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Enhancing Human Resources for HIV/AIDS Services Delivery through Pharmacists Volunteer Scheme: A Case Report of Global HIV/AIDS Initiative Nigeria Project

Chamberlin Onuoha[1], Kenneth Anene Agu[1,*], Dorothy Oqua[1], Idoko Onuche Omeh[1], Muhammadu Alfa Isah[1], Nnenna Ekechukwu[1], Zainab Adeyanju[1], Rosalyn C King[2], Anthony K Wutoh[2]

[1]Howard University Pharmacists And Continuing Education (PACE) Center, Abuja, 900001, Nigeria
[2]Howard University College of Pharmacy, PACE Center, Washington DC, 20059, USA

Abstract **Introduction:** Inadequate pharmacy human resources have been a significant challenge faced in delivering public health interventions. In GHAIN project, the average pharmacist-patient ratio per clinic day was about 1:100. This had a negative effect on quality of care provided to patients. The project evolved a volunteer scheme aimed at mitigating the inadequacy of pharmacists amidst increasing workload. This article describes how the scheme was used to improve the human resource challenge in supported health facilities and the lessons learnt. **Methods:** The approach included continued advocacy and sensitization of pharmacists' groups, recruiting those pharmacists willing to serve, building their capacity and deploying them to hospitals of their choice. There were continual hands-on mentoring and documentation of services provided. The volunteer pharmacists provided pharmaceutical care and other HIV-related services at no cost to the patients and hospitals. **Results:** About 388 pharmacists in the scheme have offered services or are still offering services in 107 GHAIN-supported health facilities across the country. This increased the quality of pharmacy based services and decreased patients' waiting time, increased patients' rating of services received. The scheme built the capacity of many more pharmacists in the Nigeria. The deserving volunteers were honoured with various grades of certificates to recognize their contributions in accordance to the volunteer guideline. **Conclusion:** Volunteerism is a useful tool for managing the human resource challenges prevalent in health sector. However, the drop-out of the volunteers after six months was relatively high. This loss was often compensated by the continual engagement of new volunteer pharmacists.

Keywords Human Resources for Health, Pharmacy, Volunteer, Pharmacists, HIV/AIDS, Nigeria

1. Introduction

Gross under-funding and inadequate skilled medical personnel at the primary health care level are major challenges of the health sector in most developing countries including Nigeria[1]. It is worthy of note that a good number of these personnel are lured away to developed countries in search of fulfilling and lucrative positions as a result of inadequate infrastructure and poor compensation packages in this setting. In addition, there is internal labour migration that sees the few remaining health professionals moving to the telecommunication, petrochemical or the banking industry in search of better remuneration[1].

Most foreign countries or donor agencies supporting health reforms or health intervention projects in developing countries depend on the services of local or international not-for-profit organizations or partners to implement and monitor the interventions. They expect these implementing partners to manage the projects with local staffs and promote local human resources development and consequently sustainability. One of the common challenges faced by these partners is the acute shortage of the required skilled work force. This situation can significantly threaten the achievement of any project's objectives. Health reforms that aim at increasing efficiency, quality and users' satisfaction need to take into consideration human resource issues, because the health sector is labour-intensive and the performance of health systems depends on qualified and motivated health workers[2]. The United States Government (USG) support to Government of Nigeria to fight HIV/AIDS through the "Global HIV/AIDS initiative Nigeria" (GHAIN) project operated through the services of a consortium of four implementing partners. FHI360 was the lead partner and Howard University Pharmacists And Continuing Education (HU PACE) Center was a core partner responsible for

* Corresponding author:
agkenneth@gmail.com (Kenneth Anene Agu)
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strengthening pharmacists' capacity and pharmacy system for delivery of quality pharmaceutical care in HIV/AIDS, TBs and the installation of pharmacy best practices in supported project pharmacies. Other partners included AXIOS foundation and German Leprosy and Tuberculosis Relief Association. The Global HIV/AIDS Initiative Nigeria (GHAIN) was designed to support the Government of Nigeria in reducing the impact of HIV/AIDS and tuberculosis (TB) in select states by strengthening and expanding HIV/AIDS services. In many supported pharmacies, inadequate required pharmacy personnel significantly threatened the achievement of pharmacy related project objectives. An adequate pharmaceutical workforce is essential for an effective medicines supply chain and rational use of medicines in any country. The importance of an adequate pharmaceutical workforce is often overlooked, though the dire shortage of pharmaceutical workforce has profound implications for the health of the population.

