Exploring the Positive Prevention, Care, Dignity and Rights Situation of HIV-Positive MSM in Nigeria

Kehinde Olaoluwa Okanlawon

Nigeria

51st International Course in Health Development/Master of Public Health (ICHD/MPH) September 22, 2014 – September 11, 2015

KIT (ROYAL TROPICAL INSTITUTE) Vrije Universiteit Amsterdam Amsterdam, The Netherlands Exploring the Positive Prevention, Care, Dignity and Rights Situation of HIV-Positive MSM in Nigeria

A thesis submitted in partial fulfilment of the requirement for the degree of

Master of Public Health

By

Kehinde Olaoluwa Okanlawon

Nigeria

Declaration:

Where other people's work has been used (either from a printed source, internet or any other source) this has been carefully acknowledged and referenced in accordance with departmental requirements.

The thesis "Exploring the Positive Prevention, Care, Dignity and Rights Situation of HIV-Positive MSM in Nigeria" is my own work.

Signature:

51st International Course in Health Development (ICHD) September 22, 2014 – September 11, 2015

KIT (Royal Tropical Institute)/ Vrije Universiteit Amsterdam Amsterdam, The Netherlands

September 2015

Organised by: KIT (Royal Tropical Institute) Health Unit Amsterdam, The Netherlands

In co-operation with:

Vrije Universiteit Amsterdam/ Free University of Amsterdam (VU)
Amsterdam, The Netherlands

Table of Contents

Table of Content	1,2
List of Tables and Figures	3
Acronyms	4
Key Definitions	6,7
Acknowledgement	8
Abstract	9
Introduction	10
Map of Nigeria	10
Chapter 1: Background Information about Nigeria	
1.1: Geography of Nigeria	11
1.2: Demographic Context	11
1.3: Socio-economic context	11
1.4: Political context	12
1.5: Health Status of Nigerians	12
1.6: A Brief Description of the Nigerian Health System	13
1.7: Health Financing	13
1.8: National AIDS Program of Nigeria and HIV/AIDS C	ontext 14
1.9: Human Rights Issues in Nigeria	15
2.1: Statement of the Problem	16
2.2: Objectives of the study	17
2.3: Justification	18
2.4: Methods	18

2.5: Search strategy utilized	18
2.6: Key Words	19
2.7: Conceptual Framework	19
3.1: Keep HIV-Positive MSM Physically healthy	22
3.2: Keep HIV-Positive MSM mentally healthy	29
3.3: Prevent HIV Transmission to other persons	33
3.4: Increase the agency of PLHIV	39
Chapter 5.1: Discussion	42
5.2: Conclusion	44
5.3: Recommendation	45-47
References	48-52

List of Tables and Figures

Table 1 Top 10 Causes of Death in Nigeria	12
Table 2 Literature review and Internet search	20
Figure 1	21

ACRONYMS

AIDS Acquired immune deficiency syndrome

ART Antiretroviral therapy

ARV Antiretroviral

CBO Community-based organization

CDC Centre for Disease Control and Prevention

CSO Civil Society Organization

CTX Cotrimoxazole prophylaxis

ENR Enhancing Nigeria's HIV/AIDS Response

FGON Federal Government of Nigeria

FSW Female Sex Worker

FMOH Federal Ministry of Health

GARPR Global AIDS Response Progress Report

GDP Gross Domestic Product

GHAIN Global HIV/AIDS Initiative Nigeria

GNP+ Global Network of People Living with HIV

HCT HIV/AIDS Counselling and Testing

HIV Human Immunodeficiency Virus

IBBSS - Integrated Biological and Behavioural Surveillance Survey

ITN Insecticide Treated Net

KIT Royal Tropical Institute Amsterdam

LGA Local Government Areas

LGBT Lesbian Gay Bisexual and Transgender Persons

MDG Millennium Development Goals

MHNN Men's Health Network Nigeria

MSM Men who have sex with men

NACA - National Agency for the Control of AIDS

NEPWHAN Network of People Living with HIV/AIDS in Nigeria

NHIS National Health Insurance Scheme

NGOs - Non-Governmental Organization

NPP National HIV/AIDS Prevention Plan

OI Opportunistic Infections

PHDP Positive Health Dignity and Prevention

PHR Physicians for Human Rights

PLHIV People living with HIV

PMTCT Prevention of Mother-To-Child-Transmission (also recently referred to as PVT Prevention of vertical transmission

PWID People Who Inject Drugs

RDS Respondent Driven Sampling

SMOH State Ministry of Health

SRHR Sexual and Reproductive Health and Rights

STI Sexually Transmitted Infections

TB Tuberculosis

TIERs The Initiative for Equal Rights, Nigeria

UNAIDS Joint United Nations Program on HIV/AIDS

WHO World Health Organization

KEY DEFINITIONS

Men who have sex with men (MSM): "MSM is an abbreviation used for 'men who have sex with men' or 'males who have sex with males'. The term 'men who have sex with men' describes males who have sex with males, regardless of whether or not they have sex with women or have a personal or social gay or bisexual identity. This concept is useful because it also includes men who self-identify as heterosexual but have sex with other men." (UNAIDS, 2011)

HIV-positive persons: "refers to people with antibodies against HIV detected in their blood through a blood test or gingival exudate test (commonly known as a saliva test). Synonym: seropositive. Results may occasionally be false-positive, especially in infants up to 18 months of age who are carrying maternal antibodies. " (UNAIDS, 2011)

HIV-Positive MSM: refers to MSM who have been proven to be infected with the HIV virus through HIV tests which shows they are positive to the virus.

Homosexual/Homosexuality: "The word homosexual is derived from the Greek word 'homos', meaning 'same'. It refers to people who have sex with and/or sexual attraction to or desires for people of the same sex. This should not be confused with the Latin word 'homo', which describes humanity as a whole. " (UNAIDS, 2011)

Homophobia "is the fear, rejection, or aversion, often in the form of stigmatising attitudes or discriminatory behaviour, towards homosexuals and/or homosexuality" (UNAIDS, 2011)

Stigma "is a dynamic process of devaluation that significantly discredits an individual in the eyes of others. Within particular cultures or settings, certain attributes are seized upon and defined by others as discreditable or unworthy." (UNAIDS 2011)

Discrimination "occurs when stigma is acted upon. It can take the form of actions or omissions. Discrimination refers to any form of arbitrary distinction, exclusion, or restriction affecting a person, usually but not only by virtue of an inherent personal characteristic or perceived belonging to a particular group—in the case of AIDS, a person's confirmed or suspected HIV-positive status—irrespective of whether or not there is any justification for these measures." (UNAIDS 2011)

Concentrated epidemic: "is an epidemic where HIV spread rapidly in one or more populations but is not well established in the general population. Typically, the prevalence is over 5% in subpopulations while remaining under 1% in the general population, although these thresholds must be interpreted with caution.

A generalised HIV epidemic is an epidemic that is self-sustaining through heterosexual transmission. In a generalised epidemic, HIV prevalence usually exceeds 1% among pregnant women attending antenatal clinics. "(UNAIDS, 2011)

Positive Health, Dignity, and Prevention: "frames HIV prevention policies and programmes within a human rights perspective in which preventing HIV transmission is viewed as a shared responsibility of all individuals irrespective of HIV status. 'Positive health, dignity, and prevention' was coined during an international meeting organised by the Global Network of People Living with HIV/AIDS (GNP+) and UNAIDS in April 2009. It aims to replace terms such as 'positive prevention' or 'prevention by and for positives'. Encompassing strategies to protect sexual and reproductive health and delay HIV disease progression, it includes individual health promotion, access to HIV and sexual and reproductive health services, community participation, advocacy, and policy change." (UNAIDS, 2011)

Acknowledgements

I would like to thank God Almighty for His grace and mercy in my life.

I would like to specially thank the Netherlands Organization for International Cooperation for supporting me in pursuing this ICHD course in KIT, Amsterdam.

Many thanks are due to the hardworking, kind hearted and compassionate staff of KIT for their excellent teaching and support all through the year.

Thanks also to my thesis adviser and my back stopper for their guidance.

Abstract

Background: Research evidence shows that MSM are disproportionately affected by HIV in Nigeria and have much higher HIV prevalence (17.2%) than the general population (3.1%). MSM also have high HIV Incidence of 10.3%. Despite this high vulnerability of MSM to HIV, Nigerian MSM are particularly disadvantaged due to the existence of laws criminalizing homosexuality and a recent anti-gay law which criminalizes NGOs providing services to MSM. Studies show how the unfriendly environment has negatively impacted access and uptake of services by HIV-Positive MSM who fear arrests or violence. Most studies and interventions have targeted MSM in general with little known about HIV-Positive MSM.

Objective: This study explores the Positive Health, Dignity, Prevention and Care situation of HIV-positive MSM in Nigeria in order to better understand how to improve their health and rights.

Methods: Literature review of both published and unpublished data sources was utilized. The analyis utilized the Positive Health, Dignity, Prevention Framework in exploring the situation of Nigerian HIV-Positive MSM.

Findings: The findings revealed the unmet need for HIV treatment among HIV-Positive MSM some of whom are unable to access treatment due to the social and contextual factors. The study identified some successful interventions for HIV-Positive MSM in Nigeria and identifies gaps which need to be addressed in future.

Conclusion and Recommendation: The study recommends a scale up in treatment of HIV-Positive MSM and integration of diverse services for HIV-Positive MSM. More advocacy is needed to advance the rights of MSM and PLHIV in Nigeria and address HIV-related discrimination. More studies are needed on HIV-Positive MSM.

Introduction

For about 5 years, I have been working as a sexual health and rights advocate and social worker in Nigeria in different capacities. In the course of my work, I have had the opportunity to mobilize, facilitate and organize different programs for MSM, provide counselling services, and carry out researches. As a result, I have worked with many HIV-Positive Nigerian MSM participants, colleagues, advocates and friends, some of whom have died of AIDS-related deaths over the years. I have also had the opportunity to meet some MSM friends and participants who confidentially disclosed their HIV-status to me which I appreciated. Similarly, shortly before I resumed in KIT, I visited a MSM-oriented NGO in Abuja, Nigeria and met a large group of HIV-Positive MSM participants which inspired me to think about their positive prevention, overall health, well-being, dignity and rights needs.

For that reason, I have an interest in contributing towards this subject as a concerned Nigerian who does not want to lose any more MSM friends or participants to AIDS-related deaths. I therefore desire to work in the area of promoting the health and well-being of HIV-Positive MSM in Nigeria in future for the sake of rights and social justice. The study has five chapters. Chapter one presents a general background about Nigeria. Chapter Two includes the problem statement and the methods used in the study. Chapter three includes the findings from the literature review. Chapter four presents the discussion while Chapter five presents the conclusions and recommendations of the study.



Chapter 1: Background Information about Nigeria

This chapter includes background information about the country of study, Nigeria – its geography, important demographic indicators, the socioeconomic, cultural and political context, health status and health issues affecting the Nigerian population. This chapter also include information about human rights issues in Nigeria, a picture of the Nigerian health system and the National HIV and AIDS program.

1.1: Geography of Nigeria

Nigeria is a West African country which has a total land area of 923,768 square kilometres and constitutes the fourth largest country in Africa in terms of land area. Nigeria has a population density of 152 persons per square kilometres and has the following borders (Cameroon, Chad, the republic of Benin, Niger and the Atlantic ocean) which are located in the (east, northeast, west, north and south) of Nigeria respectively. Nigeria has diverse geography from its borders in the north with countries covered by parts of the Sahara desert (Chad and Niger) and about 800 kilometres of the Atlantic Ocean in its south. Nigeria has 36 states and a federal capital territory, Abuja. It has six geo—political zones and 774 Local government areas (LGAs). (FGON, 2004; NSP, 2009). Nigeria is a highly multicultural country with over 350 ethnic groups and several languages. The three major ethnic groups in Nigeria are Yoruba, Igbo and Hausa.

1.2: Demographic context

Nigeria is Africa's most populous country and one of the ten most populous countries in the world. It has a population of about 140 million people according to the 2006 census. Currently, it has an estimated population of 160 million persons. It is a young population with about half of the population under age 15 years and thus a high dependency ratio due to the disproportionately large number of dependants as compared to those in the economically productive ages. The population growth rate has declined from 3.2 in 2006 to 2.8 in 2013. The total fertility rate is 5.25. The Nigerian population has 54% rural dwellers and 46% urban residents. The life expectancy is 52 years. The overwhelming majority of Nigerians are either Christians or Muslims with a minority practicing traditional religions. Nigeria is a highly patriarchal society and a very religious country.

1.3: Socio-economic context

About 60% of Nigerians live below the poverty line despite the fact that Nigeria is one of the world's largest oil producing countries. Nigeria is a highly unequal society economically with huge gaps between the rich and the poor (FGON, 2004, NSP, 2009). Evidence shows that Nigeria had a Gini index of 43 out of 100 in 2010 (World Bank, 2015). Nigeria's major

earnings come from oil. Nigeria is a British colony and the official language of the country is English. Nigeria is Africa's largest economy and an emerging market with a growing telecommunications sector, financial sector and the film industry. Nigeria has an estimated GDP of \$58.5 billion in the year 2014 (World Bank, 2015). It is currently regarded as a lower middle income country. Rural-urban migration is common due to search for employment opportunities and social infrastructures.

1.4: Political Context

Nigeria is currently democratically ruled. It returned to democracy in the year 1999 after several years of military rule. Nigeria has been facing leadership challenges, corruption and mismanagement of funds in high levels of Government for several years. However, in recent years, there have been concerted efforts to tackle corruption and strengthen the implementation of the rule of law in serving justice to corrupt politicians and elected officials. In recent years, Nigeria has been experiencing sectarian violence from a terrorist group, Boko Haram in some parts of Northern Nigeria which has led to the deaths and disabilities of thousands of Nigerians. Even though the country is faced with many challenges, in general, the political situation appears to be improving with the most recent free and fair Presidential election and democratic transition which was commended by the International community.

