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EVOLUTION OF HIV TRAINING FOR ENHANCED CARE PROVISION IN KENYA: CHALLENGES AND OPPORTUNITIES

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ABSTRACT

***Background*: Healthcare worker capacity building efforts over the past decade have resulted in decentralisation of HIV prevention, care and treatment services**
***Objective*: To provide an overview of the evolution of HIV training in Kenya, from 2003 to date**
***Data sources*: Various Government of Kenya publications, policy documents and websites on training for HIV service delivery. Publications and websites of stakeholders, donors and partners as well. Journal articles, published peer reviewed literature, abstracts, websites and programme reports related to training for HIV treatment in Kenya and the region. Personal experiences of the authors who are trainers by mandate.**
***Data selection*: Data related to training for HIV treatment in Kenya and the region on websites and publications were scrutinised.**
***Data extraction*: All selected articles were read.**
***Data synthesis*: All the collected data together with the authors' experiences were used for this publication.**
***Conclusion:* Accelerated in-service capacity building efforts have contributed to the success of decentralisation of HIV services. Pre-service HIV training provides an opportunity for sustaining the gains made so far, in the face of declining donor funds. Implementation of the proposed harmonized HIV curriculum in the setting of devolved healthcare provides an opportunity for partnerships between stakeholders involved in pre-service and in-service HIV training to ensure sustainability.**

INTRODUCTION

Over the past decade, HIV service provision in Kenya has been accelerated under the leadership of National AIDS and STD Control Programme (NASCOP) with donor support. By the end of December 2010, over 430,000 Kenyans were on anti-retroviral therapy (ART), with a similar number receiving general non-ART clinical care in over 1200 service delivery sites (1) Launched in 2003, United States (US) President's Emergency Plan for AIDs Relief (PEPFAR) established and expanded access to HIV prevention care and treatment services in resource- limited settings (2) with Kenya being one of the beneficiaries of this novel initiative. Despite this success, there is still a continued demand for the development of human resource base to respond to the evolving field and a maturing HIV cohort that is treatment experienced.

EVOLUTION OF TRAINING

Evolution of HIV training in Kenya has three distinct phases which mirror the PEPFAR periods 2004-2008 (2), 2009-2013 (3), and post-2013.

The PEPFAR I period 2004-2008 was an emergency response targeted at providing initial ART to prolong lives. (2) The rapid scale up of antiretroviral treatment programmes required an emergency response for capacity building. The training phase (2003 – 2007) corresponding to this period was therefore characterised by aggressive in-service capacity building efforts to mitigate the effects of the epidemic. This enabled the development of clinical teams in many new sites to provide HIV prevention, care and treatment services using a public health approach. The cornerstones of this approach were standardised simplified treatment protocols

and decentralised service delivery (4).

Most healthcare workers graduating from Kenya's preservice training institutions at the turn of the century were not adequately trained on HIV/AIDS management despite the causative virus of AIDS having been described in 1984. A national survey carried out in 2005 found that only 33% of healthcare workers had been trained on AIDS patient management despite the fact that 80% said they cared for people living with HIV (5).

Since 2005, Ministry of Health with the support of development partners (US PEPFAR, WHO, UNAIDS, Global Fund) has invested considerable resources to train healthcare workers using in-service HIV trainings to support the accelerated increase in HIV service delivery. Over 40,000 healthcare workers have been trained (1).

Between 2009-2013, PEPFAR II has transitioned from an emergency response and has supported countries in taking leadership of responses to their HIV epidemics (3). This has seen more in-country and government engagement as well as integration of HIV services with broader global health programmes. During this period, PEPFAR's five-year strategy related to sustainability includes supporting the training and retention of more that 140,000 new healthcare workers to strengthen health systems (3). In Kenya, the training phase corresponding to this period (2007 – 2013) has seen more collaboration between pre-service and in-service institutions focusing on sustainability and ensuring that graduating healthcare workers have some training on HIV management before they join the workforce. PEPFAR supported the training or retraining of healthcare workers using the Ministry of Health Guidelines in the 2007- 2008 period (6). In 2010 PEPFAR through its country operational plan (COP) embarked on strengthening pr-eservice and in-service training, professional bodies structures and regulatory role for effective health practices (7).