Most countries in the Africa region have fewer than 12 health care providers per 10 000 inhabitants[3]. The Africa region bears more than 24% of the global burden of disease but has access to only 3% of the world's health workers and less than 1% of the world's financial resources, even when loans and grants from abroad are included[3]. Malaysia had pharmacist-population ratio of 1:6,207 in 2006[4]; while there were a total of 1,629 actively practicing pharmacists (1/14,400 population), 918 actively practising pharmacy technicians (1/25,600), and 1,642 medicine counter assistants (1/14,300) in Ghana[5, 6]. In Nigeria, there are currently 16,970 registered pharmacists to provide pharmaceutical services to a population of over 160 million [7]. The World Health Organization (2010) reported that Nigeria has one pharmacist per 10,000 of the population[8]. The pharmacist-population density varies between the different regions of the country. The report of health status indicators for 2009 in Federal Capital Territory of Nigeria showed a pharmacist-population ratio of 1:11,335[9]. In Borno state, the reported pharmacist-population ratio was 1:900,000 in 2010[10]. There are no gold standards for assessing the adequacy of the health workforce to address the health care needs of a given population. However, low density of health personnel usually suggests inadequate capacity to meet minimum coverage of essential services [11].

In GHAIN project, the average pharmacist-patient ratio per clinic day was about 1:100 without any kind of human resources support. This had a negative effect on pharmacist - patient contact time and consequently the quality of pharmaceutical care. Patients were not screened for drug therapy problems (including medication adherence related problems), required interventions were not provided at all times and there were inadequate documentation of pharmaceutical care services provided. In the face of the significant lack of pharmacists in most hospitals in Nigeria, there is reasonable number of pharmacists either practicing in the community as community pharmacists or working as medical/sales representatives for drug manufacturing or distribution companies. Most of these pharmacists without adequate experience in pharmaceutical care practice philosophy and HIV/AIDS care are however a highly motivated group in their desire to get involved in clinical care services. They represent a human resource pool that GHAIN tapped into for its volunteer scheme.

The objectives of the volunteer scheme included:

a) To improve the understaffing challenge at the pharmacies of GHAIN-assisted health facilities that threatened the quality of care and pharmaceutical services provided to patients receiving antiretroviral therapy.

b) To provide an opportunity for pharmacists to fulfil their social responsibilities as "men of honour" by serving some of the most marginalized individuals in society;

c) To provide an opportunity for pharmacists to gain invaluable experience in HIV/AIDS care and pharmaceutical care practice philosophy thereby strengthening pharmacy system in Nigeria

Designing the scheme in a manner that it could attract the already identified pool of Pharmacists became one significant task that HU PACE had to deliver on in order to ensure that GHAIN Pharmacy related objectives are realized. This article describes the implementation of the HU PACE Pharmacists Volunteer Scheme (HPVS), lessons learnt and how it improved the human resource challenge in supported health facilities.

2. Implementation of HU PACE Pharmacists Volunteer Scheme (HPVS)

2.1. Recruiting the Volunteers

The primary motivation that got many pharmacists into the scheme was the existing but unsatisfied quest for clinical care service provision to patients. Initially, the project staff relied on personal relationship cultivated over the years with colleagues to identify pharmacists with the passion and recruited them into the scheme. With time, pharmacy professional association and its technical groups in addition to Government institutions like the ministry of health and the hospital management boards were used as launch pads for sensitization of large body of pharmacists. More volunteers were recruited through this approach. Beyond the desire to offer clinical services to the patients, other motivators that got many pharmacists to join the scheme included promises like the provision of certificate of experience by the prestigious Howard University and a continuous education program in both HIV/AIDS care program and pharmaceutical care practice philosophy. The keeping of these promises had to a large extent drawn more pharmacists into the scheme.

2.2. Preparing the Volunteers for Service Provision

A variety of approaches had been used to prepare the volunteers for service delivery. Even though there is a

standard curriculum for capacity development, the zonal specifics determined how the curriculum was used to build the volunteers' capacity. Some zones organized either biweekly or monthly centralized training using the curriculum. In some other zones, the training materials were sent to Volunteers through electronic mails or they are invited to some centralized or facility based trainings organized for pharmacists from GHAIN-supported health facilities. In all the approaches, there were always onsite mentoring of the volunteers by both the project monitoring and evaluation pharmacists and the trained pharmacists from the health facilities. The capacity of volunteer pharmacists was also built in different aspects of the HIV/AIDS and related programmes such as prevention of mother-to-child transmission of HIV amongst others.

2.3. Service Provisions at Facilities and Necessary Documentation

In a labour intensive human service industry, the quality of service is intimately linked to the skill, motivation and commitment of the staff providing that service[12]. At the commencement of service provision by the volunteer, they are usually placed under the mentorship of the facility focal pharmacist or the project monitoring and evaluation pharmacist. Within this period, they develop the necessary skills for evaluating the prescription of antiretroviral drugs, other concomitant medicines and the HIV-positive patients for drug therapy problems, and maintain patients' medication profiles. They also learn how to resolve actual or potential drug therapy problems in HIV clinical care setting. They are provided opportunity for inter-professional interactions usually needed for prescription review with prescribers and other health providers. They also participated in the documentation and reporting of HIV care and pharmaceutical services provided using standard tools at the pharmacies of the supported health facilities. Over time, both the patients and the hospital staff end up accepting them as invaluable additional human resources for pharmacy; and their proposed reviews in patients' care also accepted. Beside the documentation of HIV care and pharmaceutical services to the patients, the volunteer also record their activities and the number of hours logged-on per day using the volunteers' logbook.

