



INCREASING INDEXED STUDENT PLACES IN HEALTH TRAINING INSTITUTIONS

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Innovative approaches have led to an increased number of indexed places at Health Training Institutions.

Background

Inadequate numbers of health workers is impairing the provision of essential, life-saving interventions such as childhood immunization, safe pregnancy and delivery services for mothers, and access to treatment for HIV/AIDS, malaria and tuberculosis in many developing countries^{i,ii}. Increasing the number of health workers trained has been identified as one of the core strategies to improve this critical shortage of health workers. The World Health Organisation (WHO) in its report “Scaling Up, Saving Lives” calls for a rapid and significant scaling up of investment in education and training of health workers as part of a broader effort to strengthen health systems^{iii,iv}.

A critical shortage of health workers is an enormous problem in Northern Nigeria. As an example, although the WHO recommends 72 Midwives to 100,000 populations or 6 midwives for every 1,000 births for sub-Saharan Africa^{v,1}, Jigawa state has 337 instead of the required 3334 midwives^{vi}. Unfortunately also Jigawa state has only one Health Training Institution (HTI) for training midwives with approved indexed places of 30 students per intake per year. If Jigawa is able to index and graduate to its maximal capacity of 30 students per annum, then it will take the state more than 90 years to train enough midwives for its population needs. This situation is not peculiar only to Jigawa state but common place in other Northern Nigerian states (including Kano with a deficit of 6412, Katsina with 4500, Yobe with 1647, and Zamfara with 2751 deficits) (Table 1)⁶. To improve the number of available health workers in these five states therefore, there is the need to focus on the number of students enrolled and indexed in Health Training Institutions (HTIs) amongst other strategies.

Since 2012, the UK aid-funded Women for Health (W4H) programme has been supporting HTIs in these states to increase the number and quality of front-line health care providers and support their deployment to rural health facilities. This document describes W4H efforts and experiences with increasing indexed student places in Northern Nigeria HTIs, results achieved and challenges faced.

Table 1: Number of Midwives required compared with Number of midwives (MWs) available and numbers of indexed places approved by NMC as at 2014

State	Population	No. of midwives required based on the WHO standard	No. of midwives available	Deficit	No. of Midwifery schools	Indexed places approved by NMC
Jigawa	4,631,412	3334	337	2998	1	30
Kano	9,993,847	7196	784	6412	2	90
Katsina	6,715,185	4835	335	4500	1	50
Yobe	2,321,591	1672	24	1647	0	0
Zamfara	4,064,092	2926	175	2751	2**	78
Total	27,726,127	19,963	1,655	18,308	6	248

** 1 Basic midwifery (50 indexed places) and 1 Community midwifery programme (28 indexed places)

Indexed student places, what does it mean and what are the implications?

Determining an appropriate input to HTIs should be a key component of any plans for healthcare workforce development and an essential part of any country's aim of increasing self-sufficiency. In Nigeria, the regulatory bodies, which are parastatals of the Federal Ministry of Health, have been given the responsibility for determining the student intakes into medical, midwifery, nursing and community health colleges. The Schools of Nursing and Midwifery are regulated by the Nursing and Midwifery Council of Nigeria (NMC), while the Schools of Health Technology responsible for training community health workers are regulated by the Community Health Practitioners Registration Board (CHPRB).

The term "indexed student places" refers to the number of students recruited and registered to commence training by the regulatory bodies in a given time period. It involves the introduction of a capping system for each intake. The need to introduce indexing/capping of students has been used by regulatory bodies as a strategy to ensure quality of teaching and outputs of HTIs.

The NMC introduced a capping of 50 students per intake per Nursing or Midwifery School with provisional accreditation status and a maximum of 100 students for Nursing and Midwifery Schools with full accreditation. The CHPRB has indexed student places of 75 for Junior Community Health Extension Workers (JCHEW) and 50 for Community Health Extension Workers (CHEW) students.

Considering the dire need for rapid scale up and improved skill mix of health workers in Nigeria, it appears that the number of indexed places approved by the regulatory bodies has remained static without taking the national and state specific needs for Human Resources for Health (HRH) into consideration. A periodic review of indexed places vis-a-vis the HRH needs of the country should have been a critical first step to HRH planning in Nigeria.

