

**Factors influencing access to and utilization of HIV services
Among Men who have Sex with Men in Egypt**

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Egypt

50th International Course in Health Development (ICHHD)
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Development Policy & Practice/
Vrije Universiteit Amsterdam

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Among Men who have Sex with Men in Egypt**

A thesis submitted in partial fulfillment of the requirement for the degree
of Master of Public Health


By
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Acronyms

ARE	Arab Republic of Egypt
ART	Antiretroviral Therapy
ARV	Antiretroviral
BCC	Behavioral Change Communication
Bio-BSS	Biological and Behavioral Surveillance Survey
CCM	Country Coordinating Mechanism
CCO	Curative Care Organization
CPHL	Central Public Health Laboratory
CSO	Civil Society Organization
DHS	Demographic and Health Survey
FHI	Family Health International
GDP	Gross Domestic Product
GNI	Growth National Income
HIO	Health Insurance Organization
IDU	Injecting Drug User
IEC	Information, Education and Communication
IHD	Ischemic Heart Disease
MARP	Most At Risk Population
MDG	Millennium Development Goal
M&E	Monitoring and Evaluation
MENA	Middle East and North Africa
MOA	Ministry of Agriculture
MOE	Ministry of Education
MOF	Ministry of Finance
MOH	Ministry of Health
MOHE	Ministry of Higher Education

MOI	Ministry of Interior
MOSA	Ministry of Social Affairs
MSM	Men who have Sex with Men
MTCT	Mother To Child Transmission
NAP	National AIDS Program
NASA	National AIDS Spending Assessment
NCD	Non Communicable Disease
PITC	Provider Initiated Testing and Counseling
PLHIV	People Living with HIV
PPP	Purchasing Power Parity
STI	Sexually Transmitted Infection
THE	Total Health Expenditure
THO	Teaching Hospital Organization
UNODC	United Nations Office on Drug and Crime
USAID	United states Agency for International development
USA	United States of America
VCT	Voluntary Counseling and Testing
WB	World Bank

Key definitions:

Access:

The match between characteristics and expectations of consumer and supplier and it has five dimensions (5 As): Availability, Accessibility, Affordability, Acceptability and Accommodation (Penchansky and Thomas 1981)

Utilization

Utilization is defined as percentage of population that use a particular service in a particular year (Berg, 2011 as cited by Ahmed, 2011)

Stigma

Stigma is defined as a social label that adjusts the way how people view themselves and viewed by others, and results in creating boundaries between people who are affected by a particular condition and those who are not (Wegelin M, 2014).

Homosexual/Homosexuality

This term refers to any person who has sex and/or sexual desire or attraction to people of the same sex (UNAIDS, 2011a).

MSM

MSM is an acronym refers to Men who have Sex with Men regardless of their sexual identity or whether they have sex with women or not (UNAIDS, 2011a).

Gay

It is self identified term refers to same sex attraction, behavior and social identity (UNAIDS, 2011a).

Bisexual

It self identified term refers to any person who has sex and/or attracted to both women and men (UNAIDS, 2011a).

Discrimination:

Distinction against a person not based on objective justification which results in unfair and unjust treatment of that person because he belongs or believed to belong to a particular group (Maluwa *et al.* 2002).

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Abstract:

Background: In the last decade, HIV epidemic in Egypt changed from low prevalence to concentrated epidemic among MSM and IDUs. However, MSM are still neglected and underserved which results in low access and utilization of HIV related services among them.

Objective: The aim of the study is to explore factors influencing access to and utilization of HIV preventive related services among MSM in Egypt in order to make recommendations to The National AIDS Program to improve HIV program implementation.

Methods: Literature review of published and unpublished data sources. The analysis was made using adapted framework from Andersen's Behavioral Model of Health Services Utilization.

Findings: The legal context, stigma, misconceptions about HIV and AIDS, low risk perception, young age, and the limited role of civil society are the main barriers of access to HIV related services among MSM, while other factors such as knowledge of HIV and AIDS, affordability and marital status might have low effect on access to HIV services.

Conclusion and Recommendations: Access to and utilization of HIV services among MSM remain low. Legal, social and cultural environment are important factors influencing the ability of MSM to access and utilize services. The study recommends involvement of MSM and NGOs in the national HIV planning and management, reviewing policies and mobilizing resources. More researches on the epidemiology and risk factors among MSM are required.

Key words:

HIV, MSM, Egypt, Middle East, developing countries, stigma, access, and utilization

Word count: 11,425

Introduction:

Since 2007, I have been working in the National AIDS program at the Ministry of Health in Egypt. First, I was responsible of the Information, Communication, and Education (IEC) component. At that time I received several trainings on HIV and AIDS inside and outside the country. In 2011, I was selected to be the head of Monitoring and Evaluation unit till joining this master degree at Royal Tropical Institute. During this period I had the opportunity to work with several local and international organizations and participate in many international events which increased my interest to work in the field of HIV as a global disease as well as a public health problem in Egypt.