2.4. Remunerating the Volunteers

Essentially, the number one remuneration the volunteers get was the knowledge/experience they acquire backed by a certificate of experience from Howard University. Their cumulative logged in hours among other things is used to decide the type of certificate they are given at the end of their service (Gold, Silver and bronze certificates for cumulative log-in hours of 640, 400 and 200 hours respectively). Additionally, the project has, after taking into consideration the enormous sacrifices volunteers were making decided to provide some stipends to take care of their transportation. This was introduced about 2 years into the scheme without any form of coercion from the volunteers.

2.5. Operational Issues

a) Registration

All interested volunteers were required to complete the volunteer application form and submit detailed curriculum vitae and copies of the credentials including a valid license to practice as a pharmacist in Nigeria. Following the review of the application package and acceptance by the HPVS coordinator, the name and relevant details of the volunteer is entered into the HPVS register. The volunteer is then provided with the HPVS manual for their further information and guidance. The written informed consent was obtained from all participants at registration.

b) Log-In Hours

A volunteer, who reports to work at any healthcare facility at any time, is expected to log-in a minimum of two (2) hours at that facility. This is based on the fact that this is the minimum number of hours that any meaningful work can be done by anybody. The volunteer log-in hours are recorded using the volunteers' logbook placed at the health facilities. This is verified and signed-off on daily basis by the resident pharmacist at the health facility. This is collated weekly by the HPVS coordinator.

c) Heath Facilities where the volunteer can work

Each volunteer is advised to refer to the HPVS coordinator in the state to obtain information on available health facilities where volunteer work can be carried out.

d) Submission of individual monthly work plan

For smooth running of HIV treatment centres, each volunteer is expected to collect a work plan template, complete and submit an individual monthly work plan to the HPVS coordinator in his/her state of interest. The collection of individual monthly work plan is to be done on or before the 15th day of the month before the month for the activity. The completed individual monthly work plans are to be submitted on or before the 25th day of every month. This is to give the coordinator sufficient time to plan the posting of volunteers to facilities for the month ahead. The individual monthly work plan is transferred to the health facility specific volunteer monthly work plan and placed at the health facility for their information and use.

e) Making a change to the individual monthly work plan

A volunteer who finds out that he/she will be unable to cover the time indicated in his/her monthly work plan is expected to inform the coordinator of this development not less than one week before the scheduled time. However, in dire emergencies, a volunteer is expected to inform the coordinator of any development not less than 24 hours before his/her scheduled reporting time. Any change is communicated to the health facility by the HPVS coordinator.

f) Emergency call –up of volunteers

The scheme shall have a back-up list of volunteers who have indicated their interest and availability to be called up on short notice to cover a health facility in the event that the volunteer who is supposed to be there is unavoidably absent. A volunteer who covers time for another on short notice shall be doubly credited for the time covered. For example, a volunteer who covers another in a facility for 2 hours shall have an additional 2 hours automatically credited to him/her. Thus s/he earns a total of 4 hours.

g) Completing/disengaging from the scheme

A volunteer who has fully logged in his/her total number of hours for the category for which he/she indicated interest, shall be duly issued a certificate indicating that s/he has satisfactorily completed his/her volunteer work. However, a volunteer who wishes to disengage from the scheme before completing the number of hours for which he/she was initially enrolled shall receive certification for the guaranteed level he/she has attained at the time of exit.

On the other hand, a volunteer who wishes to put in more hours than s/he enrolled for after completing his/her hours can immediately begin to log in more hours. S/he is however expected to turn in the lower certificate before s/he can be issued a higher certificate after completion.

h) Transfer of hours

A volunteer who in the course of carrying out volunteer service is transferred to another state can transfer his/her hours to the new state if a similar scheme is on-going in that state. If not, he/she will be certified for the number of hours already put into the scheme.

i) Discipline

The HPVS coordinator reserves the right to discipline including the disengagement of any volunteer found wanting in the discharge of duties expected of a volunteer; or one who violates the provisions of the rules and regulations governing the HPVS, as may be determined from time to time.

j) Termination of engagement

Any volunteer who is absent from 60% of the regular training sessions or is 70% absent from the facilities in three months will be terminated from the scheme. By this provision therefore, state coordinators of the scheme are expected to conduct quarterly appraisal of the performance of volunteers.

