

Full Length Research Paper

Bottleneck analysis of challenges facing sexual and reproductive health and human immunodeficiency virus (HIV) services integration in Southwestern Nigeria

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Services integration ensures easy access to multiple services in a cost effective way. Integration of sexual and reproductive health (SRH) and human immunodeficiency virus (HIV) services is poor in Nigeria. Removing bottlenecks to successful integration has been of high programmatic priority most especially in resource poor settings. This study determined bottlenecks to effective SRH/HIV services integration in Osun State in Southwestern Nigeria. This study combined descriptive cross sectional and retrospective study designs by collecting validated routine data on SRH/HIV integration from 100 randomly selected health care facilities. Research instruments for descriptive data collection were semi structured self administered questionnaires for health care workers, and exit interviews for patients using a designed checklist. Data was analyzed using a combination of Statistical Package for Social Sciences (SPSS) and Excel software(s). The study found that only 31.9% of the health facilities had been trained on SRH/HIV integration, 42.1% of the health facilities were providing services within reach of the communities served, while 32.4% said they regularly complete the integrative referral process. Using the World Bank model of the bottlenecks analysis (BNA) process, three major bottlenecks to SRH/HIV services integration were determined. These include inadequate capacity building and poor access to SRH/HIV integrated services on the supply side. On the demand side, the major bottleneck identified was poor continuous utilization of services. Commodity challenges, poor initial utilization and poor quality of services were not among the leading bottlenecks identified. Several reasons were given as causes of these bottlenecks. Circumventing identified bottlenecks would strengthen SRH/HIV integration in order for patients to benefit from the two services simultaneously. All efforts should be geared towards removing these evidence based bottlenecks.

Key words: Sexual and reproductive health/ human immunodeficiency virus (SRH/HIV) integration, bottlenecks analysis (BNA), health facilities, Osun State, Nigeria.

INTRODUCTION

In resource poor settings such as Nigeria, it is logical to integrate the provision of reproductive health and

HIV/AIDS services in order to improve access of patients to multiple services, thereby improving the alarming

Reproductive Health (RH) and Human Immunodeficiency Virus (HIV) infection services indices. Further evidence for services integration was the fact that Nigeria has low contraceptive prevalence rates, high unmet needs for contraception (National Population Commission [NPC], 2009) and a relatively high national HIV prevalence put at 4.1% (Federal Ministry of Health [FMOH], 2010). According to the World Health Organization (WHO, 2004), integration is the combination of different kinds of services or operational programmes to ensure maximized collective outcomes. Clients requiring both services require common needs and resources from the health system, therefore such services can be provided under same roof, by the same health care providers under the same roof and during same working hours. Unfortunately, SRH/HIV integration is poor in Nigeria, and SRH and HIV services are often provided in a parallel way in most health systems (NPC, 2009).

The integration of Family Planning (FP) and HIV services is an evidence-based approach to averting unintended pregnancies among HIV positive clients (Kennedy et al., 2004). Basically, there are three approaches to SRH/HIV integration in Nigeria. These include the on-site (e.g. one-stop shop or "comprehensive services approach"), the off-site approach in which RH-HIV services are offered outside the facility through facilitated referral and the mixed-model approach in which some services are initiated in one facility, but are provided in another, or some services are offered in one facility, while others are offered in a different facility. Thus, expanding the scope of SRH/HIV integration would further meet the sexual and reproductive health needs of people living with HIV and vice versa.

Several constraints within and outside the health sector may have undermined the objectives of SRH/HIV integration, and reduced the pace and quality of services. Most integration services in Nigeria were geared towards family planning (FP/HIV integration), thus leaving out the other components of SRH. Most integration efforts are donor driven leaving sustainability of such programmes and services as a big issue. Others include poor community involvement, poor referral systems, poor capacity building and poor infrastructure in terms of clinic space, integration tools, basic equipments and supplies. Vertical programmes with separate procurement lines and information management system were also possible challenges.

In order to circumvent these challenges facing SRH/HIV service integration in Nigeria, FMOH recommended the creation of an enabling environment for integrated RH/HIV service at all levels of health care, improvement in the capacity of Health Care Workers (HCWs) to provide integrated RH and HIV services, and

and improved provision and uptake of SRH/HIV integration services in project sites. Health care service providers have prominent roles to play in achieving these objectives of SRH/HIV integration (The Guttmacher Institute, 2004; Bharat et al., 2007). This study determined data driven bottleneck analysis of the challenges facing SRH/HIV integration in Osun State in Southwestern Nigeria.

