



**DELTA Africa Learning Research Programme:
A list of postgraduate training programmes in Medical and Health
Sciences provided by Higher Education Institutions in sub-Saharan
Africa**

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1. INTRODUCTION

This report summarises the findings from an aim to ‘map’ the number and type of health-related postgraduate training programmes currently provided by Higher Education Institutions (HEIs) in Anglophone and Francophone countries within sub-Saharan Africa (SSA). The mapping exercise was completed by the Capacity Research Unit (CRU) at the Liverpool School of Tropical Medicine (LSTM), in collaboration with the Institut Pasteur, Paris, as a part of the ‘DELTA Africa’ Learning Research Programme. The aims of the mapping exercise were to:

1. Provide a comprehensive, up-to-date registry of SSA HEIs providing postgraduate training in health-related courses, and a description of the courses themselves
2. Identify the relative availability of health-related postgraduate training programmes both across and between Anglophone and Francophone SSA countries

It was anticipated that the resulting registry (presented in Excel format and accessed via the link below) will serve as a useful reference document for a wide range of purposes, including informing the strategies in the development of DELTA consortia. Also, it may usefully inform research capacity strengthening initiatives in the SSA region.

To access the full list of postgraduate training programmes summarised in this report, follow this link (Excel file listed at bottom of page in ‘Downloads’ section):

<http://www.lstmed.ac.uk/research/centres-and-units/capacity-research-unit-cru/our-projects/deltas-learning-research>

For more information about the DELTA Africa initiative:

<https://wellcome.ac.uk/what-we-do/directories/developing-excellence-leadership-training-and-science-initiative>

For more information about the DELTA Africa Learning Research Programme:

<http://www.lstmed.ac.uk/research/centres-and-units/capacity-research-unit-cru/our-projects/deltas-learning-research>

Important Note:

Every attempt has been made to ensure the information listed in the registry is accurate and complete. However, it is possible that some entries on the registry may be inaccurate or out of date and/or relevant data may have been omitted (e.g. the list of health-related postgraduate training programmes provided by each specified HEI may be incomplete and/or HEI providing health-related postgraduate training programmes may not have been listed). In order to improve the accuracy and completeness of this registry, we would kindly ask that any **errors or omissions noted by readers are reported to Pierre Abomo** at pierre.abomo@lstmed.ac.uk. The registry is scheduled to be updated: March 15th, 2018.

2. METHODOLOGY

The basis of the study was an online search conducted from March to August 2017 through institutional registries and websites of SSA HEIs. The mapping was limited to postgraduate training programmes in health-related subjects, subsequently categorized under the following headings:

- 1) Medical sciences: training programmes concerned with the study of the diagnosis, treatment, clinical matters, and prevention of diseases;
- 2) Biomedical sciences: training programmes dealing with life science subjects applied to medical sciences;
- 3) Public Health: training programmes aimed at the promotion and protection of health and well-being of people, preventing ill-health and prolonging life through the organised efforts of society; and
- 4) Other: any health-related training programmes that did not fit under categories 1-3.

We have observed the continental subdivision of Africa according to the African Union¹, excluding North Africa. For each region (Central Africa, West Africa, East Africa and Southern Africa), we conducted an online search country by country to identify both the available training programmes and the HEIs offering them. For each country, we sought and (where located) searched the websites of the Ministries of Education and Health to identify universities and schools of health training. Similarly, we consulted, when they existed, the websites of national accreditation bodies for health diplomas. Where operational websites were not available, an online search was completed using registries from international organisations such as WHO's World Directory of Medical Schools, Agence Universitaire de la Francophonie (AUF) and the Foundation for Advancement of International Medical Education and Research. This work was complemented by a Google Search to capture HEIs (or relevant training programmes) not listed on official websites. The following keywords were used along with the name of the country or university identified: "Health Education in Sub-Saharan Africa"; "Health Education Institutions in Sub-Saharan Africa", "Health Education Institutions in Sub-Saharan Africa", "Health Education in Sub-Saharan Africa", "Opportunities for Higher Education in Sub-Saharan Africa".

