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Original Research Article

Knowing your HIV/AIDS response: A pilot test of a new service mapping toolkit in Ghana

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ABSTRACT

Background: "Knowing" an HIV response in a country is a complex undertaking. This requires knowing what actions key implementers in all sectors (government, non-government, public, and private) are deploying; what populations they serve; what the reach of these programs are, amongst others.
Aim: We aimed to pilot test a set of newly developed data collection tools referred to as the Know Your Response (KYR) toolkit in Ghana. The KYR toolkit addresses three key concepts that are critical for an improved understanding of the HIV-prevention response in terms of location, scale, and needs.
Materials and methods: Data were collected on HIV programming being undertaken in each of the 16 metropolitan, municipal, and district assemblies (MMDAs) in the Greater Accra region of Ghana. Analysis and dissemination of data includes the generation of univariate and bivariate tabulations as well as production of maps of HIV services using Geographic Information System (GIS) technology.
Results: The toolkit was successful in collecting a great deal of data that describe, at the district level, who is working in HIV prevention, what interventions they are providing, where these interventions are being provided, and to whom the interventions are being targeted. The data generated allows for mapping and

Abbreviations: AIDS, Acquired Immunodeficiency Syndrome; ARCGIS, Geographic Mapping Software; ARVs, antiretroviral medications; CBOs, community-based organizations; CCM, Country Coordinating Mechanism; CEO, Chief Executive Officer; CERSGIS, Centre for Remote Sensing and Geographic Information Services; DHS, Demographic and Health Survey; eTWG, Expanded Technical Working Group; FGDs, focus group discussions; FSW, female sex worker; GAC, Ghana AIDS Commission; GIS, Geographic Information System; HIV, Human Immune Deficiency Virus; IBBSS, Integrated Biological, Behavioral Surveillance Survey; KYER, Know Your Epidemic, Know Your Response; KYR, Know Your HIV Response; MARP, Most At Risk Population; MICS, Multi-Indicator Cluster Survey; MMDAs, metropolitan, municipal, and district assemblies; MoE, Ministry of Education; MoFA, Ministry of Food and Agriculture; MOH, Ministry of Health; MoI, Ministry of Information; MoWAC, Ministry of Women and Children Affairs; MoYS, Ministry of Youth and Sports; MSM, men who have sex with men; NACP, National AIDS and STIs Control Programme; NGOs, Non-Governmental Organizations; NSP, national strategic plan; OP, Operational Plan; PEPFAR, The United States President's Emergency Plan for AIDS Relief; PLHIV, people living with HIV; PMTCT, Prevention of Mother-to-Child Transmission of HIV; SI, strategic information; TB, tuberculosis; TWG, Technical Working Group; UG-SPH, University of Ghana School of Public Health; UNAIDS, The Joint United Nations Programme on HIV/AIDS; USAID, United States Agency for International Development.

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understanding of the scope and scale of the HIV-prevention response at the district level. It also identifies challenges and opportunities for scaling the exercise nationally.
Conclusions: The study provides information needed to guide prioritization, and/or adjustment of the national HIV-prevention programs and interventions being carried out in the Greater Accra region.

1. Introduction

As knowledge on the global HIV response continues to accumulate both globally and locally, there is general awareness that individual countries must prioritize among many interventions in order to use their resources most effectively to combat the epidemic. These prioritizations take into account country specific epidemiological and social contexts. The ''Know Your Epidemic, Know Your Response'' (KYER) concept has emerged in the global HIV community to describe this process of matching a national response to the local disease context [1].

In the context of HIV, ''Knowing'' an HIV response in a country is a complex undertaking. This effort requires knowing to the level of a district (or similar local administrative unit) what key implementers in all sectors (government, non-government, public, and private) are responding to HIV, what populations they serve, what is the reach of these programs, and what specific types of interventions they are implementing. Lessons on the utility of KYER are available. Sgaier et al. [2] argue that India is an example of how 'Know Your Epidemic, Know Your Response' message can effectively be implemented at scale and presents important lessons to help other countries design their evidence generation systems. The KYER has enabled India to focus on the right geographical areas, populations and solution levers and to fine tune and decentralize its response over time. Hankins and de Zalduondo [3] unpack how combination prevention, which is anchored in 'Know Your Epidemic' provides a deeper understanding of effective HIV prevention. They specifically note that ability to provide estimates of where the next 1000 infections will occur and 'know your response' analyses of resource allocation and programming gaps, tremendously facilitates realignment of program priorities for maximum effect.