The PEPFAR period beyond 2013 will be more integration and health system strengthening with broader interventions rather than disease specific. The corresponding training period beyond 2013 will require consolidation of the achievements made so far as well as sustainability strategies. HIV training will have to evolve in tandem with devolution of healthcare as provided for by the Constitution of Kenya 2010 (8).

FACTORS CONTRIBUTING TO THE EVOLUTION OF TRAINING

Several factors are responsible for shaping the evolution of HIV training in Kenya.

First, the model of care for HIV healthcare delivery determines the design of the national healthcare worker training program appropriate for the expansion of quality prevention, care and treatment services (9).

The current model of HIV care in Kenya is a "public health approach". Care is provided by primary healthcare providers in satellite facilities as a result of decentralisation of services. Decentralisation means "sharing the responsibility " of providing HIV prevention, care and treatment services at multiple levels within the existing Kenyan healthcare system, with the overall goal of expanding access to quality HIV service. The main aim of decentralisation was to enable rapid expansion of HIV services to health centres and dispensaries (satellite health facilities) from an existing central site such as a regional or district hospital. In line with the National Health Sector Strategic Plan- II (NHSSP - II) of 2005-2010, NASCOP developed the decentralisation model for the delivery of care (10).

Decentralisation informally began in November 2006 and was coordinated by the provincial and district health management teams. In 2008, the national guidelines on mentorship for HIV services in Kenya were developed to support the implementation of the national decentralization policy (11). These guidelines provided astandardised mentorship implementation framework for all HIV service providers with the ultimate aim of ensuring quality HIV service delivery at all levels of the healthcare system. The guidelines described the mentorship approach to be used at all levels. NASCOP with support of partners has implemented the mentorship framework.

The training design that has been used to support this public health approach for the past decade has been initial didactic (lectures)/ practicum training followed by ongoing mentorship in the form of off-site attachments to centres of excellence reinforced by site visits by a mentor (11). Over 40,000 HIV service

providers have had capacity building initiatives to date and services have been fully decentralised to more than 1200 service delivery points (1). Other approaches that have been used to support but not replace the implementation of national mentorship approach include call centres, hotlines, web-based learning and twinning.

Second, with initiation of treatment, there has been a concomitant improvement in quality of life with reduction in mortality. The cohort of patients living longer on chronic anti-retroviral therapy (ART) has presented new challenges such as long-term treatment toxicity, viral resistance and complex regimens which complicate their care. This has necessitated a shift in focus with integration of HIV services and the adoption of a chronic care model (CCM), which has been used successfully in chronic diseases like diabetes mellitus. The elements of this model include healthcare organization, community resources, self-management support, delivery system design, decision support and clinical information system. Several aspects of the chronic care model are incorporated into current HIV care delivery system.

With evolution of the Kenyan epidemic, training needs have evolved in keeping with a mature HIV cohort. The emergency response to training while useful at the onset to meet the needs of the "public health approach" is currently not adequate. The mature cohort of treatment-experienced patients require additional skills in the healthcare workers who may have initially been trained to respond to the epidemic using standardized simplified treatment protocols.

Third, there has been a tremendous increase in the number of pre-service institutions training healthcare workers. Whereas significant effort has been made towards mainstreaming HIV training within all these pre-service institutions responsible for training healthcare workers, the HIV content of their training curricula and the adequacy in preparing graduates to offer HIV services after graduation needs to be enhanced, enforced and ensured through set minimum standards in the core curricula.

Fourth, promulgation of the Constitution of Kenya in August 2010 has resulted in significant devolution of healthcare services to the county governments (8) aimed at addressing persistent inequalities in the distribution of health facilities and human resources for health (HRH) between geographical locations and economic strata.

The national programme, NASCOP, will be responsible for policy and guideline development, coordination and management as well as monitoring and evaluation. The county governments will be responsible for implementation of decentralized HIV prevention, care and treatment services, capacity building and continuous mentorship of healthcare workers to ensure provision of quality service delivery (1).

HIV service delivery at three out of the four-tiered healthcare delivery system as well as capacity building of in-service healthcare workers components will be largely the responsibility of the county governments (1).

Pre-service training of healthcare workers at the Kenya Medical Training Colleges (KMTCs) and public universities is currently offered at teaching and referral hospitals. These hospitals fall under the mandate of the national government. Devolution of HIV services and the concomitant training may present a challenge as well as an opportunity for HIV training and in future will shape the training landscape beyond 2013. Decentralization of in-service HIV training to the county government requires concomitant robust training systems within the counties.