Innovative interventions to increase indexed student places

Increasing the number of indexed student places is critical for HRH development and also a core indicator for the W4H programme. W4H programme indicator 1.3 is: “**Number of indexed student places (approved by Council/Board) by type a) midwifery b) CM c) nursing d) CHEW e.) JCHEW.**” Since 2013, the W4H programme has implemented diverse interventions to increase indexed student places. These include the following:

1. Strategic engagement with the regulatory bodies to increase the number of indexed places
2. Provision of support to HTIs to regain, maintain and achieve full accreditation
3. Provision of support to Schools of Midwifery to commence the Community Midwifery programme
4. Support to State Governments to establish new HTIs
5. Improving the quality of student intake
6. Increasing the chance of student passing the weeding examination
7. Support to improve the pass rate in the final qualifying examination

These interventions can be grouped into **initial** (intervention 1) and **subsequent** interventions (interventions 2-6).

a. Initial interventions to increase the number of indexed places

Intervention 1: Strategic engagement with the regulatory bodies to increase the number of indexed places

Since its inception the W4H Programme engaged with the regulatory bodies on many strategic issues. One of the core strategic issues has been to ensure increase in the number of indexed places approved by the regulatory bodies. Several interventions were implemented, which include:

- Several meetings with the Heads of Department of the NMC, and the Registrars of the NMC and CHPRB.
- Formal letters and several advocacy meetings with the Executive Chairmen of the NMC board and the CHPRB governing board.
- Actively supporting and strengthening the capacity of state-based NMC committees and the zonal CHPRB.
- Providing technical advice to the NMC and CHPRB on the importance of implementing a system to regularly review the number of indexed places approved.
- Providing technical support on curriculum review and revision.

All these activities were based on clearly defined terms of references drafted by the W4H programme. Although, the two regulatory bodies (NMC and CHPRB) expressed appreciation and commented positively about these engagement activities, they did not agree to review the system for approving indexed places nor were changes made to the approved indexed places.

What is the main concern of the regulatory bodies with regards increasing the number of indexed student places?

The regulatory bodies have consistently maintained that they have capped the number of indexed places as required and that an increase in the number of students recruited per intake will result in a fall in the quality of education. This has however remained an assumption that has never been tested

by any of the regulatory bodies or evaluated. It is however, unlikely that an increase in the number of student places will result in a fall in quality if the following is undertaken:

- Introducing and ensuring minimum academic entry requirements;
- Capacity building of tutors and clinical trainers;
- Improving the quality of teaching provided to students;
- Providing academic and pastoral support to students;
- Monitoring dropout rates, and instituting a system to identify and support academically weak students;
- Developing and implementing a quality assurance system for education and training, including effective accreditation processes, and indicators of progress appropriate to the needs of the country; and
- Developing systematic methods for quality improvement, including quality standards for service and monitoring.

b. Subsequent interventions to increase the number of indexed places

W4H's experience with the regulatory bodies, lack of outcomes from the initial interventions and a high demand for extra places led to a change of approach and the introduction of newer interventions.

Intervention 2: Provision of support to HTIs to regain, maintain and achieve full accreditation

The accreditation status of each HTI determines the indexed places approved by the regulatory bodies. The award of "Full Accreditation" status by the NMC allows an HTI to index up to 100 students per intake while provisional accreditation allows a maximum of 50 students and denied accreditation puts an embargo on students' recruitment for the programme. A full or provisional accreditation by CHPRB allows a maximum indexed places of 50 CHEWs and 75 JCHEWs students per intake while similarly to the NMC, denied accreditation puts an embargo on recruitment.

As a result, W4H focused interventions on strategically ensuring that HTIs with denied accreditation regained accreditation, those with provisional accreditation achieved full accreditation, and those with full accreditation maintained their accreditation status. These interventions included a combination of activities to build institutional capacity (provision of physical infrastructures etc) and expand teaching capability (training of more health workers as tutors, capacity building of existing tutors on effective teaching skills etc.).

W4H also provided technical assistance to strengthen the state based NMC committee to perform their roles, which include writing quarterly progress reports on accreditation issues to the NMC. This progress reports contain information such as the number of BNSC graduates with PGDE, the number of tutors recruited by each HTI and the current students' population in the school. This information are needed by the NMC to increase indexed student places.