In the last decade, HIV epidemic in Egypt has turned from low to concentrated epidemic among MSM and IDUs. In this study, I am focusing on MSM as a key driver in HIV epidemic in the country. The aim of this study is to explore the factors influencing access to and utilization of HIV services among MSM in Egypt.

Based on my work experience, a lot of efforts have been done in response to HIV epidemic as a major public health problem but still there is a need for better understanding and addressing the needs of this key population.

This study is based on literature review and structured into six chapters; **Chapter One** presents general background about Egypt, **Chapter Two** includes the problem statement and method used in this study, **Chapter Three** presents the findings, **Chapter Four** shows best practices in other countries, **Chapter Five** is the discussion, and **Chapter Six** includes conclusion and recommendations.

Chapter I: Background Information about Egypt:

This chapter includes background information about Egypt: geography and topography, demographic characteristics of population, sociocultural context, economy, political background, health status, brief description of Egyptian health system and the National AIDS Program.

1.1 Geography and topography of Egypt:

The Arab Republic of Egypt (ARE) is located at the northeast corner of Africa with a total area of 1,001,449 square kilometers mostly desert area (UNDP, 2011). The history of Egypt and its strategic location give Egypt political influence especially in the Middle East and North Africa (MENA) region.

Egypt is bordered by the Mediterranean Sea in the north, Libya in the west, North Sudan in the south and Palestine (including Gaza Strip)/ Israel in the east. The distance from north to south is 1,085 km and from east to west is 1,255 km (UNDP, 2011). The River Nile crosses Egypt from south to north and constitutes the most cultivated land.

Egypt is divided into four regions: the Nile valley and Delta which account for 4% of the total area in which the majority of population lives, Sinai Peninsula accounts for around 6%, the Eastern and Western deserts (90%) of the total area (UNDP, 2011).

Nile Valley or **Upper Egypt** extends from Aswan in the south to Cairo while Nile Delta or **Lower Egypt** is the northern part of the country.

1.2 Demographic characteristics of the population:

Egypt is the most populated country in MENA region. In 2012, the total population was estimated at 82.1 million with estimated 44% of population living in rural areas. The average annual growth rate is 1.6% and total fertility rate is 2.8. Male to female ratio at birth is estimated at 1.03 whereas the life expectancy at birth is 71.2 years (UNDP, 2014).

1.3 Sociocultural context:

Almost 99.6% of Egyptians are of Egyptian ethnic group as of 2006 national census. The official language of Egypt is the Modern Standard Arabic, while the spoken languages are: Egyptian Arabic (68%), Saidi Arabic (29%), Bedawi Arabic (1.6%), Sudanese Arabic (0.6%), Domari (0.3%), Nobiin (0.3%), Beja (0.1), Siwi and others. Islam is the predominant religion representing 90%, christian (10%). Muslims are predominantly Sunni and the majority of Christians are Coptic Orthodox. Other Christians include Armenian Apostolic, Catholic, Maronite, Orthodox, and Anglican) (SIS, 2011). Male dominance is high in Egypt and they represent almost three quarters of the labour force (UNDP, 2014).

Egypt has been the cultural trend-setter of the Arabic-speaking world since decades, and contemporary Arabic and Middle-Eastern culture is heavily

influenced by Egyptian literature, music, film and television. Egyptian identity evolved in the span of a long period of occupation to accommodate Islam Christianity and Judaism, in addition to the new Arabic and its spoken descendant Egyptian Arabic.

1.4 Economic context:

Egypt is classified economically as low middle country, with 25.2% of the general population under poverty line (PPP \$2.00/day) (UNDP, 2014). Its economy depends mainly on agriculture, tourism, petroleum although classified as a resource poor country due to its small production and import of petroleum), and Suez Canal revenues, in addition to Remittances from more than three millions Egyptian working overseas mainly in the Persian Gulf (UNDP, 2011). After The considerable improvement of the economic conditions in Egypt due to the adoption of liberal economic policies, the two successive revolutions in January 2011 and June 2013 had negative impact on the economy due to the associated civil unrest and demonstrations.

In 2012 the Gross Domestic Product (GDP) was estimated at 262.8 billion with GDP growth of 2.2% and the growth national income (GNI) per capita was 10.400 USD (WB, 2014).

1.5 Political background:

Egypt is under social and political transitions since the era of Arab spring and the first revolution in January 25, 2011 which ousted President Mubarak and toppled regime lasted for more than thirty years. Since that date Egypt is in a state of political and economic turmoil.