Lazarus et al. [4] write about the KYER in Asia and provide an overview of the HIV epidemic in Asia, the context within which the epidemic is evolving, and the key actions to address the challenges faced by countries and risk groups. They note that high-impact programs must be amongst others targeted at those in need, and that KYER, helps to do that.

Indeed, the global research and practice community has learnt a lot over the past 35 years that, evidence-based resource allocation increases the efficiency and effectiveness of national programs [5]. Although data collection efforts have been extensive globally, too few have been able to embody the KYER [6]. We pilot tested a set of newly developed data collection tools (referred to as the Know your Response or KYR toolkit) in the Greater Accra region of Ghana at the request of the Government of Ghana. The toolkit facilitated data collection on HIV programming being undertaken in the 16 metropolitan, municipal, and district assemblies (MMDAs) in the Greater Accra region of Ghana. As a prevention tool, the KYR toolkit addresses three key concepts that are critical for an improved understanding of the HIV-prevention response (location, scale, and needs). It also helps provide answers to the following pertinent questions: Who is doing what and where? Who is being reached by HIV-prevention programs? How many are being reached? Are the needs of key populations at higher risk of HIV exposure being met in settings where they are located?

2. Ghana National Response to HIV and AIDS

In the absence of, or lack of appreciation of these evidences then, the HIV epidemic in Ghana had been for close to a decade recognized as a critical public health issue. Ghana's response to HIV in the late 1980s was to manage it as yet another disease; this was directed by Ministry of Health (MoH). This response led to the establishment of the National AIDS Control Programme (NACP) in 1987. Thirteen years later, the complex nature of the epidemic compelled Ghana to adopt a multi-sectoral approach and a decentralized coordination system for its HIV response. This led to the establishment of the Ghana AIDS Commission (GAC) in 2000. The GAC spearheaded the development of the National Strategic Framework (NSF) I to guide the National Response from 2003–2005; and a NSF II, which guided Ghana's response from 2006–2010 [7]. Ghana's response over the years has centered on three thematic areas: prevention, treatment and care, and mitigation of socio-economic effects of HIV. Currently, Ghana has developed a very ambitious national strategic plan (NSP) for HIV prevention for the period 2011–2015. A national HIV and AIDS policy developed in 2004 and revised in 2012 provides overall guidance to the implementation of the national response.

To date, quite a lot is known about HIV and Ghana's response to HIV. The HIV epidemic in Ghana continues to be a generalized one. However, the annual HIV sentinel surveillance reports suggest a downward trend in HIV prevalence: from a 3.6% in 2003, it saw a marginal reduction to 3.2% in 2006, a further reduction to 2.2% in 2008. The prevalence in years 2010 and 2011 was 2.0%; this has since reduced to 1.5% in 2012 [8] and 1.3% in 2013 [9]. While the overall HIV prevalence rate seems to be stabilizing in Ghana, there are considerable variations by geographic region, and urban–rural residence. Also among some groups, the prevalence is much higher. For example, the 2011 Integrated Biological and Behavioural Surveillance Survey (IBBSS) reported that 11.1% (Roamers [6.6%], Seaters [21.4%]) of female sex workers (FSW) were living with HIV [10]. A multi-country analysis done in March 2010 by the Joint United Nations Programme on HIV/AIDS (UNAIDS) and the World Bank covering the West African sub-region indicated that 38% of new HIV infections in Ghana were attributed to these groups and their partners [11]. This, and other policy papers by the UNAIDS underscore the need to link these high risk and marginalized populations with services in order to address the concentrated nature of the epidemic in Ghana.

Even though, Ghana has managed to create universal awareness about HIV, and the rising prevalence is contained and is on a downward trend, significant challenges and gaps remain. Such challenges include the lack of data on what HIV actions are happening at the district and sub-district levels. Systematically documenting the various response activities, outcomes, and challenges, through the piloting and adoption of the KYR is therefore worthwhile exercise. This paper presents a district level mapping effort of the directory of HIV Prevention Program Implementers, the specific types of HIV interventions program implementers deploy, the various populations served by program implementers. The paper further maps the kind and distribution of key population-specific interventions by MMDA.

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