Intervention 3: Provision of support to Schools of Midwifery to commence the Community Midwifery programme

W4H in collaboration with State Governments, made several advocacy visits to NMC for the establishment of the Community Midwifery (CM) programme in Schools of Midwifery. Support was also provided for states to conduct resource verification in the Schools of Midwifery and ensure adequate follow up to the Council to solicit for the establishment of the CM programme.

Intervention 4: Provision of support to state to establish new HTIs and expand existing ones

W4H provided advocacy and technical support to State Governments to establish new HTIs and to expand existing HTIs. Each HTI developed a costed operational plan which contains details on how to expand the HTI. These include for example; plans to expand existing Schools of Midwifery to achieve full accreditation so as to be able to recruit students to the maximum number allowable (100 students per intake). All the six Schools of Midwifery also have detailed plans to develop and run the new CM programme including the expansion of the CM programme in Zamfara and Katsina states. Furthermore, there are plans to ensure that the Schools of Nursing also achieve full accreditation and recruit 100 students per intake. Strategies for expansion are being implemented in a systematic manner to ensure that quality of teaching is not compromised.

Intervention 5: Improving the quality of student intake

Health workers generally enter pre-service education after completion of secondary school. To ensure that there are enough qualified secondary school graduates applying to HTIs, reduce attrition among students and improve accessibility, the W4H programme introduced the Foundation Year Programme (FYP) which provides rigorous support to augment entry requirements to enable students to pass entrance examinations into HTIs. It has two pathways, the **Bridging pathway** for people who do not hold the qualifications to enter directly onto a health training programme, and the **Preparatory pathway** which gives support to students who have prescribed entry requirements but lack the experience to succeed in HTIs entrance examinations.

Intervention 6: Improving the number of student passing the weeding examination

The W4H programme also introduced initiatives to retain students and ensure that they pass the weeding examination which is the pre-requisite for indexing. This support includes extra academic support (extra coaching), tutorial and pastoral support to FYP students and to other students. This helps to reduce student attrition, prevent wastage and maximises the allocated indexed places.



Results and Challenges

Since the introduction of these interventions, W4H has noticed progressive improvement in number of indexed places approved. Key results are discussed below:

a. Improved accreditation status led to increased number of indexed places

At the inception of the W4H programme in 2013, only one HTI had full accreditation, 10 were on provisional accreditation and five had denied accreditation status. W4H interventions to improve the accreditation status of HTIs resulted in significant improvement in 2014 with 5 HTIs being awarded full accreditation status compared with one at baseline. All the five HTIs that had withdrawn accreditation at baseline also regained provisional accreditation with a total of 11 HTIs on provisional accreditation compared with only 10 HTIs at inception.

The improvement in accreditation status therefore led to increase in the indexed places approved by the regulatory bodies from 943 in 2013 to 1338 in 2014 (Table 2). Drastic reduction in the number of HTIs with denied accreditation also increased the indexed places. In 2015, the number of HTIs with full accreditation increased further to seven. This however did not lead to significant increase in indexed places as the two HTIs with full accreditation are Schools of Health Technology (Jahun and Tsafe) (Table 2).

a. Establishment of new HTIs and programme led to increased indexed places

Four new HTIs were established between late 2014 and 2015. Three of these HTIs are in Kano state (School of Nursing Madobi, School of Health Technology Babeji and School of Post Basic Midwifery Gezawa), while one is in Yobe state (SOM Damaturu). Katsina State also commenced the Community Midwifery programme in School of Midwifery Malumfashi. The addition of these new HTIs and programme led to the approval of 265 new indexed places in those states (Table 3). The inclusion of these newly approved indexed places into the year 2015 figures in Table 2 **brings the total number of approved indexed places for 2015 to 1,613.**

All the newly established HTIs have been given provisional accreditation status by the respective regulatory bodies. There are vigorous plans by the Katsina State government to establish a new School of Midwifery in Mani Local Government Area.

b. Effective collaboration with State Governments and increased ownership of all processes

The comprehensive approach used by the W4H programme to map, engage and collaborate with all stakeholders in the states has measurably improved the ownership and commitment of stakeholders to HTIs and has been seen as the foundation for institutionalisation and sustainability of programme interventions beyond the life span of the W4H programme.