1.5: Health Status of Nigerians

The current life expectancy of Nigerians (52 years) is one of the reflections of the health status of Nigerians. Malaria, HIV, tuberculosis, diarrheal and lower respiratory tract infections are some of the major health concerns in Nigeria. Maternal and child mortality remain major problems. Recent figures show a maternal mortality rate of 630 maternal deaths per 100,000 live births and under five child mortality rate of 124 deaths per 1000 live births (WHO, 2014). Over the years, the Nigerian Ministry of Health has made great progress in addressing guinea worm and polio. Due to the huge inequality which exist in Nigeria, there are disparities in the health status of Nigerians influenced by the determinants of health such as socio-economic status (access to money to pay for health care), access to clean water and decent living conditions, etc. Noncommunicable diseases such as diabetes, hypertension, stroke, high blood pressure, among others also affect the health status of Nigerians. Despite the efforts made in addressing HIV, infant mortality and maternal mortality as directed by the MDGs, these health issues still constitute problems in Nigeria.

Table 1: Top 10 Causes of Death in Nigeria

1.	Malaria 20%	6.	Protein-Energy Malnutrition 4%	
2.	Lower Respiratory Infections 19%	7.	Cancer 3%	

3.	AIDS-related 9%	8.	Meningitis 3%
4.	Diarrheal Diseases 5%	9.	Stroke 3%
5.	Road Injuries 5%	10.	Tuberculosis 2%

Source: GBD Compare, 2010 as cited in (CDC, 2013)

1.6: A Brief Description of the Nigerian Health System

The Nigeria health system involves contributions of key players in the local, state and federal government. Some of the key players include the Federal and State Ministry of Health (FMOH and SMOH), institutions which train health workers, State Hospital Management Boards, and the Local Governments which provide basic health services to the populace. The 774 LGAs in the country provide primary health care services and are supported by the SMOH. Diverse sets of providers are involved in the public and private sector of the Nigerian health system. There are public health facilities managed by the federal, state or local governments. Given the inability of the public health sector to meet the health care needs of all Nigerians, the private sector (both for-profit and non-profit) is filling a needed gap in the health system. There are several NGOs; Faith based Organizations (FBOs) such as churches or missionary hospitals and traditional/spiritual healers including private medicine vendors. There are disparities in the Nigerian health sector with more health care services available in urban areas than rural areas, and also in Southern Nigerian than Northern Nigeria.

Nigeria has much higher health professionals as compared to most sub-Saharan African countries. Nigeria has a ratio of about 100 nurses and 30 doctors per 100,000 populations (FRON, 2008-2012). Only a handful of Nigerian middle class population are covered by the National health insurance scheme (NHIS). The objectives of the NHIS as highlighted in (NHIS, 1999) have not been achieved over the years. As a result, many poor Nigerians face financial challenges associated with paying medical bills. Over the years, there has been an improvement in the health system compared to past decades. Nigeria has about 60 federal medical centres and university teaching hospitals, about 33,000 general hospitals and about 20,300 health posts and primary health centres (Omoruan, Bamidele and Phillips, 2009). However, there is need for improvement in the quality of the health care, more health facilities and equitable distribution of facilities and health professionals. Some other issues in the Nigerian health system are the availability of fake and substandard drugs; the inability of poor Nigerians to afford health care, among others (Steinberger et al, 2008).

1.7: Health Financing

The total expenditure on health per capita of Nigeria was \$217 in the year 2013. The total expenditure on health as a percentage of the GDP was 3.9% in 2013 (WHO, 2015). The Nigerian health system is financed by diverse sources (out-of-pocket payments, tax, health insurance which covers only some Federal Government workers as explained earlier, community health financing scheme and donor funding. communities who face challenges in accessing health care due to financial and other related challenges have community health financing schemes (associations of market women, meat sellers, taxi drivers, village farmers, etc) who pull their resources together to provide for their health needs (Akande and Monehin, 2004) due to the failure of the Government to address the high cost of health care and insurance for the poor. Outof-pocket health expenditure as a percentage of private expenditure on health in Nigeria was 95.3% in 2010. External resources for health as a percentage of the total expenditure on health in Nigeria declined from 16.2% in 2000 to 9.2% in 2010 (World Bank, 2014).

1.8: National AIDS Program of Nigeria and HIV/AIDS Context

The Nigerian National AIDS Program was established in the year 2000 to coordinate HIV/AIDS activities in the entire country. There are 36 state offices in each of the 36 states of Nigeria which report to the National office in Nigeria's capital, Abuja. The National AIDS Program in Nigeria works in collaboration with the Ministry of Health, donors, civil society and the private sector. The National Agency for the Control of AIDS (NACA) provides technical support to the State AIDS agencies. They work with National Strategic plans and utilize multi-sectoral approaches. NACA provides leadership in the AIDS response in Nigeria.

Nigeria had an estimated adult HIV prevalence of 3.2% in the year 2013 with an estimated 2.8 million adults and 400,000 children living with HIV making a total of an estimated 3.2 million Nigerians living with HIV. There was an estimated 210,000 AIDS-related deaths in Nigeria in 2013 and about 2 million AIDS orphans (UNAIDS, 2013). The main mode of HIV transmission in Nigeria is through heterosexual intercourse. The highest HIV incidence in Nigeria (about 42%) is found among cohabiting or married heterosexual couples who are less likely to use condoms (GARPR, 2014). In general, Nigeria has a mixed epidemic (both generalized and concentrated epidemic). Research evidence has shown the existence of high HIV incidence and prevalence among key populations in Nigeria (IBBSS, 2007, 2011). Concentrated HIV epidemic exist among key populations such as (FSW, PWID and MSM) who have an HIV incidence of (3.4%, 9% and 10.3%) respectively (NACA, 2014-2015). In addition, about one-fifth to one-quarter of brothel-based and non-brothel-based Female sex workers (FSW) are HIV-Positive (IBBSS, 2007). Nigeria's HIV prevalence is much less than that of many Southern African countries, but however, Nigeria has the second highest HIV incidence reported each year (FRON, 2012) which is reflected in the number of HIV-Positive citizens. The huge numbers of AIDS-related deaths have certainly had an impact on Nigeria's life expectancy.

1.9: Human Rights Issues in Nigeria

Even though the Nigerian Constitution calls for the separation of religion and the State, some Nigerian laws influenced by religious beliefs violate the rights of Nigerian MSM and other key populations. Sharia law exists in twelve states in Northern Nigeria. Homosexuality and sex work are illegal all over the country. Some of the common human rights violations in Nigeria are abuse of office by Nigerian policemen who sometimes extort and blackmail citizens for their personal gains, inhuman living conditions for prisoners, human trafficking, child labour, child abuse, and child marriage in Northern Nigeria. In 2014, a new law was signed to further criminalize homosexuality with same-sex marriage attracting 14 years in prison. In addition, this law also criminalizes those who organize and support gay Organizations and thus constitutes an impediment to gay organizing in Nigeria. Nevertheless, despite this law, Nigerian LGBT persons do organize regular health and human rights programs clandestinely.

Chapter 2: Problem Statement and Methodology

This chapter describes the the statement of the problem, the justification of the study, the methods utilized in the study as well as the conceptual framework of the study.

2.1: Statement of the Problem

Research evidence from the IBBSS (2011) shows that MSM are disproportionately affected by the HIV epidemic than the general population with a discrepancy of 17.2% HIV prevalence among MSM as opposed to 3.1% in the general population. In three major Nigerian cities, (Abuja, Lagos and Ibadan), HIV prevalence among MSM were (34.9%, 15.2% and 11.3% respectively) which ranges from about four to eleven times the HIV prevalence in the general Nigerian population (3.1%) (ENR, 2010). As a result, there are many HIV-Positive MSM in Nigeria. Although there are no MSM size estimates in Nigeria, there are only size estimates of MSM sex workers in three Nigerian cities, Lagos, Kano and Port Harcourt who are 865, 642 and 358 persons respectively (Population Council, 2012). HIV Incidence in the general population has gradually declined annually over the past five years (NACA, 2014) but among MSM the incidence of HIV remains high at 10.3% (NACA, 2014-2015). The high discrepancy in the HIV prevalence of MSM as compared to the general population can be attributed to factors such as inadequate access of MSM to HIV services, the neglect MSM sometimes face in accessing health care due to stigma and discrimination, the criminalization of homosexual acts, among other factors (Allman et al, 2007, Merrigan et al, 2010). This results in a growing HIV-Positive MSM sub-population with health needs which may be different from MSM who are HIV-negative and which may be unmet.

Several studies exist on the sexual health and HIV vulnerability of MSM in general in Nigeria (Allman et al, 2007; Merrigan et al, 2010; Ofem, 2008); however, there is a dearth of research on the health of HIV-Positive MSM in Nigeria. In recent years, the availability of ARV drugs for HIV-positive persons has enabled HIV-infected persons around the world to live healthier and longer lives. This ought to be highly beneficial for HIV-Positive MSM in Nigeria. However, diverse sources of evidence have shown that the Nigerian MSM-community has lost many members to AIDS-related illnesses over the years (Alimi, 2014; Iyare, 2003) due to lack of access to HIV services and the prevention of opportunistic infections (OIs). Evidence from a study on MSM by (Allman et al. 2007) showed that 8.6% of the participants knew 3 or 4 people who had died of AIDS-related causes while another 8.6% knew 5 or more people who had died of AIDS-related causes. Similar findings are found in (Ofem 2008, Okanlawon Adebowale and Titilayo 2012) where Nigerian

participants expressed concerns about HIV and how they had lost many friends to AIDS-related deaths.

Since MSM are highly disproportionately affected by HIV than heterosexuals in Nigeria (Allman et al 2007, Merrigan et al, 2007, IBBSS, 2011) and since diverse sources of evidence (Alimi 2014, Iyare 2003, Allman et al. 2007) reveal that many HIV-Positive Nigerian MSM have died of AIDS-related deaths over the years, It is possible that HIV-Positive MSM may be disproportionately affected by AIDS-related deaths than HIV-Positive heterosexuals due to the multiple exclusion, stigma and legal inferiority they face for 'being MSM' and 'being HIV-Positive'. Given that diverse sources of evidence shows that many Nigerian MSM have died of AIDS-related deaths over the years (Alimi, 2014; Iyare, 2003; Allman et al, 2007; Ofem, 2008; Okanlawon Adebowale and Titilayo, 2012), it is undoubtedly important to take steps to understand the health needs of HIV-positive MSM so as to be able to address them in order to promote their health and wellbeing.

2.2: Justification

In recent years, some HIV-Positive Nigerian gay men in Diaspora such as Bisi Alimi and Kenny Badmus have come out publicly about their HIV status and have been advocating for their health and that of other MSM (Alimi, 2014; GistOnItNow, 2015). In the past few years in Nigeria, some NGOs in a few big cities such as Lagos, Abuja have been providing HIV treatment and care for HIV-Positive MSM. However, these services are not available in most parts of Nigeria. Evidence from (TIERs, 2014) as cited in (Alimi, 2014) shows that the same-sex marriage prohibition act 2014 has had a negative effect on the uptake of services by MSM in Lagos, Rivers, Kano, Abuja and Cross River States by (40%, 30%, 70%, 30% and 10% reduction respectively). This has also had serious effects on the health of HIV-Positive MSM some of whom stopped accessing HIV treatment due to the fear of arrests, stigma or discrimination (Orazulike et al, 2014, 2015). Given this background, the inability to adequately address the health needs of HIV-Positive MSM may have other implications.

For instance, addressing the HIV treatment needs of HIV-Positive MSM may have a positive externality on HIV-negative MSM and other partners of MSM who may be less likely to be infected. This makes economic sense as it can help contribute to reducing the country's costs on ARV through the prevention of new HIV cases such as the 0.9% HIV incidence among female partners of MSM (NACA, 2014-2015). As mentioned earlier, not much is known about the Positive Prevention and care situation and the health and rights of HIV-Positive MSM in Nigeria since most studies and efforts target MSM in general. In addition, HIV-Positive MSM face double discrimination – both "homophobia" and "HIV-stigma and discrimination" which may make them more vulnerable. This study therefore focuses on analyzing the existing situation for HIV-Positive MSM in Nigeria using the

Positive Health, Dignity and Prevention (PHDP) Framework with a view to utilize the findings to recommend policies and program initiatives. The health needs, well-being and situation of HIV-Positive MSM therefore deserves attention and better understanding for public health, human rights and social justice reasons.

2.3: Objectives of the study

The general objective of this study is to explore the Positive Health, Dignity, Prevention and Care situation of HIV-positive MSM in Nigeria in order to better understand how to improve their health and rights.

The specific objectives are to:

- i) Explore the Positive Health, Dignity, Prevention and Care situation of HIV-Positive MSM in Nigeria
- ii) Explore the state of Positive Prevention interventions for HIV-Positive MSM in Nigeria
- iii) Explore the extent and access of HIV-Positive MSM to Positive Prevention interventions in Nigeria
- iv) Identify strategies that can help improve the health and rights of HIV-positive MSM in Nigeria

2.4: Methods

This research involved a review of literatures relevant to the study objectives. The researcher also utilized his personal experience of working with MSM to share some experiences of working in this field in Nigeria. The analysis of the findings from the literature review is guided by a relevant conceptual framework which was selected for this study. The study reviews the literature on MSM and PLWHIV in Nigeria in addition to literatures about HIV-Positive MSM in Nigeria.