All web pages/directories for identified SSA HEIs were manually reviewed for reference to any form of health-related postgraduate training programme, for which the following details were then recorded: Region, Country, HEI name, course name (e.g. epidemiology and biostatistics, cardiology, environmental health), discipline (coded as either 'biomedical', 'medical sciences', 'public health' or 'other health'), highest qualification level (e.g. certificate, diploma, Masters, PhD), sector status (coded as public or private), website address and any relevant comments.

Data captured on the project-specific spreadsheet were independently verified and/or updated, where possible, by key informants from training institutions, academia, experts and health professionals operating in SSA. Key informants were identified through the network of Institut Pasteur across West, Central and Southern Africa, via contacts listed in websites of Universities and Faculties and by a snowball strategy whereby key informants suggested additional reviewers. The verification process was conducted through discussions and interviews by phone and e-mail.

¹World Bank. <https://data.worldbank.org/region/sub-saharan-africa>.

3. RESULTS

At least one HEI providing postgraduate, health-related training was identified in 85% (34/40) of Anglophone or Francophone countries in SSA. The number of HEIs, postgraduate training programmes and programme type per country are presented in Annex One.

Across these 34 countries, a total of 163 HEIs collectively provide 1599 postgraduate training programmes in a health-related discipline. 94.3% of these 1599 postgraduate training programmes were independently verified. Table 1 presents the number and type of postgraduate training programmes overall, by region and by language group. A full description of each training programme, by HEI and country, is available in the aforementioned Excel file.

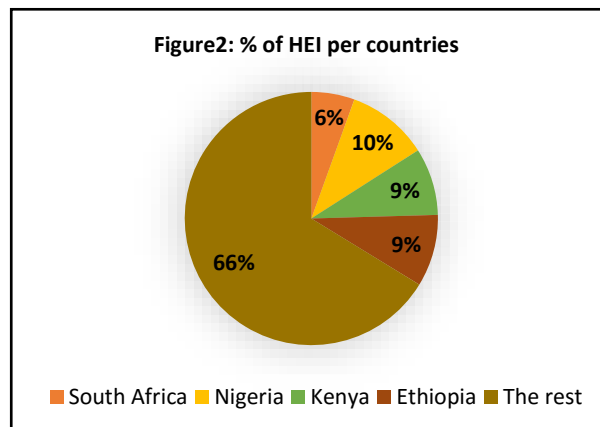
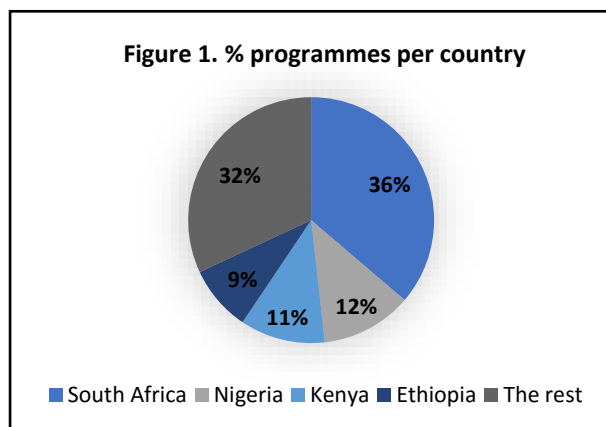
As shown in Table 1, the vast majority (93%) of training programmes are provided through publicly-funded HEIs and a majority of courses are in the medical sciences (58.7%) and awarded at a maximum of Masters level (65.8%).

In terms of regional distribution, 41% of programmes were provided by HEIs located in the Southern Africa region, 27% East Africa, 25% (400/1599) West Africa and 7% Central Africa. 82% of available postgraduate training programmes were provided by HEIs located in Anglophone countries.