MATERIALS AND METHODS

Study area

Osun State is one of the states in Southwestern Nigeria with a population of about 3.8 million (NPC, 2006). There are 30 Local Government Areas (LGAs) shared among the 3 senatorial districts. There are 2 teaching hospitals, nine general and numerous public and private health facilities providing Primary Health Care (PHC) services in the state. In Osun State like other states in Nigeria, contraceptive prevalence rate is low while maternal mortality is unacceptably high (Harrison, 2009). International donors and local Non Governmental Organizations (NGOs) drive the little efforts at SRH/HIV integration. HIV prevalence in the state stands at 2.7%, a bit lower than the national average put at 4.1% (FMOH, 2010).

Study design

Two study designs were employed in this study. The first was a retrospective study of bottleneck analysis of challenges to integration of SRH and HIV services in Osun State. The second was a descriptive cross sectional study carried out for some specific objectives.

Study population

Study population includes health facilities, health care service providers, and clients from 15 to 49 years accessing integrated services. Private health facilities and their health care providers were excluded from this study.

Ethical consideration

Ethical consideration permission to carry out this study was obtained from UNIOSUN Health Research Ethics Committee after a successful application. Permission was also obtained from health facility managers and project site directors. Written informed consent was obtained from all clients and health care workers who took part in the client exit interviews and health facility surveys, respectively.

Sampling

Retrospective data review was done for a period between January and December, 2013. For the selection of PHC facilities for the assessment of integration services, a multistage sampling method was adopted. In the first stage, 2 out of 3 Senatorial districts were

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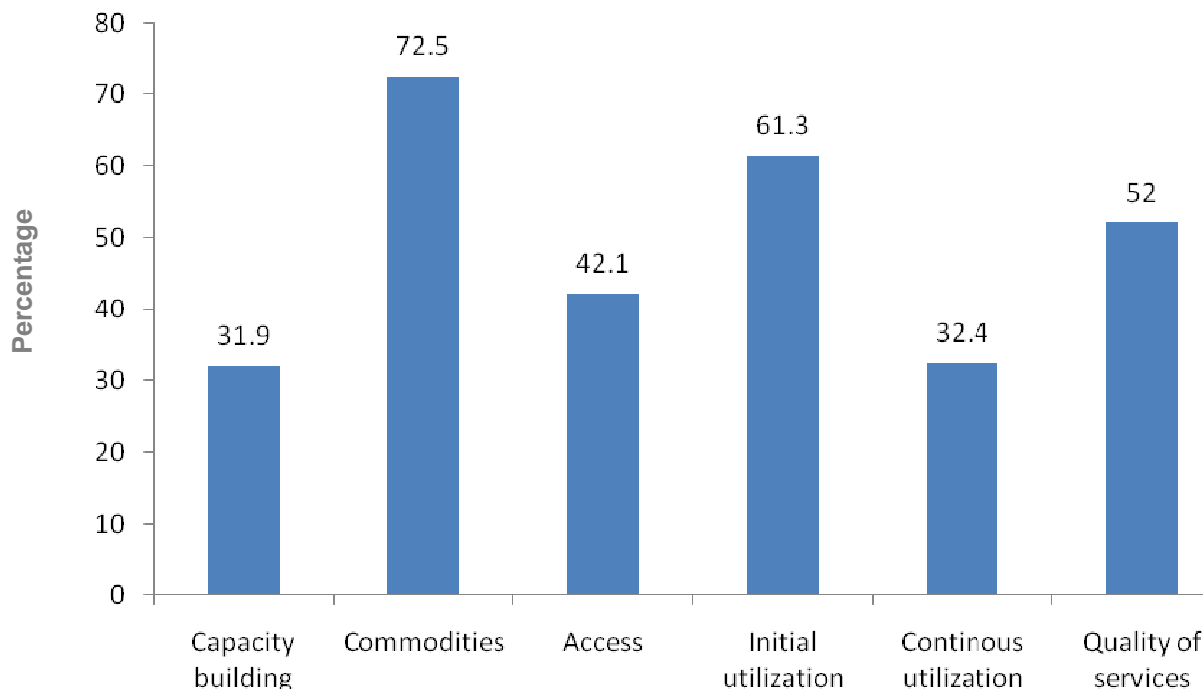