Deputy Governor of Yobe visit to a Health Training Institute

Table 2: Trends in indexed places approved by regulatory bodies and the impact of improved accreditation

State	Name of School	Type of programme	Regulatory body	Accreditation status and No of indexed places approved					
				2013 (W4H inception)		2014		2015	
				Accreditation status	Indexed places approved	Accreditation status	Indexed places approved	Accreditation status	Indexed places approved
Jigawa	SOM Birnin Kudu	Basic Midwifery	NMC	None	0	Provisional	30	Provisional	30
	SOM Birnin Kudu	Basic Nursing	NMC	Provisional	50	Full	100	Full	100
	SOHTJahun	CHEW JCHEW	CHPRB	Provisional	50 75	Provisional	50 75	Full	50 75
Katsina	SOM Malumfashi	Basic Midwifery	NMC	Denied	0	Provisional	50	Provisional	50
	SON Katsina	Basic Nursing	NMC	Denied	0	Provisional	50	Provisional	50
	SOHT Daura	CHEW JCHEW	CHPRB	Provisional	50 75	Full	50 75	Full	50 75
	SOHT Kankia	CHEW JCHEW	CHPRB	Provisional	50 75	Full	50 75	Full	50 75
Kano	SON Kano	Basic Nursing	NMC	Full	50	Full	100	Full	100
	SOM Kano	Basic Midwifery	NMC	Provisional	50	Provisional	50	Provisional	50
	SOM Dambatta	Basic Midwifery	NMC	Provisional	40	Provisional	40	Provisional	40
	SOHT Kano	CHEW JCHEW	CHPRB	Provisional	50 75	Denied	0 0	Full	50 75
Yobe	Dr Shehu Sule SON&M Damaturu	Basic Nursing	NMC	Provisional	50	Provisional	50	Provisional	50
	SOHT, Nguru	CHEW JCHEW	CHPRB	Provisional	50 75	Provisional	50 75	Denied	50 75
Zamfara	SOM Gusau	Basic Midwifery Community Midwifery	NMC	Denied	0	Provisional	50	Provisional	50
					0		28		
	SON Gusau	Basic Nursing	NMC	Denied	0	Provisional	50	Provisional	50
	SOHT Tsafe	CHEW JCHEW	CHPRB	Denied	0 0	Provisional	50 75	Full	50 75
Total					943		1338		1348

Table 3: Impact of establishing new Health Training Institutions and Programmes on indexed student places

State	Name of newly established School/Programme	Type of programme	Regulatory body	Accreditation status	No of indexed places approved
Katsina	Community Midwifery in the SOM, Malumfashi	Community Midwifery	NMC	Provisional	30
Kano	SON Madobi	Basic Nursing	NMC	Provisional	40
	SOM Gezawa	Post Basic Midwifery	NMC	Provisional	30
	SHT Babeji	CHEW JCHEW	CHPRB	Provisional	50 75
Yobe	SOM Damaturu	Basic Midwifery	NMC	Provisional	40
Total number of newly approved indexed places					265

Challenges for further action

a. Inadequate number of tutors

An inadequate number of tutors has been identified as a major obstacle to scaling up education in developing countries³. In Nigeria, adequate numbers of tutors is critical for full accreditation. It is expected that Schools of Nursing and Midwifery have a ratio of one tutor to ten students and that Schools of Health Technology have at least five tutors.

Although several interventions have been implemented by the W4H programme to increase the number of trained tutors in the programme states. A major obstacle is that there is shortage of tutors generally in the country which is more severe in the North. This is due to clinicians not willing to be trained as tutors', and the availability of only three institutions in the country training tutors with maximum intake of 30-40 students per annum. This makes rapid scale up in the number of tutors extremely difficult. Other W4H activities designed to increase the number of tutors in the five programme states included:

- Supporting State Governments to develop tutors training plans and made projection for 5 years tutor needs by HTIs
- Collaborating with Umar Musa Yar'adua University (UMYU) Katsina to train BNSC holders in PGDE to fill some of the gaps. So far, the first set of 20 BNSC holders with PGDE qualifications have graduated and are waiting to be registered as tutors by the NMC (Registration will be facilitated by W4H). The second batch of 12 BNSC holders are graduating in February 2016 in FCE Kano
- Prioritising the training of unqualified tutors without BNSC who are currently teaching in the Schools to go for the 18 months tutors' course.
- Providing a supportive work environment through the use of incentives.
- Twinning Nigeria tutors with tutors in the UK to create opportunities for learning, exchange of ideas and placements.