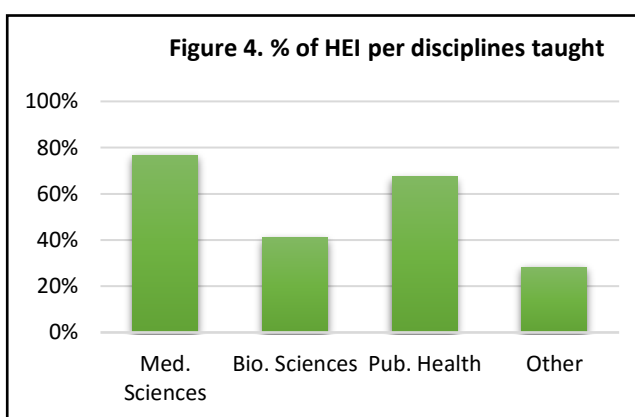
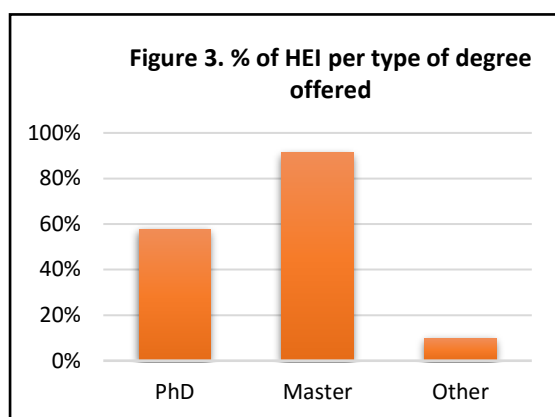
Table 1. The number and type of postgraduate training programmes overall, by region and language group

		Overall		African Regions								Language			
				WA		CA		EA		SA		Ang		Fr	
		1599		400		115		428		655		1314		284	
Status	Public	1482	93%	374	94%	89	77%	368	86%	651	99%	1229	94%	253	89%
	Private	116	7%	26	7%	26	23%	60	14%	4	1%	85	6%	31	11%
Disciplines	Med. Sciences	938	59%	179	45%	59	51%	242	56%	458	70%	830	63%	108	38%
	Bio. Sciences	203	13%	105	26%	21	18%	42	10%	35	5%	138	10%	65	23%
	Public Health	346	21%	97	24%	27	24%	116	27%	106	16%	260	20%	86	30%
	Other	111	7%	19	5%	8	7%	28	7%	56	9%	86	7%	25	9%
Highest Level	PhD	471	29%	191	48%	61	53%	94	22%	125	19%	356	27%	115	41%
	Masters	1052	66%	178	45%	52	45%	295	69%	527	80%	918	70%	134	47%
	Other	75	5%	31	7%	2	2%	39	9%	3	1%	40	3%	35	12%

Overall, 68% of the postgraduate training programmes were provided by HEIs located in four countries (Figure 1). South Africa alone accounts for 36% of the postgraduate training programmes in health-related sciences. These four countries account for 34% of the identified HEIs (Figure 2), suggesting a relatively small proportion of HEIs are providing the majority of health-related postgraduate training programmes in SSA.



Overall, 58% of HEIs provided at least one health-related training programme at the level of PhD, 91% at least one programme at the level of Masters and 10% provided a postgraduate award below Masters level (Figure 3). 77% of HEIs provided at least one programme in medical sciences, 41% in Biomedical sciences, 67% in public health and 28% in some other form of health-related programme (Figure 4).



4. DISCUSSION

Health-related postgraduate training programmes are not evenly dispersed across SSA. The majority of available courses are provided by a relatively small number of HEIs in a relatively small number of countries, including South Africa, Kenya, Nigeria and Ethiopia.

Availability appears lowest in Central Africa and in Francophone speaking SSA countries. Central Africa accounts for 13.4% of the SSA population, but only has 7% of available postgraduate training programmes. Francophone SSA countries account for 28.5% of the SSA population, but only has 18% of available postgraduate training programmes.

Close to 50% of HEIs currently providing postgraduate awards in health-related sciences do not have PhD programmes available and only 28% provide an award below Masters level. This suggests access

to the most basic, and most advanced, postgraduate qualifications are limited in many areas across SSA.

Health-related postgraduate training programmes in SSA are almost exclusively provided by Government owned institutions.

Information about such training programmes appears to be more easily accessible in Anglophone Africa compared to Francophone Africa, as the percentage of unsatisfactory completion of the verification process was only 2.7% for Anglophone Africa, compared to 18.6% for Francophone Africa, even though the number of entries in the Excel document was much higher in the first region (1222 entries) than in the second region (273 entries).

