South Africa	7.8	52,386,000
6	Morocco	6.2	32,521,000
7	Nigeria	4.1	168,134,000
8	Namibia	3.7	2,259,000
9	Botswana	3.4	2,004,000
10	Cape Verde	3.0	494,000

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Table 4b:

Global Top 10 Density of Doctors (per 10,000 of Population) 2006-2013			
Ranking - By Country with highest number of doctors per 10,000	Country	Physicians (per 10,000 population)	Country Population (For roughly equivalent period of study)
1	Qatar	77.4	2,051,000
2	Monaco	71.7	38,000
3	Cuba	67.2	11,271,000
4	San Marino	51.3	31,000
5	Austria	48.3	8,464,000
6	Russia	43.1	143,170,000
7	Georgia	42.4	4,358,000
8	Lithuania	41.2	3,028,000
9	Italy	40.9	60,885,000
10	Switzerland	39.4	7,997,000

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In the absence of coordination between the above sectors, and the sectors of Finance and Budgeting, inadequate and mismatched resources are likely to be allocated relative to the needs of each country.

Cost of Training:

The average estimated cost per graduate is \$113,000 for medical students and \$46,000 for nurses; the highest estimated cost per graduate is in North America and the lowest in China.

Distribution of Training Institutions – More required:

Almost 50% of countries worldwide have either one or no medical school. Thirty-five percent of the total number of institutions in the world are located in Brazil, China, India and the USA.

Migration May Be a Factor – But not educating and retaining needed numbers and skill mix is a more decisive factor:

Migration is a factor in health worker shortages in Africa, but not the decisive factor. For instance Egypt and Ethiopia in broadly the same population range have 225,565 doctors (Egypt) to 2,152 doctors (Ethiopia) [Global Health Observatory] 10% to 20% of migration would affect Ethiopia more. This has prompted Ethiopia's laudable massive HRH scaling up program including Community Health Workers.

Table 5a:

Africa Top 10 Density of Nurses & Midwives (per 10,000 of Population) 2006-2013			
Ranking - By Country with highest number of nurses & midwives per 10,000	Country	Nurses and Midwives (per 10,000 population)	Country Population (For roughly equivalent period of study)
1	Libya	68.0	6,155,000
2	South Africa	49.0	52,386,000
3	Egypt	35.2	80,722,000
4	Tunisia	32.8	10,875,000
5	Botswana	28.4	2,004,000
6	Namibia	27.8	2,259,000
7	Algeria	19.5	38,482,000
8	Angola	16.6	20,821,000
9	Nigeria	16.1	168,134,000
10	Swaziland	16.0	1,231,000

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Table 5b:

Global Top 10 Density of Nurses & Midwives (per 10,000 of Population) 2006-2013			
Ranking - By Country with highest number of nurses & midwives per 10,000	Country	Nurses and Midwives (per 10,000 population)	Country Population (For roughly equivalent period of study)
1	Switzerland	173.6	7,997,000
2	Monaco	172.2	2,796,000
3	Denmark	160.9	5,598,000
4	Niue	160.0	1,000
5	Belgium	157.8	11,060,000
6	Iceland	155.9	326,000
7	Norway	134.0	4,994,000
8	Luxemburg	124.7	524,000
9	Qatar	118.7	2,051,000
10	Germany	114.9	82,000,000

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Table 6a:

Africa Top 10 Density of Pharmacists (per 10,000 of Population) 2006-2013			
Ranking - By Country with highest number of pharmacists per 10,000	Country	Pharmacists (per 10,000 population)	Country Population (For roughly equivalent period of study)
1	Egypt	16.7	80,722,000
2	South Africa	4.1	52,386,000
3	Libya	3.6	6,155,000
4	Djibouti	3.2	860,000
5	Tunisia	3.0	10,875,000
6	Morocco	2.7	32,521,000
7	Algeria	2.4	38,482,000
8	Zimbabwe	1.9	13,724,000
9	Namibia	1.8	2,259,000
10	Kenya	1.6	43,178,000