2.5: Search Strategy Utilized

Key words from the study objectives and the conceptual framework of the study were used in the literature search. Search engines such as Google, Google scholar, Pub Med and Science Direct were utilized for the literature search. The researcher consulted some colleagues in the field who recommended some important literatures and presentations on HIV-Positive MSM which were utilized. Sources such as the websites of UNAIDS, WHO, NACA and FMOH of Nigeria and some Nigerian HIV reports

were also utilized. Given the few available studies on HIV-Positive MSM in Nigeria, the researcher utilized literatures on 'MSM in Nigeria' and literatures on 'PLWHIV in Nigeria' since HIV-Positive MSM are 'MSM' and also 'PLWHIV'. This approach was utilized in order to better understand what it is to be MSM in Nigeria and also what it is to be a PLWHIV in Nigeria so as to fill the gap in the unavailability of adequate data on HIV-Positive MSM in Nigeria. Only papers in English were utilized.

2.6: Key Words

In the process of searching for relevant literatures related to the subject, some key words such as MSM and Nigeria, HIV-Positive MSM, PLWHIV, health needs, interventions, stigma, illness, infection, coping, risk behaviour, mental health, depression, psychosocial problems, psychosocial counselling, Africa, health, access, experiences, internet use, sexual risk, risk behaviour, substance abuse, AIDS mortality or AIDS-related deaths, treatment were searched. Some combination of words such as HIV-Positive MSM and Nigeria, MSM or PLWHIV and Nigeria were utilized.

2.7: Conceptual Framework

The conceptual framework selected guided this literature review in exploring the situation of HIV-Positive MSM in Nigeria using the Positive Health, Dignity and Prevention (PHDP) framework. Since there is a dearth of knowledge about the positive prevention and care needs and experiences of HIV-Positive MSM in Nigeria as it relates to their physical and mental health, rights and overall well-being, this study utilized the PHDP framework which was developed by (Kennedy et al., 2010). This framework was used to examine the PHDP situation and interventions needed to enable HIV-Positive MSM prevent infections, improve their coping, reduce risk behaviour and advance their rights and participation. The framework was used to examine the current interventions in Nigeria and how they meet or do not meet the needs of HIV-Positive MSM with a view to recommending how they can be improved to better meet the needs of HIV-Positive MSM.

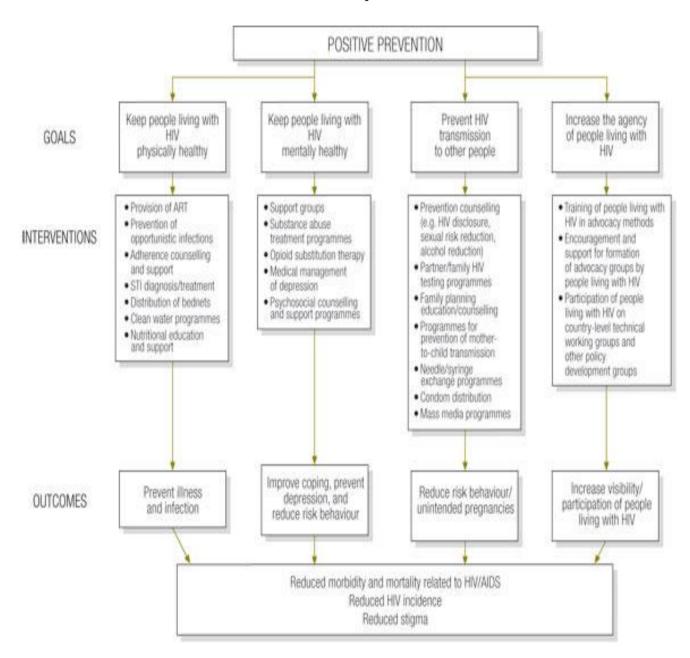
The positive prevention framework (PHDP) by (Kennedy et al. 2010) includes efforts which seek to achieve the following goals: making sure PLHIV are physically and mentally healthy, empower them with the resources, interventions and skills needed to protect their health and that of their partners as well as ensuring that PLHIV are meaningful participants in HIV programs, policy initiatives, active advocates, leaders and decision makers. This study focuses on the goals of this model and the several listed interventions which can be used in achieving the desired outcome which is to prevent illnesses and infections, improve coping,

prevent depression and risk behaviour of HIV-Positive MSM. Given the diverse interventions highlighted by (Kennedy et al. 2010) as being needed to achieve physical, mental health and the prevention of HIV transmission among HIV-Positive persons, this study applied this framework for HIV-Positive MSM. This study uses this conceptual framework to explore the Nigerian situation in order to understand the gaps which exist and inform relevant interventions and approaches to better meet the needs of HIV-Positive MSM.

Table 2: Literature review and Internet search

	1	Olada aktiva d	Olada akir a 2	01-1
		Objective 1	Objective 2	Objective 3
		Key words	Key words	Key words
Pubmed	Published peer reviewed journals	HIV-Positive MSM and PLHIV and Nigeria and STI and adherence and ART or ARV drugs	PLHIV and opportunistic infections and drug use and MSM	PLHIV and MSM and rights and Nigeria and criminalization
Google scholar	Published peer reviewed journals	HIV-Positive MSM and Nigeria and MSM and substance use or substance abuse	Mental health and depression and MSM and PLWHIV	Stigma and discrimination and MSM and PLHIV
Google, WHO, UNAIDS, NACA,	Grey literatures	Nigeria and HIV/AIDS and MSM and PLHIV	MSM and HIV and PLHIV and nutrition	MSM and HIV
Google	Electronic abstracts of HIV/AIDS Conference s	MSM living with HIV and Nigeria and support group	Condom use and disclosure of HIV status and Nigeria	PLHIV and access and stigma
Reference list of relevant reports and articles	Published peer reviewed journals and relevant reports	HIV/AIDS and Nigeria	MSM and Nigeria and HIV and PLHIV	MSM and Nigeria and criminalization

Fig. 1: Conceptual framework consisting of goals, interventions and expected outcomes of positive prevention for PLHIV (Kennedy et al. 2010)



CHAPTER 3: Positive Health, Dignity, Prevention, Care and Rights Needs of HIV-Positive MSM

This chapter explores findings from literature which are relevant to the topic of study (HIV-Positive MSM) in the Nigerian context in order to shed light on the Positive Health, Dignity and Prevention (PHDP) situation and needs of HIV-Positive MSM in Nigeria with a view to understanding their physical, mental health, prevention of HIV transmission among them and their agency and rights issues. The conceptual framework that was adopted for this study (The PHDP Framework) by (Kennedy et al, 2010) was designed for PLWHIV in general but it is applied to HIV-Positive MSM in this study since they are a sub-population of PLWHIV. Since there is limited research and data on HIV-Positive MSM in Nigeria, studies on 'MSM in Nigeria' and studies on 'PLHIV in Nigeria' were used to build the arguments in order to better understand the situation. This was done because HIV-Positive MSM are 'MSM' and are also 'PLHIV' Nigerians. Therefore, several literatures on MSM in Nigeria, PLWHIV in Nigeria and HIV-Positive MSM in Nigeria were utilized to complement each other in order to better understand the situation.

Goal 3.1: Keep HIV-Positive MSM Physically Healthy

In line with the conceptual framework, the major outcome of keeping HIV-Positive MSM physically healthy is to prevent illness and infection. In order to achieve their physical health, the following interventions are needed: i) provision of ART ii) prevention of opportunistic infections iii) adherence counselling and support iv) STI diagnosis/treatment v) distribution of bed nets vi) clean water programs vii) nutrition education and support

3.1.1: Provision of ART

According to 2013 Nigerian HIV estimates, out of the estimated 3.2 million Nigerian PLHIV, about 1.5 Million PLHIV required ART in 2013 (GARPR, 2014). Additionally, over 210, 000 Nigerians died of AIDS-related causes in 2013, some of which could have been averted if there was higher access to ART and increased uptake among PLHIV who required ART. The Nigerian FMOH estimates that only 19.8% of eligible adults and children are currently receiving ART (GARPR, 2014). They also found that 81% of PLWHIV (both adults and children) were found to be on treatment 12 months after initiating ART (GARPR, 2014). The President's Comprehensive Plan for HIV/AIDS has a goal of providing ART for additional 600,000 eligible PLHIV and providing access to combination prevention services for half a million MSM, PWID and FSW (GARPR, 2014).

ART provision has improved in Nigeria over the years from 25 ART sites in

2002 to 820 ART sites in 2013 and the coverage has also improved from only 18 states in 2002 to the whole 36 states in 2013 (GARPR, 2014). ART is provided in mostly secondary and tertiary health facilities in Nigeria and has been extended to some primary health facilities (GARPR, 2014) hence rural dwellers who have higher HIV burden than urban population (NACA, 2014) face more challenges accessing HIV services due to geographical and financial concerns of travelling to hospitals in urban centres for HIV services (Here I am Campaign, 2012). Only 3% of health facilities in rural area provide ART to PLWHIV as opposed to about 20% in urban areas (Hagen-Zanker and Holmes 2012).

Out-of-pocket expenditure for HIV services is high in Nigeria due to limited HIV funds in which Nigeria contributes only 25% with donors contributing the most (NACA 2014). Some Nigerians pay user fees to access ART monthly. In a study, some 70% of PLHIV participants who pay for their medication reported that they spend an average of about 5,500 naira (about \$40) on medication monthly (PHR, 2006). Some PLWHIV benefit from the support of family and friends who help them pay for the ARV drugs while some get ARV drugs free of charge from some NGOs sponsored by International donors (PHR, 2006). Even though ART is highly subsidized by the Nigerian Government and the support of donors which deserves commendation, Nigeria is yet to achieve the desired universal access as about 1.4 million persons still need access to ART (GNP+, NEPWHAN, 2011). Studies targeting PLWHIV and health care providers show that the cost of health care and financial challenges constitute major barriers to accessing HIV treatment among PLWHIV (PHR, 2006). Some PLWHIV are not able to access ARV drugs because they are forced to do CD4 count test before being given ARV drugs and some do not have the money to pay for the CD4 test (PHR, 2006).

Nigeria's commitment to achieving Universal access and to providing comprehensive HIV prevention, treatment and care is highlighted in many International documents, however, in reality, only about one-third of those who require ARV drugs are on treatment (GARPR, 2014). MSM and other key populations may also face additional challenges in accessing services. A MSM-friendly clinic in Nigeria with 359 HIV-Positive MSM reportedly has only 129 on ARV drugs (Orazulike et al, 2015). On the one hand, there are laws protecting Nigerian PLWHIV from discrimination (The HIV/AIDS Anti-discrimination Act 2014) in Nigeria, on the other hand, there are anti-gay laws which criminalize homosexual acts which presents a challenge to HIV-Positive MSM and other MSM in accessing HIV services. Research evidence from a community MSM-oriented NGO in Nigeria shows that HIV-Positive MSM face huge stigma and fear due to homophobia and which prevents them from accessing ART services which they are entitled to as PLWHIV (Ezomoh and Oguntona, 2014). This, among other factors has led to AIDS-related deaths among some Nigerian HIV-Positive MSM over the years (Ezomoh and Oguntona, 2014). Meanwhile, most HIV services for MSM exist in a few big cities in Nigeria where there are USAID Partners (Spina, 2010).

In January 2014, the Nigerian President signed an anti-gay act into law which criminalizes public show of homosexual relationships as well as criminalizes gay rights Organizations. This law have constituted serious impediments to providing HIV services for MSM including HIV-Positive MSM, many of whom have avoided seeking HIV services due to the fear of arrests, discrimination and violence (The Economist, 2014; Schwartz et al, 2015). As mentioned above, this has contributed to the death of some HIV-positive MSM in 2014 (Orazulike et al, 2015). Similarly, ART provision was seriously impacted by the anti-gay law which led to 73% reduction in access to HIV prevention services by MSM (Orazulike et al, 2015). An NGO observed a reduction in access by HIV-Positive MSM from 63 persons monthly to about 15 persons monthly after the newly passed anti-gay law (Orazulike et al, 2014).

One of the targets of the National strategic plan is to reach 80% of MSM with HIV services even though this is difficult to determine without size estimates of MSM (Spina, 2010). Research evidence reflects the gaps in ART provision and access to HIV services for MSM in Nigeria as almost half of MSM in a study knew of someone who have died of AIDS-related causes (Allman et al, 2007). Due to the unfriendly environment where MSM are criminalized and may fear accessing services, one strategy used to improve services for MSM by Population Council, Nigeria was the training of health services that are willing to provide services for MSM so that MSM can be referred to these facilities by gay-oriented NGOs (Spina, 2010). However, ever since the new anti-gay law was passed in January 2014, some NGOs fear referring HIV-Positive MSM to public hospitals for fear of discrimination (The Economist, 2014). In the face of this homophobia in Nigeria, research evidence showed that respondent-driven sampling (RDS) was efficient in reaching Nigerian HIV-Positive MSM and engaging them in HIV treatment to reduce HIV-related morbidity and mortality among them (Baral et al, 2015) in a MSM community venue where ART services are provided for HIV-Positive MSM in Abuja Nigeria (Baral et al. 2015; Charurat et al. 2015). This innovation emphasizes the benefit of RDS as an intervention tool for ART for HIV-Positive MSM in Nigeria (Baral et al, 2015).