5. STUDY LIMITATIONS

The reported information was mainly gathered through online sources, and many African universities, especially in French speaking countries, have limited (or nil) information online. The verification process overcomes this limitation in part. It should also be noted that quality or the content of the listed postgraduate training programmes were not assessed.

ANNEX

	Region	Country	Language	No. HEI	No. of Prog.	Public	Private	Med. Sciences	Bio.Med	Pub. Health	Other	PhD	Masters	Other
1	West Africa	Benin	French	4	23	4		3	1	2	1	3	4	
2	West Africa	Burkina Faso	French	4	12	3	1	1		4		1	4	
3	Central Africa	Burundi	French	3	3	1	2	3						
4	Central Africa	Cameroon	Fr/Eng	11	59	8	5	9	8	7	3	6	10	
5	Central Africa	CAR	French	1	2	2		1	1			1	1	
6	Central Africa	Chad	French	2	5	1	1	2		1		2	1	
7	Central Africa	DRC	French	17	30	11	6	15	2	4	1	13	11	1
8	East Africa	Djibouti	French	1	1	1		1				1		
9	Central Africa	Gabon	French	3	3	2	1	2			1	2	2	
10	West Africa	Guinea	French	1	14	1		1	1	1		1	1	1
11	West Africa	Ivory-Coast	French	4	32	4		2	2	4	1	2	4	1
12	Southern Africa	Madagascar	French	8	33	7	1	6	1	5	4	4	8	1
13	West Africa	Mali	French	1	3	1				1			1	
14	West Africa	Mauritania	French	1	1	1				1			1	
15	West Africa	Niger	French	4	24	4		3	2	4	4		3	2
16	Central Africa	Rep of Congo	French	1	8	1		1	1	1		1	1	

17	West Africa	Senegal	French	7	36	7		2	3	6	2	5	7	1
18	West Africa	Togo	French	1	6	1		1	1	1		1	1	
19	East Africa	Ethiopia	English	15	138	14	1	10	6	14	4	5	15	4
20	West Africa	Gambia	English	3	5	1	2	1		2		1	3	
21	West Africa	Ghana	English	6	45	5	1	4	4	4	1	4	6	
22	East Africa	Kenya	English	14	179	10	4	10	7	14	6	8	14	2
23	West Africa	Liberia	English	2	7		2	2		1	1	1	2	
24	Southern Africa	Malawi	English	1	2	1		1		1		1	1	
25	Southern Africa	Namibia	English	1	5	1		1	1	1	1	1	1	
26	West Africa	Nigeria	English	17	191	15	2	17	14	11	2	16	17	2
27	Central Africa	Rwanda	English	1	6	1				1	1	1	1	
28	West Africa	Sierra Leone	English	1	1	1				1			1	
29	Southern Africa	South Africa	English	9	579	9		9	7	9	9	8	9	
30	East Africa	Sudan	English	3	3	1	2	3					3	
31	East Africa	Tanzania	English	7	59	2	5	7	3	3	1	3	7	1
32	East Africa	Uganda	English	4	48	3	1	3	2	4	2		4	
33	Southern Africa	Zambia	English	4	12	2	2	3		1		1	4	
34	Southern Africa	Zimbabwe	English	1	24	1		1		1	1	1	1	

Countries with missing information														
35	Southern Africa	Botswana	English											
36	Southern Africa	Lesotho	English											
37	Southern Africa	Swaziland	English											
38	East Africa	Comoro Islands	French											
39	East Africa	South Sudan	English											
40	East Africa	Mauritius	English											
Countries not covered in the mapping (non-Anglophone/Francophone)														
41	East Africa	Eritrea	Arab/Eng/Tigr											
42	East Africa	Somalia	Arabic											
43	Central Africa	Angola	Portuguese											
44	Central Africa	Equatorial Guinea	Spanish											
45	Central Africa	Sao-Tome & Principe	Portuguese											
46	West Africa	Guinea-Bissau	Portuguese											
47	West Africa	Cabo Verde	Portuguese											
48	East Africa	Mozambique	Portuguese											
Total				163	1599	127	39	125	67	110	46	94	149	16