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Table 6b:

Global Top 10 Density of Pharmacists (per 10,000 of Population) 2006-2013			
Ranking - By Country with highest number of pharmacists per 10,000	Country	Pharmacists (per 10,000 population)	Country Population (For roughly equivalent period of study)
1	Monaco	27.1	2,796,000
2	Japan	21.5	127,000,000
3	Jordan	21.4	7,009,000
4	Egypt	16.7	80,722,000
5	Macedonia	15.9	2,106,000
6	Lebanon	15.7	4,647,000
7	Qatar	12.6	2,051,000
8	Belgium	11.9	11,060,000
9	Ireland	11.7	4,576,000
10	Malta	11.6	428,000

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Africa: Overall bottom countries with least density of Human Resources for Health.

- Togo, Somalia, Niger and Tanzania are the only four countries to feature in the bottom 10 - of all the featured categories of Human Resources for Health (i.e. - of doctors, nurses and midwives, and pharmacists).
- Sierra Leone, Liberia and Chad feature in the bottom 10 of countries with least density of doctors, nurses and midwives per 10,000.
- The 10 joint scoring African countries with least density of doctors per 10,000 are: Tanzania (0.1); Liberia (0.1); Sierra Leone (0.2); Niger (0.2); Malawi (0.2); Ethiopia (0.3); Somalia (0.4); Chad (0.4); Mozambique (0.4); and Togo (0.5); Central African Republic (0.5); Burkina Faso (0.5).
- The 10 joint scoring African countries with least density of nurses and midwives per 10,000 are: Somalia (1.1); Niger (1.4); Sierra Leone (1.7); Chad (1.9); Tanzania (2.4); Ethiopia (2.5); Central African Republic (2.6); Togo (2.7); Liberia (2.7); and Malawi (3.4).
- The 10 joint scoring African countries with least density of pharmacists per 10,000 are: Tanzania (<0.5); Togo (<0.5); Niger (<0.5); Dem. Rep. of Congo (<0.5); Central African Republic (<0.5); Cameroon (<0.5); Benin (<0.5); Sudan (0.1); Somalia (0.1); Senegal (0.1); Rwanda (0.1); Mali (0.1); Guinea Bissau (0.1); Cape Verde (0.1).

Africa: Overall bottom sub regions with least density of Human Resources for Health.

- West Africa is the region with 4 countries in the bottom 10 of all featured HRH categories.
- Central Africa has at least 2 or 3 countries in the bottom 10 of all featured HRH categories.
- East Africa has at least 2 or 3 countries in the bottom 10 of all featured HRH categories.

Africa: Fragile States, Post Conflict and Conflict Zones

- Liberia, Sierra Leone, Central African Republic and Somalia feature in bottom 10 of 2 or more key HRH categories, with DRC featuring in one category.

Key Recommendations

- Health Sector (Ministries and Parliamentary Committees) in countries need to work urgently with Education, Labour and Human Resources Sectors (in both Ministries and Parliaments), and also Ministries / Parliamentary Committees of Finance, Planning, Social and Economic Development to establish multi sectoral clusters for human resources development planning – towards estimates, costing and budgeting for training and retention of required mix of health workforce / human resources for health.
- Governments and development partners need to ensure methodical follow up and implementation of pledges and commitments agreed in the Recife Political Declaration on Human Resources for Health - including renewed commitments towards universal health coverage, as adopted at the 2013 Third Global Forum on Human Resources for Health in Recife, Brazil – and adopted by the 2014 World Health Assembly.
- All Human Resources for Health stakeholders should actively support WHO and GHWA to develop a new global strategy on human resources for health - for consideration by Member States at the 69th session of the World Health Assembly in 2016.

Main sources for study summarized in integrated 2014 HRH factsheet and scorecard:

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