3.1.2: Prevention of Opportunistic Infections (OIs)

As earlier mentioned, an estimated 3.2 million Nigerians were HIV-Positive in 2013. An estimated 220,000 new HIV infections also occurred in 2013 (GARPR, 2014). With this huge population of HIV-Positive Nigerians, prevention of opportunistic infections (OIs) is undoubtedly important especially since about two-third of Nigerians who need ART are unable to access it (GARPR, 2014). Tuberculosis (TB) is the most common OI affecting PLHIV in Nigeria. ART use has the possible effect of reducing the spread of TB by building the immune system. Only an estimated

55.95% of HIV-Positive incidents with TB received treatment for both HIV and TB in 2007 (GARPR, 2014). In 2009, 69.1% of them received treatment for both while only 28.1% received treatment for both in 2013 (GARPR, 2014). This lack of universal access to treatment of OIs and HIV may party explain the AIDS-related deaths in Nigeria which is estimated an annual figure of about 210, 000 persons in 2013 (GARPR, 2014).

The AIDS response in Nigeria involves screening people with TB for HIV and also screening PLHIV for TB as well and recommending prophylaxis such as cotrimoxazole to PLHIV to protect them from OIs (GARPR, 2014) which has been found to be helpful in many low and middle income countries (Suthar et al, 2011). The prioritization of simultaneous treatment of HIV and TB is important in decreasing the spread of multidrug resistant TB. Unfortunately, the National guideline which requires that HIV-Positive Nigerians who are co-infected with TB be immediately initiated with ARV is hardly complied with (GARPR, 2014) as shown through the data above since not every HIV-Positive person with TB is treated for both.

The goal of the National Policy for Prevention (NPP) 2014-2015 is to integrate the treatment of HIV with that of OIs such as TB (NACA, 2014). Due to the strong link between HIV and TB, TB is now a priority for HIV experts to keep PLHIV healthy and to prevent the transmission of TB to others through the provision of Isoniazid prophylaxis for HIV-Positive persons with TB after being treated of TB (GARPR, 2014). There is a dearth of research about OIs among HIV-Positive MSM in Nigeria. But as a service provider and advocate, I know a number of cases of HIV-Positive MSM who died due to OIs such as TB over the years. In a study which targeted health care providers and PLWHIV in Nigeria, 12% of health workers agreed that treating OIs among PLWHIV is a waste of resources and another 7% agreed it is a waste of precious resources (PHR, 2006). Some believe it is a waste of resources on PLHIV who may not live long (PHR, 2006). These attitudes partly reflect the status of PLHIV in Nigeria and how the serious stigma associated with HIV may contribute to the undervaluing of their lives.

Low-income PLHIV face financial challenges which prevent them from accessing health care and treating OIs due to the costs of medications, laboratory tests, among others which they are expected to pay for (PHR, 2006). Some PLWHIV in this study reported taking antibiotics for HIV-related condition such as OIs while about 40% of the respondents reported that they could afford to pay for their antibiotics (PHR, 2006). A study in Nigeria estimated a mortality rate of about 32% among PLHIV due to TB and sepsis (Ezugo et al, 2014). Another study in Nigeria showed that about 40% of PLHIV respondents knew their HIV status after falling sick probably due to OIs or other HIV-related condition and testing for HIV in the hospital (Ajayi et al, 2013). Studies show that HIV can also be a risk factor for some cancers such as Non-Hodgkin's Lymphoma,

Kaposi Sarcoma among others which Nigerian PLHIV have been shown to have little knowledge about (Jedy-Agba and Adebamowo, 2012). Global HIV/AIDS Initiative in Nigeria (GHAIN) prioritizes the treatment of OIs and therefore has a comprehensive list of 20 important medications for OIs which they ensure are always available in health facilities for PLWHIV in Nigeria (GHAIN, 2011). HIV-Positive MSM who report for OIs in Nigeria can either be referred to MSM-friendly public health services for treatment or provided with treatment in MSM-oriented clinics.

3.1.3: Adherence counselling and support

Adherence counselling and support such as problem-solving strategies have been acknowledged as being important in preventing treatment interruption which can arise due to different barriers (Tabatabai et al, 2014). Several factors such as transportation costs in going to hospitals, forgetfulness, travelling, side effects of the ART, fear of stigma if found using the medication, travelling, pregnancy, health status or religious beliefs (Tabatabai et al, 2014) have been identified as contributing to treatment interruption among PLWHIV despite the availability of social support and the awareness of the effect that treatment interruption can have. In response to the problem of forgetfulness, some Randomized control trials and HIV intervention studies have found that mobile phone text-messaging is efficient in improving ART adherence (Horvath et al, 2012) and have recommended that policy makers fund mobile phone text-messaging programs to improve ART adherence.

As part of efforts to improve ART adherence for HIV-Positive MSM in Nigeria, a project by an NGO in Kaduna, Nigeria provides daily mobile phone text-messaging as a reminder for HIV-Positive MSM to use their ART in addition to paying home-based care visits to them weekly (Onuorah, 2012). This approach has been found to be successful in increasing ART adherence among HIV-Positive MSM (Onuorah, 2012). In order to improve adherence, it is important to understand the barrier hindering it so as to address it. In Nigeria, Evidence from the Nigerian context has shown that adherence can be a problem for MSM due to the unfavourable environment where HIV-Positive MSM may fear violence, arrest, extortion, blackmail or being jailed on the grounds of their sexual orientation (Schwartz et al, 2015; The Economist, 2014; Orazulike et al, 2014) and so may not report for ART. Even if they report for ART, being depressed or emotionally stressed may affect adherence. Living a secretive life about one's HIV status may also be an impediment to ART adherence especially when HIV-Positive MSM have to hide their ART from their family members or house mates to prevent them from knowing their HIV status.

As earlier explained, research evidence shows that there has been a decline in the number of MSM including HIV-Positive MSM accessing HIV services ever since the passing of a new anti-gay law in January 2014

which criminalizes gay Organizations or anyone who supports or abets homosexuality in Nigeria (Orazulike et al, 2014). The integration of several health care services to key populations who are HIV-Positive may possibly help avoid loss-to-follow-up and improve adherence counselling in addition to other SRH services (NACA, 2014). Some studies have reported the use of home visits and support groups in improving ART adherence among PLWHIV in Nigeria (Ezugo et al, 2014). This may be helpful in addressing some of the needs of HIV-Positive MSM who may face more challenges with ART adherence due to the double discrimination they face. They may not only need to hide their MSM status, they may also have to hide their HIV status as well which may take a toll on them emotionally, psychologically and may lead to poor ART adherence.

3.1.4: STI Diagnosis/Treatment

One of the goals of the NPP 2014-2015 is early diagnosis and treatment of STIs among Nigerians (NACA, 2014). Ineffective STI programming has been identified as one of the drivers of HIV in Nigeria (NACA, 2014). Recognizing STIs as risk factors for HIV, the NPP 2014-2015 seeks to promote early STI diagnosis/treatment to reduce HIV risk (NACA, 2014). STI diagnosis/treatment is one of the minimum prevention package interventions (MPPI) for key populations in Nigeria as Nigeria has a goal of reaching 80% of sexually active persons with STI services by 2015 (NACA, 2014). The NPP 2014-2015 has recommended the integration of STI diagnosis/treatment with HIV services because of their similar cause which is unsafe sex (NACA, 2014). Social media and technology use such as black berry pin, mobile phone messaging, has been useful for Nigerian MSM in Lagos and a few other Nigerian big cities in contacting doctors of the MHNN and other MSM-friendly services about the STI symptoms they experience so as to seek treatment.

Some HIV studies targeting MSM in Nigeria have conducted STI diagnosis/treatment for MSM by sending blood samples to laboratory (ENR, 2010; Merrigan et al, 2008). MSM who participated in studies which involved STI tests in Nigeria were provided with free treatment for the STIs they had using the National STI syndromic guidelines. Those who tested positive for hepatitis B and C and HIV were referred to Government clinics for further diagnosis and management (ENR, 2010). Since some Nigerian MSM who have anal STIs are unwilling to go to hospitals for STI treatment (Ofem, 2008), some initiatives by Population Council have trained health care services on STI diagnosis/treatment so as to provide MSM-friendly sexual health services in different locations in Nigeria. MSM clinics which provide services for HIV-Positive MSM also provide STI diagnosis/treatment services.

Since the presence of STIs among HIV-Positive MSM indicate high-risk sexual practices which can transmit HIV or cause re-infection for those who are on ART, it's diagnosis and treatment is important to avoid

morbidity among MSM including HIV-Positive MSM. In Nigeria, studies show that STIs such as Chlamydia, hepatitis B and C and gonorrhoea are the major STIs affecting MSM (ENR, 2010). In two Nigerian cities, Ibadan and Abuja, one out of every four MSM reported at least one symptom of STI in the past 12 months while more than one out of every three MSM in Lagos reported STI symptoms (ENR, 2010).

In Nigeria, STI diagnosis and treatment is an important positive prevention need for MSM and HIV-Positive MSM since most Nigerian MSM have sex with both men and women and engage in high level of unprotected anal sex as shown in Lagos, Ibadan and Abuja respectively (43.5%, 49.8% and 31.1%) with also a high prevalence of selling sex for money among MSM (ENR, 2010). Although there is no data on STIs such as Chlamydia, syphilis among HIV-Positive MSM in Nigeria, the huge stigma associated with homosexual acts constitute impediments for closeted MSM and HIV-Positive MSM in seeking STI diagnosis/treatment due to their secret lives. As a result, such MSM may miss STI services or resort to self-medication for anal STIs or anal tears which may be harmful.

3.1.5: Distribution of Bed nets

Insecticide treated nets (ITNs) are important for PLWHIV to prevent mosquito bite in Nigeria where malaria is a major health problem. In Nigeria and many African countries, the distribution of ITNs usually targets pregnant women, their infants and under-five children who have a very high mortality rate due to malaria. Although the WHO has advocated for its distribution to all people where there is high malaria prevalence, this is far from being a reality due to the discrepancy in the number of ITNs available as opposed to the population who needs it. Over the years, ITNs were majorly given to pregnant women, HIV-Positive pregnant women and HIV-Positive infants and children majorly with support from UNICEF.

However, in recent years, it has been extended to HIV-Positive MSM with support from other donors as part of interventions targeting HIV-Positive MSM. These initiatives implemented by MSM-oriented NGOs in a few big cities in Nigeria have distributed ITNs to HIV-Positive MSM for malaria prevention. This is important because malaria exacerbates HIV by increasing viral load which could contribute to poor health among PLWHIV and also possibly increase the possibility of HIV transmission to others due to suppressed viral load. Malaria can be worse among PLWHIV than HIV-negative persons hence the importance of specially addressing it among PLWHIV. ITNs help to reduce malaria and can help keep PLWHIV healthy and malaria free. Recognizing this benefit, GHAIN's initiative alone has distributed about 44,000 ITNs to PLHIV and orphans and vulnerable children (OVC) who have higher vulnerability to dying of malaria in Nigeria (GHAIN, 2011). The initiative targeting HIV-Positive MSM is on a low scale and targets only the HIV-Positive MSM who access ART services.

3.1.6: Clean water programs

Clean water programs are important for PLWHIV in order to prevent water-borne diseases such as cholera, hepatitis A, viral gastroenteritis among others which could be gotten from contaminated water and cause illnesses among PLWHIV. PSI launched a product called water guard in 2004 which helps to purify water and make it safe for drinking. Hundreds of thousands of water guard are being sold in pharmacies in Nigeria. About 530,000 water guards were distributed to PLWHIV and OVC in Nigeria (GHAIN, 2011). Water guards are available for sale in pharmacies and supermarkets at affordable prices and can be purchased by PLWHIV who use a source of water that is not clean enough. Heartland Alliance has distributed some water guards free of charge to HIV-Positive MSM through some MSM-friendly NGOs in Nigeria. GHAIN also supports some NGOs in providing home-based care for PLHIV in general which include replenishing their water guard (GHAIN, 2011).

3.1.7: Nutrition Education and Support

In a study on MSM with 712 participants in Nigeria, about one-third of the respondents were not earning an income (ENR 2010) which could impact on their quality of nutrition if they do not have economically advantaged family and friends to support them. Evidence from a study on PLHIV shows that food insecurity was a major issue for some PLWHIV which was more serious in rural areas where more than 98% of respondents experienced one or more days where they had no food to eat in the month before the study (GNP+ NEPWHAN, 2011). Nutrition is highly important for PLHIV whose immune system may already be suppressed by HIV. GHAIN has provided nutritional support for some low-income PLHIV in Nigeria in health facilities and local communities by providing food nutrients produced from different locally made food crops (GHAIN, 2011). PLHIV and their families and caregivers were also trained on how to produce these food nutrients so as to improve their nutritional status. GHAIN also provided trainings on nutrition education, vegetable and food gardening at home and provided plumpy nuts to OVC (GHAIN, 2011). They also checked the BMI of PLHIV during support group meetings to determine how nourished they were (GHAIN, 2011). Some States in Nigeria such as Kaduna and Taraba State have provided nutritional support to PLHIV and OVC (GARPR, 2014). In a study on PLWHIV in 62% of the respondents reported receiving supplements (PHR, 2006). Some nutritional supports have been given to some low-income HIV-Positive MSM as part of the package of care in the past through MSM-oriented NGOs but this has been inconsistent depending on its availability and the demand for it.

Goal 3.2: Keep HIV-Positive MSM Mentally Healthy

In line with the conceptual framework, the major outcome of keeping

HIV-Positive MSM mentally healthy is to improve their coping, prevent depression among them and reduce risky behaviours (Kennedy et al, 2010). In order to keep them mentally healthy, the following interventions are needed: i) support groups ii) substance abuse treatment program iii) opioid substitution therapy iv) medical management of depression v) psychosocial counselling and support programs

3.2.1: Support Groups

The importance of support groups for HIV-Positive MSM and other PLHIV cannot be overemphasized due to the serious discrimination PLHIV experience in Nigeria (Access to health care PLHIV Nigeria) as these support groups provide them opportunities to share their burden with their fellow PLHIV and receive support and advice on ART adherence, sexual health messages, among others. In a study on PLHIV in Nigeria, 79% of respondents reported receiving support services for their HIV (PHR, 2006). The support groups provide opportunities for PLHIV to educate their trusted peers in safe spaces and discuss issues of HIV stigma, discrimination and how to cope and address them. A project targeting HIV-Positive MSM in Kaduna, Nigeria formed a support group with monthly meetings in safe spaces (Onuorah, 2012). Another NGO in Abuja formed a support group for HIV-Positive MSM who meet once a month.