Figure 1. Bottleneck analysis of the one stop shop model/approach to SRH/HIV services integration.

selected using simple random sampling employing simple balloting. In stage II and with 10 LGAs per district, a total of 7 LGAs were selected per district using simple random sampling, making a total of 14 LGAs. Based on each LGA having ten PHCs, a list of all SRH/HIV integrating health facilities were obtained from the State Ministry of Health in Stage III. A total of 90 PHCs were selected randomly from urban to rural health care facilities in the ratio of 2:1.

While all the nine general or secondary level care hospitals were recruited into the study, one out of the two teaching hospitals in the state were randomly selected employing simple balloting. All these ten facilities were recruited into the study to make a total of 100 health care facilities when added to the PHCs. For clients, exit interviews were conducted for any 2 purposively selected clients accessing services within each of the selected health facility on the day of visit.

Data collection

Retrospective data were collected to showcase the bottlenecks. This includes aggregated and validated routine data from registers, monthly summary forms and established data bases such as the NHMIS and NNRIMS at state level. The LGAs monitoring and evaluation officers were actively involved in data synthesis and collection. In situation where data is unavailable, these officers assisted in getting back to the source documents and recorded required data accordingly. Data collectors were trained on the various data elements considered, data synthesis and subsequent management. Some data were obtained by carrying out field specific descriptive cross sectional surveys using semi structured self administered and pre-tested questionnaire among Health Care Workers (HCWs). Using a checklist containing some validated open and close ended questions, client exit interviews were conducted by trained interviewers in order to have relevant data supporting the sub bottlenecks analysis. The client exit questionnaire was translated into Yoruba language and back translated into English to

ensure further validity before use.

Study variables

The World Bank/UNICEF Bottleneck Analysis model was employed in getting data for the BNA process. Data related to SRH most especially FP and that of HIV services and integration efforts were collected. Data were collected under six broad headings, namely, capacity building, commodities, access to services, initial and continuous utilization and quality of services.

Data management

Validated health facility data collected for the designated period were analyzed using the Excel software after double entry and cleaning of data, in order to ensure validity of data. Survey data was analyzed using the Statistical Package for Social Sciences (SPSS) software version 17.0. Descriptive analysis was carried out mainly in form of tables and charts to explain some of the reasons why the bottlenecks exist within and outside the health systems.

RESULTS

Figure 1 showed the BNA of challenges facing SRH/HIV integration at the comprehensive or one stop model facilities. On the supply side, only 31.9% of facilities had been trained on SRH/HIV integration, 72.5% of the facilities had no commodity stock-outs in the last 3 months, while 42.1% of the health facilities were providing services within reach of the communities served. On the demand side, initial utilization of FP and/or HIV services

Table 1. Breakdown of identified bottlenecks to integration efforts among selected health facilities in Osun State.

Variable	Sub-bottlenecks	Proportion (%)
	Capacity building	
	Staff formally trained on SRH/HIV integration	31.9
	Trained on commodity logistics	11.1
	Health Facility (HF) staff ad step down trainings	8.4
	Had on the job training/refresher trainings	23.7
	Regular mentoring by MoH staff	13.6
Supply side	Regular mentoring from implementing partners	43.1
	Trainings were essentially donor driven(among the trained)	75.8
	Access to services	
	Proportion of HF providing integrated services	42.1
	Proportion of communities known to be providing services	2.4
	Referrals services available	65.8
	Adequate distance of HFs to reported catchment areas	76.5
	Continuous utilization	
	Proportion of HF clients accessing integrated services	28.1
	Proportion of referrals completed	33.1
	Client satisfaction	72.0
Demand side	Facility CYPR adequate (calculated for dual protection)	38.4
	Number of community involvement	2.8
	Adequate infrastructure(space, equipments)	34.6
	Adequate number of harmonized M and E tools	8.7

took place among 61.3% of the clients. Continuous utilization or completeness of FP services by HIV clients and vice versa in integrated manner took place among 32.4% of the clients, while quality of service provision was accessed to be high among 52.0% of the health facilities. Thus BNA revealed three important bottlenecks to SRH/HIV services integration. These include inadequate training or capacity and poor access to services bottlenecks on the supply side, while poor continuous utilization constitutes barrier on the demand side.