Unfortunately as there is a limited number of available places for training tutors and the majority of the tutors sponsored for training by W4H will only qualify towards the end of the W4H programme in

late 2016 and early 2017. This means the full benefit of some of these interventions will only be realised after the lifespan of the W4H programme in 2017.

b. Ineffective national HRH planning framework

The Nigeria National HRH Policy and strategic plan asks for an increase in the number of students trained^{vii}. However, these policy statements have not been effectively translated into action as there seems to be a disconnection between the policy and the stand of the regulatory bodies. The number of indexed student places has never been reviewed by the regulatory bodies to meet national projected HRH needs nor has there been a national requirement by the Federal Government to remove capping or for numbers to be increased.

c. Lack of will by the regulatory bodies to effectively review the indexed student places and align it to the HRH needs of the country

Many countries with a shortage of health workers have typically used increasing intakes of student numbers into existing institutions as one their first strategies. This has been documented in Malawi, Mozambique and the United Republic of Tanzania^{viii,ix,x}.

In developed countries, a rolling cycle of reviews of health worker intakes has been established. As an example, the United Kingdom (UK) through the Department of Health and the Higher Education Funding Council for England undertakes a review of medical and dental student intakes every three years to assess whether the current level of intakes are in line (as far as is possible) with predicted future workforce requirements^{xi}. Outcomes of these reviews have helped these countries in effective decision making. In the UK, the 2002 Wanless report estimated that by 2022, training places for doctors would need to be expanded by a further 50%, those for nurses and midwives by 7% and those for other qualified staff by 80%^{xii}. In the United States, the Association of American Medical Colleges has recommended that by 2015 medical schools increase their enrolments by 30%, or 5,000 students annually after a review of students' intake^{xiii}.

Although most health courses are vastly oversubscribed in Nigeria, the capping systems by the regulatory bodies however block HTIs from taking on more students. Although W4H offered technical support to the regulatory bodies to help initiate a rigorous review system to ensure efficiency of the indexing system currently used by the regulatory bodies, this offer has so far not been accepted and would possibly need more time and effort.

ⁱWHO (2006) *World Health Report 2006: working together for health*. WHO, Geneva.

ⁱⁱKinfu Y, Poz MRD, Mercer H and Evans DB (2009). The health worker shortage in Africa: are enough physicians and nurses being trained? *Bulletin of the WHO*; 87:225-230.

ⁱⁱⁱThe Global Health Workforce Alliance (2008). *Scaling Up, Saving Lives Task Force for Scaling Up Education and Training for Health Workers Global*. Available online from [Accessed: 08/10/15]

^{iv} Crisp N, Gawanas B, Sharp I (2008). Training the health workforce: scaling up, saving lives. *Lancet*, 371: 689–91.

^vJoint Learning Initiative (2004). *Human Resources for Health: Overcoming the crisis*. Harvard University Press, Cambridge, MA.

^{vi} Adegoke AA (2014). Factsheets on midwives shortage in Jigawa, Kano, Katsina, Yobe and Zamfara states. W4H programme. Kano, Nigeria.

^{vii}Federal Republic of Nigeria (2008). *National Human Resources for Health Strategic Plan- 2008 to 2012*. 2008. Abuja, Nigeria.

^{viii} Martinez J (2006) *Implementing a sector wide approach in health: the case of Mozambique*. HLSP Institute, London, United Kingdom.

^{ix}Republic of Malawi Ministry of Health (2007) *Human resources/capacity development within the health sector*. Malawi.

^xMinistry of Health and Social Welfare (2007) *Human resources for health strategic plan*. United Republic of Tanzania.

^{xi}The Health and Education National Strategic Exchange (2012). *Review of Medical and Dental School Intakes in England*. A report commissioned jointly by the Department of Health and the Higher Education Funding Council for England.

^{xii}Wanless D. (2002). *Securing our future health: taking a long term view*. HM Treasury, London.

^{xiii}Salsberg E. (2008). *Addressing health care workforce issues for the future*. Position statement presented to the Committee on Health, Education, Labor and Pensions (HELP) of the United States Senate. Association of American Medical Colleges. Washington DC.

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