In addition, HIV-Positive MSM are also advised to attend bigger support groups for PLHIV in general where they do not disclose their MSM status in order to avoid discrimination from their fellow PLHIV (Onuorah, 2012). The reason for introducing HIV-Positive MSM to other support groups is to provide opportunities for them to meet with other PLHIV who are not MSM so as to broaden their views and experiences about how HIV affects others and how they cope. An NGO in Lagos started a support group for HIV-Positive MSM which involved the provision of palliative care services for their fellow HIV-Positive MSM (Ezomoh and Oguntona, 2014). This initiative was managed by fellow HIV-Positive MSM and it experienced tremendous increase in the number of participants from 10 to 70 members of the support group (Ezomoh and Oguntona, 2014).

3.2.2: Substance Abuse treatment programmes

The percentage of People who inject drugs (PWID) who reported condom use at last sex in Nigeria was 52.5% while 4.2% of the PWID were found to be HIV-Positive (IBBSS, 2010). This data does not show what percentage of these drug users are MSM and those who inject drugs or not among the MSM. Evidence shows that about 9% of new HIV infections in Nigeria occur among PWID while about 0.4% of new HIV infections occur among their partners (NACA, 2014). Harm reduction intervention is therefore one of the minimum prevention package interventions for PWID as part of the Nigerian AIDS response (GARPR, 2014). Studies have

identified the link between substance abuse and emotional and mental health issues among gay men in addition to risky sexual behaviour (Stall et al, 2003). The use of some drugs among HIV-Positive MSM has been shown to contribute to risky sexual behaviour (Purcell et al, 2001) due to the drug influence. Some drugs popularly used by MSM in gay parties such as ecstasy, methamphetamine, among others and poppers have been shown to be associated with risky sexual behaviour among MSM (Purcell et al, 2001).

3.2.3: Opioid Substitution Therapy (OST)

OST is an important drug treatment intervention for PWID. In Nigeria, there are no programs targeting MSM who inject drugs even though they may be at a much higher risk of contracting HIV and other STIs than MSM who don't inject drugs. There is also no data about the proportion of HIV-Positive MSM in Nigeria who inject drugs. 8% of MSM in a study reported that they used drugs in the past 1 year (ENR, 2010). PWID are criminalized by law in Nigeria and therefore they engage in drug use secretly in order to avoid arrests. The secrecy constitutes an obstacle to providing community-based opioid substitution therapy for them. For instance, about 88% of PWID in a study in Nigeria had used heroine, about 81% had used cocaine which we are unsure if it was injected or not (ENR, 2010). About half of the PWID in the study have been injecting drugs for 1-5 years while about a quarter had been injecting for 6-10 years (ENR, 2010). MSM programs in Nigeria do not target MSM who inject drugs. The unmet need for opioid substitution is an obstacle in reducing HIV prevalence among PWID. OST is currently unavailable in Nigeria and many African countries.

3.2.4: Medical Management of Depression

The Nigerian HIV response has acknowledged the importance of integration of diverse health services in HIV care including mental health care (NACA, 2014). They have also highlighted the benefit of linkages and providing referrals for PLWHIV among health workers (NACA, 2014). Research evidence from a study on PLWHIV in Nigeria shows that 63% are ashamed of their HIV status, almost 20% feel suicidal, about half have low self-esteem while about 44% feel guilty for being HIV-Positive (GNP+ NEPWHAN, 2011). These internalized stigma and fears may indicate signs of depression and may require treatment. If PLWHIV in general experience these serious internalized fears and stigma, HIV-Positive MSM are likely to experience double internalized stigma and fears – one because of their HIV status and another because of their MSM status which is also highly stigmatized.

Only 56% of the PLWHIV in this study had discussed their emotional well-being with a health care provider (GNP+ NEPWHAN, 2011). In another study about PLWHIV in Lagos, Nigeria, about three-quarter of the

participants reported that life had been miserable for them as a result of the stigma and discrimination they face from diverse settings which had made some of them feel guilty, depressed or hiding their HIV status to avoid discrimination (Olalekan, Akintunde and Olatunji, 2014). This may require medical treatment for depression by psychiatrists. There have been several media reports over the years about Nigerians who committed suicide after finding out about their HIV-Positive status. An illustrative example is an HIV-Positive man who committed suicide after being abandoned by his wife and children (Nollygrio, 2014).

This may be an indication of unmet need of medical management of depression management among Nigerian HIV-Positive persons. No data currently exists about depression and its management among HIV-Positive MSM in Nigeria probably due to the low attention given to depression in Nigeria. A study on HIV-Positive MSM in Nigeria found that the internalized fear and discrimination facing HIV-Positive MSM had reduced their interest in HIV services (Onuorah, 2012). Most efforts to address depression among PLHIV including HIV-Positive MSM in Nigeria have been through psychosocial counselling which may not be enough for people who are seriously depressed who would rather need medical treatment to cope. As a service provider and MSM advocate, I know of a few cases of Nigerian MSM including HIV-Positive MSM who have attempted suicide over the years. PLHIV and HIV-Positive MSM may face traumatic events such as workplace discrimination or even arrests and violence for being gay (GNP+ NEPWHAN, 2011; The Economist) which may trigger depression and require treatment.

3.2.5: Psychosocial Counselling and Support Programs

Considering the highly discriminating environment Nigerian PLWHIV live in as shown through studies (Ajayi et al, 201; GNP+ NEPWHAN, 2011; Olalekan, Akintunde and Olatunji, 2014; PHR, 2006) where PLHIV experience discrimination even in churches and health psychosocial counselling and support programs are a necessity to encourage them to cope, stay mentally healthy and avoid any selfharming behaviour. GHAIN has established and supported about 120 PLHIV groups to provide psychosocial support to PLHIV and have reached about 120,000 PLHIV members (GHAIN, 2011). They have also supported community groups across eight states in Nigeria to provide psychosocial support for PLHIV to enable them learn more about how to stay healthy and live positively with HIV and how to address discrimination and thrive economically (GHAIN, 2011). They also trained almost 4000 health workers, volunteers and social workers on how to provide care and support for PLHIV in the general Nigerian population (GHAIN, 2011). Some health workers who discriminate against PLHIV reported the unavailability of supplies which they need to prevent themselves from contracting HIV as being responsible for their attitudes towards PLHIV (PHR, 2006)

A study on the Quality of life of PLHIV in Ibadan, Nigeria revealed the possible benefit of psychotherapy they receive in the HIV clinic as they had high scores in psychological health (71.60 ± 18.40) (Folasire, Irabor and Folasire, 2012). The PLHIV in this study had lower scores in the social domain (68.89 ± 16.70) which reflects the serious stigma and discrimination they experience in the Nigerian society (Folasire, Irabor and Folasire, 2012). Research evidence from studies reveals the need for more psychosocial counselling for PLHIV as 35% of PLHIV in a study in Nigeria believe HIV is a punishment from God while 15% believed they had HIV due to witchcraft (Ajayi et al, 2013) thus revealing the need for more education to address self-esteem, God's love, and address HIV myths in support groups.

An NGO in Northern Nigeria provides one-one-on counselling and group counselling for HIV-Positive MSM which has been found to be emotionally beneficial to the lives of HIV-Positive MSM (Onuorah, 2012). Research evidence shows that some Nigerian MSM have died of AIDS-related illnesses due to the shame associated with seeking HIV services as MSM. This may point to an increasing need for psychosocial counselling in order to address self esteem, self worth, self love among HIV-Positive MSM so as to save their lives (Ezomoh and Oguntona, 2014). HIV-positive MSM may face discrimination and sexual rejection from HIV-Negative MSM which may take a toll on them emotionally which may require psychosocial support. They may also have to hide their HIV status in order to avoid discrimination and this may have negative effects on their ability to seek support. One indication is the fact that 21% of PLHIV in a study in Nigeria reported that they sometimes feel like transmitting HIV to others (Ajayi et al, 2013). This is an indication of the anger that arises as a result of the poor treatment of PLWHIV and the injustice they experience in the Nigerian society.

Goal 3.3: Prevent HIV Transmission from HIV-Positive MSM to other people

In line with the conceptual framework, the major outcome of preventing HIV transmission from HIV-Positive MSM to other people is to reduce risky behaviours and avoid unintended pregnancies (Kennedy et al, 2010). In order to achieve this, the following interventions are needed: i) Prevention counselling ii) Partner/Family HIV Testing Programs iii) Family planning education/counselling iv) Programs for PMTCT v) Needle/syringe exchange programs vi)Condom distribution vii)Mass media programs

3.3.1: Prevention Counselling

One of the ways HIV-Positive MSM can prevent sexual transmission to others is by disclosure of HIV status to their sexual partners, reducing sexual risks and addressing factors which may influence sexual risks such as substance abuse and alcohol by reducing them. About half of the PLHIV in a study in Nigeria reported that they disclosed their HIV status and found the disclosure as an empowering process (GNP+ NEPWHAN, 2011). About 10% of the PLHIV reported that their sexual partner/husband/wife did not know their status while another 10% reported that their sexual partner/husband/wife were told about their HIV status without their consent (GNP+ NEPWHAN, 2011).

Given that Kennedy et al (2010) includes HIV status disclosure as part of prevention counselling, it will be explained here. A study targeting PLHIV in Northern Nigeria revealed that 42% of participants had not disclosed their HIV status to their partner (Ajayi et al, 2013). This failure to disclose reflects the highly discriminatory environment where PLHIV may be victimized if they disclose their HIV status. There is no data on HIV disclosure among HIV-Positive MSM in Nigeria. In the general MSM population, only about 25% did an HIV test and received their result in the past 1 year (IBBSS, 2010). Only 51% of MSM reported condom use the last time they had anal sex with a man (IBBSS, 2010). In a study targeting PLHIV who are enrolled on ART in South West Nigeria, about 75% of those who were sexually active disclosed their HIV status or used condom consistently while only about 25% did not disclose their status or use condom consistently (Adebayo et al, 2014). The failure to disclose can be an impediment to prevention counselling for PLHIV and their partners on how to prevent HIV transmission and enjoy sexual pleasure.

A study on PLHIV in a clinic in Niger Delta, Nigeria found low disclosure rate among the PLHIV on ART and found that those receiving ART who were married were more likely to disclose as opposed to unmarried persons and students who had low disclosure rate (Ebuenyi et al, 2014). MSM contribute the highest percentage of new infections in Lagos and Kaduna State with 13.37% and 11.86% respectively (NACA, 2014). The Nigerian HIV Policy prioritizes prevention from PLHIV to others since there are no vaccines or cure for HIV (National Policy on HIV/AIDS, 2009 as cited in GARPR). Studies show that gay men have stereotypes about who they think has HIV or not which could cause HIV transmission (Gold, Skinner and Hinchy, 1999). This highlights the importance of honest communication among sexual partners such as disclosure of HIV status and its importance in prevention counseling.

Given the huge percentage of Nigerian MSM who do not know their HIV status (IBBSS, 2010), disclosure among HIV-Positive persons alone is not enough to prevent HIV transmission among MSM. Research shows that sexual risk reduction interventions among MSM can help reduce sexual risks among MSM (Johnson et al, 2002) and thus reducing HIV transmission. Since an average MSM in Nigerian gets married to a woman and has children and since most Nigerian MSM have sex with women (ENR, 2010), prevention counselling is important for married MSM to know their HIV status in order to enable them live positively healthy with

ART use and prevent re-infection and transmission to their male or female partners. Research shows different indicators of sexual health risks among MSM in Nigeria such as STI prevalence, HIV prevalence, high prevalence of unprotected sex, exchange of sex for money, etc. Addressing these sexual risks can help prevent HIV transmission to the female partners of MSM as well as prevent unintended pregnancies.

3.3.2: Partner/Family HIV Testing Programs

As mentioned earlier, only about 25% of Nigerian MSM have done an HIV test and know their HIV status in the last 1 year (IBBSS, 2010). Partner/family HIV testing programs are important in Nigeria because research shows that 42% of new HIV infections occur among persons who cohabit or who are married who are less likely to use condom (GARPR, 2014). As a result, a partner who previously or currently engages in high risk behaviour can easily transmit HIV to his/her stable partner who he/she practices unprotected sex with (GARPR, 2014). The uptake of HIV testing in Nigeria is low, with only about 4 million persons tested for HIV at the end of 2013 which reflects low uptake of HCT (GARPR, 2014). In a study targeting PLHIV in Northern Nigeria, 55% of them reported that VCT enabled them to know their HIV status (Ajayi et al, 2013). As a result of its benefit, one of the objectives of the NPP is to scale up HCT to enable more Nigerians know their HIV status (NACA, 2014).

GARPR (2014) data shows that MSM contributes 10.3% of new HIV infections while their female partners contribute 0.9% of new HIV infections (GARPR, 2014). Several studies show that some MSM are married and have unprotected sex with their wives or female partners (Allman et al, 2007; Merrigan at al, 2008; ENR, 2010). Partner HIV testing can help high risk groups such as MSM and their partners determine their HIV status in order to seek treatment so as to protect their health and that of their partners. One of the achievements of the NPP 2010-2012 is the introduction of HCT for MSM and other MARPS (GARPR, 2014). Only about 26% of Nigerians have ever tested for HIV (GARPR, 2014) thus revealing a huge unmet need for HCT in Nigeria. About 60% of Nigerians know where to get an HIV test and about oneninth of Nigerian health services provide HCT services (GARPR, 2014). Partner testing is important for MSM and their wives since HIV is 6 times higher among MSM older than 25 years old who are likely to be married than among those less than 25 years old (Merrigan et al, 2008). Such testing can enable MSM know their status and initiate ART if they are HIV-Positive to save their lives and also prevent further transmission.