Table 1 showed further breakdown of identified bottlenecks. Under capacity building, only 31.9% of the health care facilities had their staff formally trained on SRH/HIV integration, 11.1% were trained on FP/HIV commodity logistics, 8.4% had step down trainings, 23.7% had on the job refresher training, 13.6% received regular onsite mentoring by Ministry of Health staff while 43.1% of facilities said that programme mentoring activities were essentially done by implementing partners or NGOs. Among those who were formally trained, 75.8% said trainings were essentially donor driven. In terms of access to services, only 42.1% of the facilities were providing integrated services, only 2.4% of them received community inputs, 65.8% had referral services available while 76.5% said that they were adequately sited in terms

of distance of health facilities to reported catchment areas.

For continuous utilization of services, only 28.1% of the facilities had their clients accessing integrated services, 33.1% said they usually have completed referrals, and 72.0% felt that their clients were satisfied with their services. Calculated Couple Year Protection Rate (CYPR) for condoms was adequate among 38.4% of facilities, 2.8% reported community involvement in integration programmes, 34.6% were observed to have adequate infrastructure in terms of space and equipments while only 8.7% had adequate stock of harmonized monitoring and evaluation tools for reporting.

DISCUSSION

Only about one third of the health facilities had their staff trained on SRH/HIV integration. This inadequate capacity building trend supports findings from several other studies (FMoH, 2007; Uneke et al., 2007). Training is an essential component of work schedule of staff as it keeps them abreast and afresh of both existing and new knowledge in their areas of expertise and general health knowledge. It can also be a source of motivation for staff

so they could put in more efforts (Adebimpe et al., 2013). Training could be formal, on the job, step down, refresher or even mentoring and supervision by experts or superior colleagues. Training would afford these staff the opportunity of carrying out better integration activities in their health care facilities. However mentoring pattern described as non significant by respondents in this study supports findings from the Nigerian Mid Term Evaluation (MTE) of SRH/HIV integration efforts (FMoH, 2007), this may be because most mentoring activities are donor dependent with staff of NGOs coming around to give mentoring services. Likewise, three quarter of the respondents said that the formal training they had was also donor driven. However, training on commodity logistics is grossly deficient among studied facilities; this could lead to poor commodity acquisition and inventory management towards contraceptive commodity security in their facilities.

Stock-out of FP and HIV programmes commodities was not an issue in many of the health care facilities, and this supports the Nigerian MTE (FMoH, 2007). This is because FP programmes in Nigeria receives a lot of funding and assistance from United Nations, bilateral and other donor agencies. This is more pronounced for the facilities that have been using Government Contraceptives Logistics Management System (CLMS) to procure and manage their contraceptive commodities.

Only two-fifths of the facilities were providing services within reach of the communities served. This trend supports other studies (Ajala et al., 2005; Jaro and Ibrahim, 2012). Geographical accessibility within maximum of 5 km reach of people served by a health facility is important and central to geographical accessibility. The situation is worsened in areas with bad roads and difficult terrain, which may hamper accessibility to SRH/HIV services and follow up. This may have been the situation in this study despite claims by three-quarter of the facilities saying that they were adequately sited in terms of distance of health facilities to reported catchment areas but only two-fifths were providing integrated SRH/HIV services.

Continuous utilization or completeness of FP services by HIV clients and vice versa in integrated manner took place among one third of clients in the midst of high quality services. About one third said they usually have completed referrals, with poor community involvement in integration programmes. In some other studies (Kambarami et al., 2000; Jahn and De Brouwere, 2001), referral was reported but completion of referral was inadequate. The importance of a two way referral system cannot be over emphasized because it ensures adequate service provision as well as make tracking possible. Many of our clinics are stigmatizing HIV positive clients such as the concept of Antiretroviral Therapy Center or clinic for HIV positive clients or sexually transmitted disease clinics. Many clients being referred to such clinics may not get there eventually for fear of stigma and discrimination and other surmountable challenges.