3. Findings and Lessons Learned

Hitherto the belief has been that it is impossible to get health professionals in Nigeria to offer free services without any form of payment. The Howard University Pharmacists Volunteer Scheme (HPVS) started in the Federal Capital Territory of Nigeria in 2007 has grown in strength and now covers all the ten zones in the country where GHAIN operated. Cumulatively, 388 Pharmacists have offered services or are still offering services in the scheme in 107 facilities across the country.

The volunteer scheme was a very potent tool in managing work overload in the out-patient pharmacy. It was the game changer that improved the quality of pharmaceutical services delivery and documentation amidst the understaffed situation. The documentation of drug therapy problems (medication errors and adverse drug reactions) needed for review and subsequent modification of prescription habits experienced may never be possible and the quality they bring into patient care may be lost if there were no volunteers to assist in reducing the work load on the resident pharmacists.

In an environment where health workers' strike existed, it has been discovered that the presence of the volunteers provided the needed intervention that ensured that the patients' therapy were not interrupted. The volunteers as health providers that have no stake in the trade dispute between the staff of the health facility and the employer were often allowed to continue to provide uninterrupted care to the patients. The scheme elicited the interest of pharmacists from all sectors of the profession. Pharmacists from all technical areas of practice (community pharmacy, hospital pharmacy, pharmaceutical companies, and regulatory agencies) were participating in the scheme. Though some form of stipends to cover transportation and lunch is now provided to the volunteers, there was no such provision within the first 2 years of running the scheme. Some volunteers travelled as much as 400Km to the hard to reach facilities they cover. There was an evolution of a public-private partnership between Cross River State government in Nigeria and the HU PACE trained volunteers from private pharmacies under the auspices of Association of Community Pharmacists of Nigeria in the state. In this partnership, the volunteers provide pharmaceutical services in the state-owned health facilities without pharmacists or inadequate pharmacists while the state government financed the logistics cost of the volunteers on monthly basis. There has been continued advocacy to other states governments to facilitate the development of public-private partnerships of this nature for sustainability.

There may be greater contact time between the pharmacist and the patient during medication dispensing due to reduced workload on the resident pharmacist. This may improve the quality of care that patients received. However, this may require further evaluation to determine the specific impact of HPVS on the quality of care as this is outside the scope of this article. The gains from the volunteer scheme include but not limited to the patients' benefit of better service provision. With the knowledge, skills and experiences acquired, over 30 of the HPVS members have secured plum jobs with international and local organizations; while a lot more have improved their service delivery and thus increased the patronage in their community pharmacies.

The experience from the running the scheme revealed that young pharmacists were more drawn to the scheme than the older colleagues. This may be due to the fact that the scheme provided them with an opportunity to prepare for better practice and thus a better rewarding career. However, the rate of attrition from the scheme was 50% higher among

young volunteers. This may not be surprising as they are yet to settle down with a permanent job. It is in a way a positive development that allows for faster spread of the patient-centred pharmacy practice. The volunteer scheme has been a very useful and effective continuing education tool. Pharmacists are trained in not just HIV/AIDS care program but in pharmaceutical care practice that finds application in all other clinical areas. The practice of clinical pharmacy in Nigeria has benefited greatly from the scheme. As some of the volunteers have entered other projects or employments, it is believed that the cascade effect resulting from the application of their experience in GHAIN project to their new job will promote the patient centred practice, the focus of pharmaceutical care. It was observed that some volunteers continued logging in hours even after getting enough credit to get the most prestigious of the gold certificate (640 hours). Such experience tends to convey the impression that beyond the certificate, a number of the volunteers were driven by a desire to fulfil a social responsibility they feel they owe the society and those persons infected with HIV.

Another positive finding in the scheme is the continuity of care it promotes. A number of the patients discovered that the pharmacists providing services to them in the hospital were the same as those providing them services at the community in their private pharmacies. Such pharmacies became the preferred choices for the patients for continuity of their care. It eliminated for them the unwanted perceived stigmatization that may result from providing their medical and medication history to another pharmacist that does not know their HIV status.

The scheme had a few challenges. A number of the pharmacists that registered initially as volunteers (about 35%) ended up dropping out when it was discovered that it was a non-paying exercise. It has also been reported in some facilities that some striking workers tried to prevent volunteers from providing pharmaceutical services to HIV/AIDS patients as they believe that the continued service provision by the volunteers was making their strike action ineffective.

4. Conclusions

Volunteerism is a useful tool for managing the human resource challenges prevalent in the health sector in most developing countries. The scheme has shown that pharmacists in Nigeria are willing to offer free pharmaceutical care and HIV-related service to patients. However, the drop-out of the volunteers after six months was relatively high. This loss was often compensated by the continual engagement of new volunteer pharmacists. For a solicitation for volunteerism to get the desired response, it is necessary the whole package is designed to meet the specific knowledge and skills needs of the potential volunteer.

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