3.3.3: Family Planning Education/Counselling

As explained earlier, since Nigerian MSM are sexually active with both men and women, have families and raise children (ENR, 2014), they also need family planning education/counseling. For instance about 20% of

MSM in Ibadan are married to women (ENR, 2010). About half of MSM in Ibadan and Lagos and about one-third of MSM in Abuja, Nigeria had sex with a woman 2 months before the study (ENR, 2010). Among those who had sex with women, about 40% was unprotected intercourse with women (ENR, 2010) which may be an indication of the need for family planning for MSM and HIV-Positive MSM in order to prevent unintended pregnancies. One of the goals of the Nigerian National HIV Plan is to provide access to family planning education/counselling for PLHIV (GARPR, 2014) by promoting the integration of HIV services with family planning services (GARPR, 2014).

The use of contraception is low among Nigerian women with 27% and 9% among married urban and rural women respectively (GARPR, 2014). Modern methods such as oral pills, condoms and injectables are used by 10% of contraceptive users as opposed to traditional methods which are used by 5% (GARPR, 2014). Most MSM studies and programs in Nigeria have younger MSM participants while the older ones who are more likely to be married and need family planning services are less likely to be reached due to their lack of interest in participating in such programs. Similarly, older MSM in Nigeria are more likely to be HIV-Positive and have a higher HIV prevalence due to more years of exposure to sexual risks than the younger ones (ENR, 2010). Family planning programs must be designed for a special target group such as MSM and HIV-Positive MSM due to their high prevalence of unprotected sex which could lead to unintended pregnancies.

3.3.4: Programs for Prevention-of-mother-to-child (PMTCT)

HIV and AIDS are major health issues which have a great impact on infant and maternal mortality rates in Nigeria (GARPR, 2014). First, about 30% of HIV-Positive pregnant women receive ART to prevent mother-to-child transmission (GARPR, 2014). Secondly, Nigeria had an HIV prevalence of 4.1% according to the HIV Sentinel survey 2010 (GARRP, 2014). PMTCT is therefore very important in Nigeria because about 260,000 children are living with HIV (GARPR, 2014). The President's Comprehensive HIV Plan had a goal of preventing mother-to-child-transmission among an estimated 250,000 HIV-Positive pregnant women and also establishing additional 2000 PMTCT and ART delivery centres in Nigeria by strengthening the coordination at the state and local government level and also increasingly engaging the private sector in PMTCT (GARPR, 2014).

A study on PLWHIV in Nigeria shows that 42% of the PLWHIV who had children had one or more HIV-Positive children (GNP+ NEPWHAN, 2011). The Nigerian AIDS response acknowledges the integration of SRH and the provision of family planning services and education as part of the strategies to address PMTCT among HIV-Positive women (NACA, 2014). Evidence shows that female partners of MSM have an HIV prevalence of

0.9% (GARPR, 2014) thus revealing the need for PMTCT among these women when they become pregnant. Some of the factors constituting barriers to PMTCT in Nigeria are poor use of ANC services among some pregnant women, deliveries by unskilled birth attendants outside health facilities and low prevalence of exclusive breastfeeding (NACA, 2010).

PMTCT is a huge priority in Nigeria since Nigeria has a burden of about one-third of all children born with HIV (GARPR, 2014). The MPPI include PMTCT among key populations in Nigeria, however, no project has targeted wives of MSM and HIV-Positive MSM in PMTCT (GARPR, 2014). PMTCT, if implemented properly in Nigeria can help prevent the 60,000 HIV-Positive children born annually (GARPR, 2014). Only about 6% of children born to HIV-Positive mothers were given ARV prophylaxis as part of PMTCT while the screening for the viral load of the children was also very low (GARPR, 2014). PMTCT ought to be an important intervention among MSM given the high prevalence of HIV among MSM In Nigeria (17.2% according to IBBSS, 2010) as compared to 4.1% in the general population since a high proportion of MSM have sex with and marry women (ENR, 2010). In Lagos, about 30% of married MSM were HIV-Positive and in Abuja, MSM over 31 years old who were likely to be married were likely to be HIV-Positive (ENR, 2010).

3.3.5: Needle/Syringe Exchange Programs

Most PWIDs in a study on MSM and PWIDs reported that they mostly buy new needles from pharmacies which they use in injecting drugs. Less than 10% of the PWID reported ever sharing needles or injecting drugs with a pre-filled syringe and about 50% of those who shared reported cleaning the needles before reusing (ENR, 2010). PWID have an HIV prevalence of 5.6% which is higher than the prevalence in the general population (4.1%). No needle/syringe exchange program targets MSM who inject drugs or HIV-Positive MSM who inject drugs in Nigeria. According to a study on PWID, about one-third of them didn't have any source of income which could mean that they may not have money for clean needles sometimes (ENR, 2010), 75% of the PWID reported injecting drugs one month before the study and they injected between 1 to 6 times per week thus revealing the number of clean needles they may need on a weekly basis. Almost 60% of the PWID studied had never been tested for HIV (ENR, 2010), Unfortunately, this study on PWIDs (ENR, 2010) did not ask questions about their sexual orientation to determine those who were MSM who inject drugs. Low HIV prevalence among drug users in Nigeria is attributed to the availability of cheap sterile needles in pharmacies which about 10 pieces costs \$1. Although some PWID reported reusing their own needles a number of times before discarding them and this could cause bacteria infections. There is no needle/syringe distribution program in Nigeria. The use of illegal drugs through needles/syringes may contribute to MSM engaging in risky sexual behaviour which could transmit HIV or cause unintended pregnancies. Some drugs shared through needles/syringes have been associated with risky sexual behaviour among MSM, including HIV-Positive MSM (CDC, 2006; Purcell et al, 2001).

3.3.6: Condom Distribution

Risky sexual behaviour is one of the drivers of the HIV epidemic. High risk sex among MSM, including HIV-Positive MSM can increase HIV transmission to other MSM and to other sexual partners who may be females. Condom distribution is important in preventing HIV transmission between MSM and their male and female partners since data from a major study shows that about one-third of Nigerian MSM had unprotected anal sex with other men 2 months before the study (ENR, 2010). Selling Sex is also common among many Nigerian MSM (ENR, 2010) due to the economic situation hence the need for adequate access to condoms for use. Between one-third and half of MSM studied in a major research reported having sex with a woman 2 months before the study and between 35-41% of the MSM has unprotected sex with women (ENR, 2010) which could lead to unintended pregnancies or even lead to the spread of HIV.

One of the objectives of the Nigerian National Policy 2014-2015 is to increase the knowledge of MSM and other key populations about the double benefits of condoms in preventing HIV transmission and unintended pregnancies and also promote lubricant use as well in order to increase its use (NACA, 2014). Condom and lubricant distribution for MSM and other key populations is also part of the Minimum Prevention Package Interventions (NACA, 2014). The NPP had a goal that by 2015, at least 80% of sexually active Nigerian men and women should use condoms consistently and correctly with casual partners (NACA, 2014). Some Nigerian MSM-friendly NGOs give free condoms and lubricants to MSM through peer educators although this only happens in a few big cities and do not target key populations in rural areas. About 21% of PLWHIV in a study in Nigeria reported that they do not like condom use (Ajayi et al, 2013). Most PLWHIV in this study (61%) have not had unprotected sex since they knew they were HIV-Positive as opposed to only 39% who have had unprotected sex since they knew they were HIV-Positive (Ajayi et al, 2013).

3.3.7: Mass media programs

Programming for HIV-Positive MSM and other MSM is largely done secretly due to the laws criminalizing homosexuality in Nigeria. Mass media programs about HIV tend to focus on heterosexuals or PLWHIV in general in Nigeria and are silent about MSM and anal sex due to legal, cultural and religious reasons. Hence, there are missed opportunities to reach out to MSM, including HIV-Positive MSM. Some MSM in rural areas may not be informed about unprotected anal sex as a risky sex since most discussions about sex on television, radio, news advertisements and other avenues focus on heterosexual sex and its relationship to pregnancy issues (Allman

et al, 2007). Therefore, high exposure of Nigerian MSM and HIV-Positive MSM in Nigeria to mass media (Merrigan et al, 2008) may not reflect in high awareness about how to reduce risky sex. Other avenues such as peer educators, parties and safe community centres seem to be more appropriate in reaching MSM in Nigeria. However, the social media such as Face Book has provided an avenue for MSM to mobilize and share information with each other through secret groups. PLWHIV in Nigeria have used different avenues such as pamphlets, posters, radio and television advertisements to increase awareness about HIV to reduce discrimination. PLWHIV in Nigeria have also gone done drama to tell their stories as a movie to address stigma and discrimination they face (IRIN Films, 2009). In countries such as Mexico and Australia, mass media have been used to campaign against homophobia and to advocate for the sexual health needs of MSM as part of their National HIV response (UNAIDS, 2006).

Goal 3.4: Increase the Agency of PLWHIV

In line with the conceptual framework, the major outcome of increasing the agency of PLWHIV is to increase their visibility and participation (Kennedy et al 2010). In order to achieve this, the following interventions are needed: i) Training of PLWHIV in advocacy methods ii) Encouragement and support for formation of advocacy groups by PLWHIV iii) Participation of PLWHIV on country level technical working groups and other policy development groups.

3.4.1: Training of HIV-Positive MSM in Advocacy Methods

The 1999 Constitution guarantees the rights of every Nigerian including PLWHIV to freedom from discrimination. In 2014, the Nigerian Government signed an anti-HIV discrimination bill into law. This victory is partly due to the advocacy efforts of PLWHIV in Nigeria over the years through NEPWHAN and other organized groups (Silverbird Television, 2014; IRIN Films, 2009; Channels Television 2014) which is backed up by support from the International community such as UNAIDS, GNP+ among other important International bodies. In recent years, Nigerian HIV-Positive MSM have also started to speak out and advocate for their rights and their health as HIV-Positive MSM and the double obstacles they face as "gay men" and as "PLWHIV" (Alimi, 2014; GistOnItNow, 2015).

Given the lots of evidence showing the serious violations PLWHIV face in Nigeria, training them in advocacy methods is important given that over 60% of PLWHIV in a study felt they had no power to make a change at the policy level regarding the violations they face (GNP+ NEPWHAN, 2011). Research evidence shows the need for more advocacies among PLWHIV which can address some of the barriers limiting their progress such as seeking legal redress and being intimidated by bureaucracy (GNP+ NEPWHAN, 2011). Advocacy is considered one of the Minimum

Prevention Intervention for PLWHIV and key populations (NACA, 2014). To enable advocacy trainings for PLWHIV to be successful, they need to be backed up with interventions such as economic Empowerment activities and other forms of capacity building (NACA, 2014). Trainings for HIV-Positive MSM will involve using research evidence which shows how anti-gay laws have reduced uptake of HIV services and contributed to increased human rights violations and more deaths of HIV-Positive MSM (Orazulike et al, 2015; Alimi, 2014; Orazulike et al, 2014). The agency of Nigerian PLWHIV and HIV-Positive MSM is necessary to challenge the shame and blame often associated with MSM and PLWHIV in Nigerian movies where HIV is often referred to as a consequence of promiscuity and MSM labelled as sexually perverted.

3.4.2: Encouragement and support for formation of advocacy groups by PLWHIV

HIV Workplace programs have provided an opportunity for PLWHIV to form advocacy groups and advocate for their rights through trainings, presentations, dialogue and raising awareness in Nigeria with PLWHIV at the forefront of these initiatives. The unacceptable conditions for PLWHIV in Nigeria have motivated PLWHIV to form associations and community meetings where they discuss issues affecting them and how to move forward in the Nigerian environment. The discrimination PLWHIV face from health workers and from the general society has encouraged advocacy by PLWHIV who have presented their cases in the parliament during public hearing. Similarly, the internet and other social media have provided opportunities for popular Nigerian HIV-Positive MSM such as Bisi Alimi, Kenny Badmus among others to advocate for the rights of HIV-Positive MSM by highlighting the intersectionality of rights that exist irrespective of sexual orientation and HIV status (Alimi, 2014; GistOnItNow, 2015).

The internet has provided avenues for MSM, including those who are HIV-Positive in mobilizing to advocate for their right to health. One major gap which exists in HIV advocacy in Nigeria is how PLWHIV groups are yet to accept HIV-Positive MSM in their groups due to homophobia. Many HIV-Positive MSM who disclosed their HIV status have faced discrimination from other PLWHIV in meetings. This constitutes a barrier to the main goal of addressing the needs of PLWHIV. The same-sex prohibition act 2013 only affected HIV response for MSM hence constituted an encouragement for Nigerian MSM to advocate for their rights since other PLWHIV in Nigeria would not support them. Given that homophobia can heighten HIV risk, increase the risk of HIV-Positive MSM to have mental health problems and limit their agency because of their sexual orientation which is criminalized, hence, the need for more advocacy on how they can live positively and enjoy their constitutional rights as Nigerians who have a right to health care.