Finally, the HIV programme which has largely been donor-funded for the past decade is facing decline in the funds following the worldwide financial crisis experienced in the recent past. Training, which has been part and parcel of capacity building efforts to support decentralisation of high quality HIV services may be adversely affected and therefore requires innovative efforts to ensure sustainability in future.

IMPACT OF HIV TRAINING

Several healthcare workers have been trained and this has resulted in increased access to care by patients through decentralisation.. Patients are initiating care and rates of retention in care are improving. In 2011, ART reached 83% of all adults who were medically eligible (12).

There has been a notable reduction in AIDS-related deaths. As of December 2011, ART had averted 270,000 deaths in Kenya (12).

Progress towards achievement of the millenium development goal (MDG) 6 to combat HIV / AIDS and other diseases is currently on target with reduction of HIV prevalence among adults 15 -64 years from 7.2% (13) to 5.6% (14) as a result of implementation of effective evidenced- based prevention strategies.

National guidelines for HIV have been developed and revised regularly to meet international standards. These guidelines are the cornerstones of the public health approach.

HIV is now a chronic illness just like diabetes and hypertension and integration of services together with the chronic care model will ensure sustainability of high quality services for the patients.

CHALLENGES

Despite these enormous achievements, some challenges exist in in-service training that may adversely impact on the future of training (15).

First, in-service HIV training is expensive and often depends on donor support hence not sustainable in the long run. This challenge compounded by declining donor funding for HIV training may retard the gains achieved so far unless innovative training approaches are found that are affordable, acceptable, accessible and sustainable.

Second, off-site training/attachment designed to provide the participant with hands-on experience at a centre of excellence away from the work-station creates a human resource crisis due to absence of participants from work.

An example of an innovative approach to in-service training with the aim of improving capacity of healthcare workers in monitoring and evaluation and continuous quality improvement is the modular work-based training programme (16). This training tries to overcome some of the challenges highlighted previously. It enables the trainees to acquire practical competencies hence building institutional capacity through hands-on training and providing solutions to priority institutional/ organizational work-related challenges. The advantage of this approach is that the trainees are able to return to the workplace to apply the new skills following a face-to-face session thereby minimising the time spent away from the work-station. This approach may be adopted going forward for in-service trainings.

Third, there is a high attrition rate of trained healthcare workers through transfers with unskilled/ untrained replacements. Significant attrition in the number of healthcare workers in the public sector exists in two main forms; urban-urban migration (internal migration) as well as 'brain drain' to wealthier countries (external migration) This has been attributed to a number of reasons such as limited possibilities for training, lack of necessary equipment, inadequate remuneration and benefit and sufficient recognition for individual performance (17). Retention of healthcare workers within the county government remains a challenge not only for the devolved system but even prior to the devolution. County governments therefore need to put in place incentives to attract, retain and motivate healthcare workers so as to meet their population health needs.

Finally, poor management of training means access to training opportunities by those who require training most urgently is denied or not prioritised. Emerging complications in the mature cohort requires complex trainings to empower the healthcare workers to respond effectively.

Availability of these trainings within the counties and access to the trainings by the specific healthcare workers will require collaborative efforts between the national and county governments particularly if these trainings are found in the tertiary and referral hospitals. Certain counties may require specific trainings due to regionalisation of the HIV epidemic.

OPPORTUNITIES FOR HIV TRAINING

There are several opportunities for sustainable HIV training to enhance care.

Universal access to HIV training by all pre-service trainees is one such opportunity that has not yet been fully realised. Pre-service training avoids workplace absenteeism and is much cheaper compared to in-service training. Strengthening pre-service training is a less expensive, fairly easy to implement and sustainable way to ensure access to HIV training for all pre-service healthcare worker graduates, preparing them for service. Regulatory bodies, which are the custodians of core curricula for the different cadres of healthcare workers, should incorporate mandatory HIV competencies to be taught and examined before graduation.

Strengthening HIV training during internship will ensure the necessary competencies imparted during pre-service training are reinforced and practiced at internship by way of clerkship logbooks within the main rotations. This will provide a training continuum even after graduation, integrating theory with practice.