In our study, one third of the facilities were observed to have adequate infrastructure in terms of space and equipment. In a similar support study (Ajala et al., 2005; Jaro and Ibrahim, 2012), infrastructure was found to be inadequate in many PHCs, thereby hampering provision of quality health services. Rural areas and underserved urban settlement may exhibit discrete format, while the rural setting is made up of settlements units of individual distinct villages. In our study, less than one-tenth had adequate stock of harmonized M and E tools for reporting, and this supports the MTE study (FMoH, 2007), though printing and production of such tools were largely donor driven. One major limitation of this study was the difficulty in getting literatures and data that are peculiar to BNA study using the World Bank/UNICEF model on both the demand and supply sides of identified bottlenecks.

Conclusion

Major bottlenecks constituting challenges to SRH/HIV integration include inadequate training, hindered access to SRH/HIV services and lack of completion of utilization of services. Circumventing these challenges is within the reach and control of stakeholders involved in service integration. These may include step down and in house training on SRH/HIV integration for health care workers, stepped up mentoring and supervisory visits by SMOH officials and supporting implementing partners, the health systems creating an atmosphere of geographical accessibility to services by people in the catchment areas, and stepped up community involvement through improved awareness. In addition, health care workers need to strengthen referral networking systems towards completion of referrals within and even between health facilities.

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Conflict of interest

The author declares no conflict of interest.

REFERENCES

- Adebimpe WO, Akindede RA, Asekun-Olarinmoye EO, Olugbenga-Bello AI (2013). Attitude and motivation factors towards volunteering for HIV/AIDS care work in Southern Nigeria. *Int. J. Med. Sci. Public Health* 2(4):824-828.
- Ajala OA, Sanni L, Adayinka SA (2005). Accessibility to Health Care Facilities: A Panacea for Sustainable Rural Development in Osun State Southwestern, Nigeria. *J. Hum. Ecol.* 18(2):121-128.
- Bharat S, Vaishali A, Mahendrab S (2007). Meeting the Sexual and Reproductive Health Needs of People Living with HIV: Challenges for

- Health Care Providers *Reprod. Health Matters* 15(29):93-112.
- Federal Ministry of Health (FMOH) (2007). National programmatic assessment for family planning and HIV counseling and testing integration in Nigeria. Final Report May 2007. Available at: http://pdf.usaid.gov/pdf_docs/PNADO274.pdf Accessed 18th July 2014.
- Federal Ministry of Health (FMOH) (2010). Technical Report: 2010 National Sentinel Seroprevalence Survey: Department of Public Health: National AIDS/STI Control Programme.
- Harrison KH (2009). The Struggle to Reduce High Maternal Mortality in Nigeria. *Afr. J. Reprod. Health* 13(3):9-20.
- Jahn A, De Brouwere V (2001). Referral in pregnancy and childbirth: Concepts and strategies. *Stud. Health Serv. Organ. Policy* 17:229-246.
- Jaro IM, Ibrahim AA (2012). The accessibility problems of primary health care to rural people in Jigawa State, Nigeria. *Glob. Adv. Res. J. Soc. Sci.* 1(4):072-076.
- Kambarami RA, Chirenje M, Rusakaniko S (2000). Situation analysis of obstetric care services in a rural district in Zimbabwe. *Central Afr. J. Med.* 46:154-157.
- Kennedy CE, Spaulding AB, Brickley DB, Almers L, Mirjahangir J, Packel L, Kennedy GE, Mbizvo M, Collins L, Osborne K (2010). Linking sexual and reproductive health and HIV interventions: a systematic review. *J. Int. AIDS Soc.* 13:26-33.
- National Population Commission (NPC) (2006). Nigeria demographic and health survey. Calverton Maryland. NPC and ORC Macro, 2006. pp. 45-47.
- National Population Commission (NPC) (2009). Nigeria Demographic and Health Survey 2008. Abuja: National Population Commission (NPC) and ICF Macro.
- The Guttmacher Report on Public Policy. (2004). The Role of Reproductive Health Providers in Preventing HIV. 7(4). Available at: <http://www.guttmacher.org/pubs/ib2004no5.html>
- Uneke U, Ogbonna A, Ezeoha A, Oyibo P, Onwe F, Ngwu B (2007). Innovative Health Research Group. The Nigeria health sector and human resource challenges. *Internet J. Health* 8(1):1-3.
- World Health Organization (WHO) (2004). Scaling up HIV/AIDS care: Service delivery and human resources perspectives. World Health Organization, Geneva. Available at: http://www.who.int/hrh/documents/en/HRH_ART_paper.pdf Accessed 18th May 2014.