3.4.3: Participation of PLWHIV in country level technical working groups and other policy development groups

Over 60% of PLWHIV believed they do not have power to influence policy making (GNP+ NEPWHAN, 2011) thus sending messages on the importance of the participation of PLWHIV including key populations (HIV-Positive MSM, HIV-Positive sex workers, HIV-Positive PWID). UNAIDS and other bodies have advised Governments to actively engage PLWHIV, including MSM and HIV-Positive MSM in National AIDS Agencies in the entire process of planning, designing, implementation, evaluation, among others (UNAIDS, 2006). Empowerment and capacity building is one of the Minimum Prevention Package interventions for key populations (NACA, 2014) and this can only happen when PLWHIV are adequately engaged in full participation. Representatives of PLWHIV are sometimes involved as part of the advisory team to the National Agency for the Control of AIDS which is commendable. The participation of MSM is limited due to the criminalization of homosexuality. There was an instance when Nigerian religious leaders threatened to boycott a HIV stakeholder's meeting because MSM were invited to the meeting (Spina, 2010). Nigerian PLWHIV have made some progress in participation over the years including in International AIDS Conferences (Here I am Campaign (2012). The participation of PLWHIV including HIV-Positive MSM, HIV-Positive sex workers and HIV-Positive PWID in technical working groups is important to enable these sub-populations express the needs confronting their subgroups to encourage inclusion and equity.

3.5:Limitations of the Study

As mentioned earlier, the limited studies on HIV-Positive MSM in Nigeria is a limitation of this study, however, this limitation was surmounted by complementing the studies on HIV-Positive MSM with studies on 'MSM in Nigeria' and studies on 'PLHIV in Nigeria' in order to build the arguments so as to better understand the situation. This was done because HIV-Positive MSM are 'MSM' and are also 'PLHIV' Nigerians. Hence the information from the diverse sources on 'MSM' and 'PLHIV' were summed up with the information on 'HIV-Positive MSM' in order to have a better understanding of the situation. There were limited published papers found in peer reviewed journals on HIV-Positive MSM in Nigeria which were all utilized for this study. In other to complement that, other sources of data MSM in Nigeria **HIV-Positive** such as abstracts, conference presentations, reports, experience sharing among HIV-Positive MSM in Nigeria were utilized. Some studies on HIV-Positive MSM outside Nigeria were also referenced. The Nigerian context also contributes an additional limitation to the study with regards to being unfriendly for MSM and which as a result reduces the number of MSM accessing HIV testing and the number of HIV-Positive MSM accessing services. However, the study utilized available information to understand the situation and identify gaps in the system.

Chapter 5.1: Discussion

This discussion reflects on the different components of the conceptual framework and how they influence each other with regards to the objectives of the study. It focuses on some of the major lessons learnt by using this conceptual framework to study HIV-Positive MSM in Nigeria and situating it in the Nigerian context with regards to their experiences as MSM and PLHIV. It also touches on the effectiveness of this conceptual framework in Nigeria and identifies some gaps in the findings and the conceptual framework. The different components of the framework are related to each other and can all contribute to the well-being of HIV-Positive MSM. The study revealed how homophobia and the lack of access to HIV services has constituted a serious impediment to Positive Prevention for HIV-Positive MSM in Nigeria, some of whom have died over the years often due to late HIV diagnosis.

The climate of intolerance against MSM has contributed to MSM expressing their sexuality in secret and pretending to be heterosexuals which has health implications as they may miss the appropriate MSMoriented health care or health messages meant to save their lives. Most MSM interventions reach younger MSM who benefit from such services. Many older MSM in Nigeria who are married and who have higher chances of being HIV-Positive are not easily reached by MSM-targeted HIV programs as they may not feel comfortable attending meetings with younger MSM due to their societal status, marital status or age. The HIV-Positive MSM I saw receiving treatment in a MSM-friendly NGO in Nigeria are majorly between ages 20 and 30 years. Innovative approaches are needed to reach the older HIV-Positive MSM or probably set up a special group for HIV-Positive MSM and other MSM who are above 35 years old. Internet and social media can be harnessed to target MSM and HIV-Positive MSM who do not identify as gay with HIV information about how to seek health care since internet use in general is high among Nigerian MSM (ENR, 2010).

HIV testing for all MSM is the key to determining one's status and initiating ART as soon as possible before it is too late. Nigeria still has more work to do in increasing awareness about how people can live positively for several years with ART. The unnecessary fear of HIV contributes to the fear of getting tested or seeking HCT among some MSM. Despite the awareness about HIV through mass media over the years in Nigeria, the extent of rejection and ostracism of HIV-Positive persons by families, friends, neighbours and co-workers is still shocking. This has contributed to depression, low self esteem, among other emotional and mental health challenges among PLHIV such as committing or attempting suicide. There is an unmet need for the medical management of depression among MSM, HIV-Positive MSM and PLWHIV in

general in Nigeria as the service is missing in many hospitals and MSM-friendly NGOs who focus more on one-on-one counselling and support for their fellow PLHIV which may not be enough for HIV-Positive MSM and other MSM who are terribly depressed or suicidal. It may also be important to treat depression among some HIV-Positive MSM and other PLWHIV to enable their mental well-being so as to influence their ART adherence. Treating depression is also important in avoiding risky sexual behaviour which is associated with psychosocial problems.

It is surprising that PLHIV face discrimination from places where they expect to be welcomed and supported such as health care centres and churches in Nigeria (Ajayi et al, 2013; PHR, 2006). Given the context in which PLWHIV live in which many reported being mistreated by health workers who did not care for them as they ought to due to the fear of being infected with HIV on their job (PHR, 2006), there is a need to organize sensitivity trainings for health workers and providing them with the facilities needed to care for PLWHIV in order to avoid the excuse made by many for discriminating against PLWHIV (PHR, 2006). Given the high unemployment that exists among MSM and the high poverty which exists in Nigeria, many MSM sell sex for money or exchange sex for financial benefits which could put their health at risk.

Hence, for Positive Prevention to thrive among HIV-Positive MSM and other MSM, their economic and welfare needs must be prioritized through the availability of free accommodation for homeless MSM and free skill acquisition trainings and livelihood opportunities for unemployed and low-income MSM. Some missing components in the conceptual framework are i)lubricant ii) economic interventions/livelihood opportunities to encourage financial independence iii) no interventions to address intimate partner violence which may occur among HIV-Positive MSM and their partners which can be associated with risky sex iv) provision of safe homes/temporary shelter for homeless HIV-Positive MSM to prevent them from engaging in risky sex for shelter.

The success of this conceptual framework largely depends on structural and social factors such as a tolerant and non-discriminatory environment where HIV-Positive MSM can feel comfortable to disclose their HIV and MSM status without the fear of being persecuted or ostracised. An intolerant environment can reverse the possible benefits that can be derived of the interventions in this framework as shown in some studies where some angry Nigerian PLHIV reported that they sometimes wished they could infect the highly discriminatory health workers who mistreated them as revenge. Recognizing the social injustices facing PLHIV, their trainings on advocacy needs to be backed up with alliance building with lawyers, police, the media, religious leaders, health workers, among others in implementing the anti- HIV discrimination law and bringing those who discriminate against PLHIV to justice. Avenues such as television and movies are needed to showcase the lives of Nigerian PLHIV

who are living healthy after many years of being HIV-Positive to counter the dominant stereotype of HIV as a "death sentence".

This conceptual framework helps to realize our strong and weak points in Prevention interventions for HIV-Positive MSM in Nigeria with a view to improving. Some of the areas where interventions for HIV-Positive MSM are lacking in Nigeria are medical management of depression, mass media programmes, PMTCT, opioid substitution therapy and substance abuse programs for HIV-Positive MSM. Some of these components may become relevant in future if more researches reveal the need for them. Trainings of HIV-Positive MSM is also lacking as most trainings of PLWHIV target heterosexual NEPWHAN members. There is a need for HIV-Positive MSM to reach out to NEPWHAN and advocate for their acceptance in the PHIV community in order to allow all PLHIV to work together and advocate for their rights irrespective of their differences in sexual orientations.

One way this framework can work is through integration as suggested by the Nigerian HIV Policy. Positive Prevention Programs targeting HIV-Positive married MSM should take steps on how to encourage disclosure, testing for the wives of the MSM, family planning and psychosocial counselling for the couple and PMTCT counselling. All the components need to be prioritized for proper integration since they complement one another. Nutritional support for instance helps the immune system and may encourage PLHIV to take their ART. The use of water guard to purify water can help to prevent opportunistic infections which could suppress the immune system and increase the likelihood of transmitting the infection.

Since the growing number of MSM living with HIV in Nigeria remain sexually active, this means there are more MSM living with HIV who may potentially be at risk of contracting other strains of the virus or other STIs which may additionally endanger their health and their lives. Among the increasing number of HIV-Positive MSM in Nigeria who face stigma, discrimination and other challenges, some may be confronted with psychosocial problems which may further put them at risk of engaging in risky sexual behaviours which may put themselves or their partners at risk. If the health needs of HIV-Positive MSM are not properly met, more HIV-Positive MSM may be at risk of developing AIDS-related illnesses in future which may affect their lives and the health of their partners. This highlights the importance of understanding the health needs of HIV-Positive MSM especially since HIV-Positive MSM are entitled to HIV treatment and adequate health care as their heterosexual counterparts.

5.2: Conclusion

This study is one of the first to understand the Positive Health Dignity and Prevention needs of Nigerian HIV-Positive MSM. It is a first attempt at understanding the situation of HIV-Positive MSM and how their health and

rights can be improved. The findings of this study can help to improve services for HIV-Positive MSM in Nigeria through research and program implementation. The unfavourable legal context and highly stigmatizing environment has constituted barriers to accessing health care for HIV-Positive MSM. Nevertheless, MSM-friendly NGOs which run HIV clinics for MSM and HIV-Positive MSM have provided friendly environments for HIV-Positive MSM and other MSM to access HIV services in the few big cities where they exist. The study revealed some missing interventions necessary for Positive Health Dignity and Prevention Needs of HIV-Positive MSM and the importance of integrating the interventions to achieve more impacts so as to leave no stone unturned. The study identified the need for sensitivity trainings for health workers on care for PLHIV and MSM while also identifying the need to provide transportation services and other services to address barriers to accessing HIV services. Increased agency of PLWHIV in advocating for their rights and demanding for respect and increased access to ART is needed to avoid violations against them and improve their well-being. The study also identified gaps in the framework with respect to the Nigerian setting and HIV-Positive MSM which may need to be prioritized to achieve the well-being of HIV-Positive MSM.

5.3: Recommendations:

In order to promote the overall physical and mental health, rights and well-being of HIV-Positive MSM and to prevent HIV transmission to others in Nigeria, the following recommendations are made to the National AIDS Program, PLWHIV groups, health care providers and other stakeholders.

- 1. HIV-Positive MSM in Nigeria are advised to take steps to continue to fight for their right to health as guaranteed in the Nigerian 1999 Constitution and to challenge the health inequity they face as both MSM and PLHIV. They can do this by mobilizing PLHIV groups and gaining their solidarity and jointly advocating for the repeal of the laws criminalizing homosexual acts among consenting adults. The discrimination HIV-Positive MSM face in the PLHIV community in Nigeria can distract PLHIV in general from their bigger goals. These two groups (MSM and PLHIV) can also come together to challenge the mistreatment of PLHIV in Nigeria in general. MSM, PLHIV, including HIV-Positive MSM need to continually advocate for their right to universal access which is one of the goals of the National AIDS Program.
- 2. The National AIDS Agency and the Ministry of Health should continually educate Nigerians about Positive HIV Living by telling the stories of PLHIV who remain healthy, strong and relevant to the society after several years. The best medium to make the most impact is through movies or soap operas on television and radio programs which millions of Nigerians watch and listen to regularly.

The negative attitude of many Nigerians towards PLHIV is highly surprising and deserves to be engaged immediately to address this serious stigma because it has effects on the mental health of HIV-Positive MSM and other PLHIV. Acts such as ostracism of PLHIV by families, friends and workplaces need to brought to an end through education about PLHIV and enforcement of anti-HIV discrimination laws. If this is not done, many PLHIV and HIV-Positive MSM may continue to have psychosocial problems. Such interventions need to address the dominant stereotype about PLHIV as promiscuous persons who are often blamed. Instead, religious leaders should continually educate and encourage empathy, compassion and tolerance for vulnerable groups in Nigeria such as key populations and PLHIV.

- 3. Sensitively conducted researches are needed to inform the HIV community about the unmet Positive Prevention needs of HIV-Positive MSM and how to address them. This can be through a combination of quantitative and qualitative studies targeting HIV-Positive MSM, their health care providers and their care givers in order to understand how to better keep them physically and mentally healthy and to prevent further HIV transmission to others so that they can contribute positively to the society irrespective of their HIV status. Studies can also explore AIDS-related mortality and OIs among HIV-Positive MSM in order to unpack the different factors which contributed to it so as to avoid design strategies to avoid them in future.
- 4. MSM-friendly health centres providing services for HIV-Positive MSM would make better impacts by integrating the different health and rights interventions in the Positive Prevention Framework. The current silence about couple voluntary counselling and testing (CVCT) and PMTCT among married HIV-Positive MSM who access services should be addressed. These MSM-friendly centres are advised to collaborate with psychiatrists and psychotherapists to provide treatment for HIV-Positive MSM and other MSM who have depression and PTSD due to the violations they face in the society. Without treatment of depression, and other mental health challenges among HIV-Positive MSM, the other interventions such as ART adherence, safer sex behaviour may be negatively affected as studies have shown associations between these issues.
- 5. Since HIV-Positive MSM majorly remain sexually active despite their HIV status, they need to be taught about open communication with

- sex partners, safer sex and how to achieve sexual pleasure without increasing their risk of contracting other strains of the virus or contracting other STIs. Such trainings can make more impacts if the HIV-Positive MSM attends with their sex partners.
- 6. HIV-Positive MSM and other MSM should continue to advocate for their meaningful engagement in the National AIDS Program and their different HIV projects across the country. This cannot only provide capacity building for HIV-Positive MSM, it can increase their power by providing them with networking opportunities and more skills to advocate for their rights. In addition, it can provide livelihood opportunities for HIV-Positive MSM as they can earn a living from this cause and also utilize their skills in helping their community.
- 7. Programs should be developed for HIV-Positive MSM who may be further vulnerable such as HIV-Positive MSM who sell sex to other men, HIV-Positive MSM who inject drugs or low-income HIV-Positive MSM living in rural areas which are far from health services among others in order to tailor such programs to their specific needs.
- 8. Social media and internet constitutes a great avenue to reach out to MSM, including HIV-Positive MSM with Positive Prevention messaging in this 21st century where many MSM in Nigeria meet sexual partners on the internet through grinder, 2go, gayromeo, gaydar and several other internet sites. These interventions can both address the Positive Prevention needs of HIV-Positive MSM and encourage other MSM to get tested and know their status in order to stay healthy since evidence shows high use of internet among Nigerian MSM.
- Social marketing interventions need to ensure more availability of cheaper or free lubricants and condoms so as to enable HIV-Positive MSM and other MSM enjoy sexual pleasure while they protect their health and that of their partners as well.
- 10. The Nigerian Government has to increase ART availability as they have promised by increasing the National funding for HIV to enable more PLHIV be initiated on ART before it is late.