Within in-service, innovative approaches such as e-learning platforms should be utilised to reach more practicing healthcare workers with clear incentives for healthcare workers who complete the specific trainings.

The regulatory bodies may enhance and decentralise HIV training through working with healthcare worker professional associations to provide mandatory and ongoing continuous professional development (CPD) in the field of HIV. These can be organized regionally or at the counties.
Regional specific incentives or initiatives to attract, motivate and retain healthcare workers in the counties should be actively developed in conjunction with all the necessary stakeholders.

THE FUTURE OF TRAINING

The national programme, NASCOP and its partners, have proposed a new, harmonised HIV curriculum. This curriculum aims to address inefficiency of uncoordinated off-site training and limited mentoring for healthcare workers. Four innovative approaches namely self- learning, off-site placement, on-going clinical practice and on-going mentoring, are used to build healthcare worker cluster-specific skills. The off-site placement training occurs at a regional training centre and involves group learning, face-to-face interactions with an experienced mentor and case discussions (18).

In comparison to the previous training design (didactic lectures /practicum), the new harmonised curriculum (and its mode of delivery) was found to be cost effective due to the significantly reduced number of days spent by the trainees at the off-site placement sites.

The aim of this publication is to highlight the significant gains made in mitigating the HIV epidemic in Kenya through decentralisation of HIV services facilitated by accelerated in-service capacity building efforts. Pre-service HIV training provides an opportunity for sustaining the gains made so far, in the face of declining donor funds. Implementation of the proposed harmonised HIV curriculum in the setting of devolved healthcare provides an opportunity for partnerships between stakeholders involved in pre-service and in-service HIV training to ensure sustainability.

REFERENCES

1. NASCOP website. http://www.nascop.or.ke
2. US PEPFAR. Engendering bold leadership: The President'sEmergency Plan for AIDS Relief First Annual Report to Congress. http://www.state.gov/documents/organization/43885.pdf (accessed April 13, 2014)
3. US PEPFAR. The U.S. President's Emergency Plan for AIDS Relief Five-Year Strategy. http://www.pepfar.gov/document/organization/133035.pdf (accessed April 13, 2014)
4. Gilks, C.F., Crowley, S., Ekpini, R. *et al* The WHO public-health approach to antiretroviral treatment against HIV in resource-limited settings. *Lancet* . 2006; **368**: 505-510.
5. NASCOP. Preparedness for HIV/AIDS service delivery 2005 Kenya Health-worker Survey Nairobi. NASCOP 2006.
6. PEPFAR. 2008 Country Profile: Kenya. http://www. 2006-2009. pepfar.gov/document/organization/81664.pdf.
7. PEPFAR. Kenya operational plan report FY 2010. http:// www.pepfar.gov/documents/organization/145725.pdf.
8. The Constitution of Kenya 2010.
9. McCarthy, E. A., O'Brien, M.E., Rodriguez, W.R. Training and HIV- treatment scale-up: Establishing an implementation Research Agenda. *PLos Med* .2006; **3**: 989-993.
10. Ministry of Health HIV/AIDS Decentralization guideline, NASCOP, 2009.
11. Ministry of Medical Services National Guidelines on Mentorship for HIV Services in Kenya, 2008.
12. NACC. The Kenya AIDS epidemic update 2011. http://www.unaids.org.
13. NASCOP. Kenya AIDS Indicator Survey 2007. Final report. September 2009.
14. NASCOP. Kenya AIDS Indicator Survey 2012. Preliminary Report.
15. Renggli, V., De Ryck, I., Jacob, S. *et al*. HIV education for health-care professionals in high prevalence countries: time to integrate a pre-service approach into training . *The Lancet*. 2008; **372**: 341-343.
16. Matovu, J. K. B., Wanyenze, R. K., Mawemuko, S. *et al*. Strengthening health workforce capacity through work-based training. *BMC Int Health and Human Rights*. 2013, **13**: 8.
17. MOPHS/MOMS. National Human Resources for Health Strategic Plan 2009-2012. April 2009. http://www.nationalpalnningcycles.org)
18. Dutta, A., Mukui, I., Iyer, P. and Mwai, D. Training and mentoring clinical health-workers in Kenya. Efficiency gained from the proposed HIV curriculum. Health Policy Project. October 2012. http://www.healthpolicyproject.com.

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