References

Adebayo, A. M., Ilesanmi, O. S., Omotoso, B. A., Ayodeji, O. O., Kareem, A. O., & Alele, F. O. (2014). Disclosure to sexual partner and condom use among HIV positive clients attending ART clinic at a tertiary health facility in South West Nigeria. *The Pan African medical journal*, 18.

Ajayi, B,. Moses, A., Gashau, W., Omotara, B,. (2013) *Assessment of Knowledge, Perception and Attitude of People Living With HIV/AIDS toward HIV/AIDS in Maiduguri, Northeast-Nigeria*. The Internet Journal of Infectious Diseases. Volume 12 Number 1.

Akande TM, Monehin JO. Health management information system in private clinics in iIorin, Nigeria. Nig Med Pract. 2004; 46: 102–7.

Alimi, B. (2014) There should never be another Ibrahim. TEDxBerlin. https://www.youtube.com/watch?v=BQnOTJH3w4s&spfreload=10

Allman, D., Adebajo, S., Myers, T., Odumuye, O., & Ogunsola, S. (2007). Challenges for the sexual health and social acceptance of men who have sex with men in Nigeria. *Culture, health & sexuality*, 9(2), 153-168.

Baral, S. D., Ketende, S., Schwartz, S., Orazulike, I., Ugoh, K., Peel, S. A., ... & Charurat, M. (2015). Evaluating respondent-driven sampling as an implementation tool for universal coverage of antiretroviral studies among men who have sex with men living with HIV. *JAIDS Journal of Acquired Immune Deficiency Syndromes*, 68, S107-S113.

CDC (2006). Methamphetamine and HIV risk among men who have sex with men [fact sheet]. Available at http://www.effectiveinterventions.org

CDC (2013) Top 10 Causes of Death in Nigeria. http://www.cdc.gov/globalhealth/countries/nigeria/why/

Channels Television (2014) HIV/AIDS Scourge: NEPWHAN Decries Increase In HIV Related Deaths. https://www.youtube.com/watch?v=oTrnRJrlO M

Ebuenyi, I. D., Ogoina, D., Ikuabe, P. O., Harry, T. C., Inatimi, O., & Chukwueke, O. U. (2014). Prevalence pattern and determinants of disclosure of HIV status in an anti retroviral therapy clinic in the Niger Delta Region of Nigeria. *African journal of infectious diseases*, 8(2), 22-26.

Eguzo, K. N., Lawal, A. K., Eseigbe, C. E., & Umezurike, C. C. (2014). Determinants of Mortality among Adult HIV-Infected Patients on Antiretroviral Therapy in a Rural Hospital in Southeastern Nigeria: A 5-Year Cohort Study. *AIDS research and treatment*, 2014.

Enhancing Nigeria's HIV/AIDS Response (ENR 2010) Prevalence of Sexually Transmitted Infections among Men who have Sex with Men and Injecting Drug Users & Validation of Audio Computer-Assisted Self Interview (ACASI) in Abuja, Lagos and Ibadan, Nigeria.

Ezomoh, R and Oguntona, S (2014). Palliative care and support group services for MSM living with HIV in Lagos State, Nigeria, 19th International AIDS Conference Abstract no. MOPE467. Available at https://www.aids2014.org/Abstracts/A200744046.aspx

Federal Government of Nigeria (2009). National Policy on HIV/AIDS.

Federal Republic of Nigeria FRON (2012) 'Global AIDS Response Country Progress Report, Nigeria' - See more at: http://www.avert.org/hiv-aids-nigeria.htm#sthash.UvwfwdU4.dpuf

Federal Republic of Nigeria FRON (2014) <u>Global AIDS Response Country Progress Report (GARPR)</u>, <u>Nigeria</u>

Federal Republic of Nigeria FRON (2008-2012) National Human Resources for Health Strategic Plan

Folasire, O. F., Irabor, A. E., & Folasire, A. M. (2012). Quality of life of People living with HIV and AIDS attending the Antiretroviral Clinic, University College Hospital, Nigeria: original research.

GHAIN (2011). GHAIN Support to HIV Care and Support in Nigeria. End of Project Monograph.

<u>GistOnItNow</u> (2015) HIV positive Kenny Badmus comes out as gay on a Facebook post. https://www.youtube.com/watch?v=SpMe8cx7 MA&spfreload=10

GNP+, NEPWHAN (2011) HIV Leadership Through Accountability Program: GNP+, NEPWHAN. PLWHIV Stigma Index Nigeria. Country Assessment. Amsterdam

Gold, R. S., Skinner, M. J., & Hinchy, J. (1999). Gay men's stereotypes about who is HIV infected: a further study. *International journal of STD & AIDS*, 10(9), 600-605.

Hagen-Zanker, J and Holmes, R (2012). Social Protection in Nigeria. Synthesis Report. Overseas Development Institute, UK.

Here I am Campaign (2012) Here I Am: Abosede, from Nigeria, shares her HIV experiences. https://www.youtube.com/watch?v=T6V9EKNZ9IU&spfreload=10

HIV and AIDS estimates (2013) Nigeria. http://www.unaids.org/en/regionscountries/countries/nigeria

HIV/STI Integrated Biological and Behavioural Surveillance Survey (IBBSS 2010)

Horvath, T., Azman, H., Kennedy, G. E., & Rutherford, G. W. (2012). Mobile phone text messaging for promoting adherence to antiretroviral therapy in patients with HIV infection. *The Cochrane Library*.

IRIN Films (2009) Heroes of HIV - The TV Presenter. https://www.youtube.com/watch?v=GPdqk3g6_W4

Iyare (2003). We're here to stay, Gay movement declared. Interview with the Late Dare Odumuye. http://www.nigeriahivinfo.com/inthenews/news/feeds.php?article=6

Jedy-Agba, E., & Adebamowo, C. (2012). Knowledge, attitudes and practices of AIDS associated malignancies among people living with HIV in Nigeria. *Infectious agents and cancer*, 7(1), 28.

Johnson, W. D., Hedges, L. V., Ramirez, G., Semaan, S., Norman, L. R., Sogolow, E., ... & Diaz, R. M. (2002). HIV prevention research for men who have sex with men: a systematic review and meta-analysis. *JAIDS-HAGERSTOWN MD-*, 30, S118-S129.

Kennedy, C. E., Medley, A. M., Sweat, M. D., & O'Reilly, K. R. (2010). Behavioural interventions for HIV positive prevention in developing countries: a systematic review and meta-analysis. *Bulletin of the World Health Organization*, 88(8), 615-623.

Merrigan, M., Azeez, A., Afolabi, B., Chabikuli, O. N., Onyekwena, O., Eluwa, G., ... & Hamelmann, C. (2010). HIV prevalence and risk behaviours among men having sex with men in Nigeria. *Sexually transmitted infections*, sti-2008.

NACA (2014) National HIV/AIDS Prevention Plan Nigeria NACA

NACA (2010). National HIV/AIDS policy review: report of desk review and stakeholders' interaction in Abuja, Nigeria

National Health Insurance Scheme Decree No 35 of 1999. Laws of the Federation of Nigeria. [Last accessed on 2010 Nov 6]. Available from: http://www.nigeria-

law.org/National%20Health%20Insurance%20Scheme%20Decree.htm

Nollygrio (2014) Man Commits Suicide After Discovering He Is HIV Positive. https://www.youtube.com/watch?v=Rgsq1gUo7pE&spfreload=10

Ofem, T (2008). Sexual Behavior and Characteristics of Men who have Sex with Men in Abuja and Lagos, Nigeria. Report of In-depth Interviews Conducted by Family Health International/GHAIN.

Okanlawon, K., Adebowale, A. S., & Titilayo, A. (2013). Sexual hazards, life experiences and social circumstances among male sex workers in Nigeria. *Culture, health & sexuality*, 15(sup1), 22-33.

Olalekan, A. W., Akintunde, A. R., & Olatunji, M. V. (2014). Perception of Societal Stigma and Discrimination Towards People Living with HIV/AIDS in Lagos, Nigeria: a Qualitative Study. *Materia socio-medica*, 26(3), 191.

Omoruan AI, Bamidele AP, Phillips OF. Social health insurance and sustainable healthcare reform in Nigeria. Ethno Med. 2009;3:105–10.

Onuorah, K (2012). Caring for men who have sex with men (MSM) living with HIV in Kaduna State Nigeria, 19th international AIDS conference. Poster Exhibition number MOPE515. Available at http://pag.aids2012.org/abstracts.aspx?aid=1671

Orazulike,IK., Adeniyi,J., Stanley,O., Ononaku U., Kalu D., Doroh A., Akolo C., Kennedy S., Baral,S., Charurat M., (2014). Assessing policy impact on HIV intervention targeting MSM in Abuja, Nigeria. 20th international AIDS Conference, Melbourne, Australia, http://pag.aids2014.org/Abstracts.aspx?AID=5120

Orazulike, I., Adeniyi ,J., Nnolum, E and Ibe, B. (2015) The Challenges with management of HIV infection where the law criminalizes MSM: A Case Study of MSM Population in Abuja, Nigeria. IAS Vancouver Canada

Population Council. 2012. "Estimating the Population of Male Sex Workers in Nigeria using Capture-Recapture Method." Evidence for Action Quarterly Newsletter 1: 1–14, Abuja, Nigeria.

Purcell, D. W., Parsons, J. T., Halkitis, P. N., Mizuno, Y., & Woods, W. J. (2001). Substance use and sexual transmission risk behavior of HIV-positive men who have sex with men. *Journal of substance abuse*, *13*(1), 185-200.

Physicians for Human Rights PHR (2006) Nigeria Access to Health care for People Living With HIV and AIDS. Cambridge, Massachusetts.

Schwartz, S. R., Nowak, R. G., Orazulike, I., Keshinro, B., Ake, J., Kennedy, S., ... & TRUST Study Group. (2015). The immediate effect of the Same-Sex Marriage Prohibition Act on stigma, discrimination, and

engagement on HIV prevention and treatment services in men who have sex with men in Nigeria: analysis of prospective data from the TRUST cohort. *The Lancet HIV*, 2(7), e299-e306.

Silverbird Television (2014) HIV Aids: People living with HIV AIDS lament non availability of drugs. https://www.youtube.com/watch?v=T609zxU-mjo

Spina, A. 2010. Nigeria's Mixed Epidemic: Balancing Prevention Priorities Between Populations. Case Study Series. Arlington, VA: USAID's AIDS Support and Technical Assistance Resources, AIDSTAR-One, Task Order 1.

Stall, R., Mills, T. C., Williamson, J., Hart, T., Greenwood, G., Paul, J., ... & Catania, J. A. (2003). Association of co-occurring psychosocial health problems and increased vulnerability to HIV/AIDS among urban men who have sex with men. *American journal of public health*, 93(6), 939-942.

Steinberger R, Fuart F, van der Goot E, Best C, von Etter P, Yangarber R. Text mining from the web for medical intelligence. In: Perrotta D, Piskorski J, Soulie-Fogelman F, Steinberger R, editors. In: Mining Massive Data Sets for Security. Amsterdam, the Netherlands: OIS Press; 2008.

Suthar, A. B., Granich, R., Mermin, J., & Van Rie, A. (2012). Effect of cotrimoxazole on mortality in HIV-infected adults on antiretroviral therapy: a systematic review and meta-analysis. *Bulletin of the World Health Organization*, 90(2), 128-138.

Tabatabai, J., Namakhoma, I., Tweya, H., Phiri, S., Schnitzler, P., & Neuhann, F. (2014). Understanding reasons for treatment interruption amongst patients on antiretroviral therapy–A qualitative study at the Lighthouse Clinic, Lilongwe, Malawi. *Global health action*, 7.

The Economist (2014). Almost nobody wants to help: Homosexuals with HIV/AIDS are struggling to survive. Lagos, June27.

UNAIDS (2006). HIV and sex between men. A Policy Brief.

WHO (2014) Country cooperation strategy at a glance. Nigeria. http://www.who.int/countryfocus/cooperation_strategy/ccsbrief_nga_en.pdf

WHO (2015) Global Health Observatory. Nigeria. http://www.who.int/countries/nga/en/

World Bank (2014) World Bank Indicators. Nigeria Health Services. http://www.tradingeconomics.com/nigeria/out-of-pocket-health-expenditure-percent-of-private-expenditure-on-health-wb-data.html

World Bank (2015) Nigeria. Data. http://data.worldbank.org/indicator/SI.POV.GINI