1.6 Health Status of the population:

A lot of efforts have been made to improve the health status of the population and achieve the Millennium Development Goals (MDGs) especially regarding the reduction of maternal and child mortality (WHO, 2010). With Regard to burden of diseases; hepatitis C and B are the major public health threats. According to the last Demographic and Health Survey (DHS) in 2008, the prevalence of hepatitis C was estimated at 9.8% in the general population which is the highest prevalence in the world (El-Zanaty and Way, 2009). However, the population is suffering from high morbidity and mortality from non communicable diseases (NCDs) compared with other infectious diseases. The main causes of death are Ischemic Heart Diseases (IHDs) and stroke. The following table 1 demonstrates the top ten causes of death in Egypt.

Table (1) Top ten causes of death in Egypt

Top 10 causes of death in Egypt					
1	Ischemic Heart Diseases	21%	6	Chronic Obstructive Pulmonary Disease	4%
2	Stroke	14%	7	Chronic Kidney Disease	3%
3	Cancer	9%	8	Road Injuries	2%
4	Cirrhosis	9%	9	Hepatitis	2%
5	Lower Respiratory Infections	4%	10	Diabetes	1%

Source: (IHME, 2010)

1.7 Brief description of the Egyptian health system

The Egyptian health system has a strong infrastructure with competent staff, advanced technology and a huge number of hospitals. There are 539 governmental hospital including 355 secondary/tertiary hospitals and 184 specialty hospitals and centers. In addition to this, thirty one training centers belong to the public sector (MOH, 2013a). Physicians represent 28.3% of the health workforce while nurses/midwives represent 35.2% (WHO, 2012a). Moreover 95% of the population has access to a health care facility within five kilometers radius (MOH, 2005).

The Egyptian health system is a complex system with different ministries and agencies responsible for management, financing and health care provision under diverse laws and different levels of decision space. The Egyptian health system is highly centralized with four key players are responsible for health services provision; 1) public sector: provide services free of charge, it includes governmental and institutional sectors but they are different in operating system and have different sources of financing; 2) private sector: provides high quality of care with high fees; 3) professional syndicates: use insurance scheme and provide limited health services; and 4) other bodies Influencing Legislation and Health Policy: includes independent bodies that have advisory or legislative role in health policy design and future plans (MOH, 2005).

1.8 Health financing:

Egypt is supported by large number of donors mainly the United States Agency for International Development (USAID) and the World Bank (WB). Total Health Expenditure (THE) estimated at 5% of GDP and expenditure per capita was 323 USD (WHO, 2012a).

1.9 National AIDS Program (NAP)

The National AIDS Program (NAP) was established in 1987 by a Ministerial Decree shortly after diagnosis of the first Acquired Immune Deficiency Syndrome (AIDS) case in the country. Functionally, NAP is part of the Communicable Disease Control (CDC) Directorate under the preventive sector at the Ministry of Health (MOH). NAP consists of central body at MOH, in addition to 29 Governmental program officers in all Governorates. NAP and its staff are in charge of HIV response in Egypt including planning, management, and supervision of all HIV related activities in the country (MOH, 2012a).

Chapter II: Problem statement and methodology

This chapter shows overview on HIV epidemic in Egypt, problem statement, justification, methodology and conceptual framework.

2.1 HIV and AIDS: the Egyptian context

Egypt is a low prevalence country with an estimated 11,000 (range 8,400-17,000) people living with HIV (PLHIV) (UNAIDS, 2011b). Over the past ten years, the number of reported HIV and AIDS cases has increased from **990** (from 2003 to 2007) to **2,105** cases from 2008 to 2012. Until the end of 2012, there have been 3085 PLHIV in Egypt, of whom 996 were on treatment. Eighty five percent of PLHIV are between 20-49 years old and 6% below the age of twenty and male to female ratio was 4:1. The main mode of transmission in 2012 was heterosexual transmission 49.5% followed by male to male sexual transmission 22.9%, while IDUs and mother to child transmission (MTCT) are responsible for 4.6% and 1.8% respectively (MOH, 2012b).

2.2 Problem Statement

The epidemic of HIV is growing among MSM worldwide. However, still the group of MSM is neglected from HIV responses (Beyrer *et al.* 2012). It is reported in many countries in the world that MSM have limited access to HIV services such as condom, lubricants, and HIV Testing and Counseling services (Sullivan *et al.* 2012). It is estimated that less than 10% of MSM have access to HIV services worldwide, this figure could be worse in developing countries especially with limited researches addressing MSM due to stigma, discrimination and other socioeconomic factors (Beyrer *et al.* 2011).

In Egypt, the prevalence of HIV among the general population is low (below 1%) with concentrated epidemic among Men who have Sex with Men (MSM) and Injecting Drug Users (IDUs) in some Governorates (UNAIDS, 2011b).

In 2006, the first round of Bio- Behavioral Surveillance survey (Bio-BSS) was conducted among one group of MSM from Alexandria governorate. The prevalence of HIV among them was 6.2% and only 10.5% (n=267) of them have ever tested for HIV prior to the study (MOH, 2006a).

The second round of Bio-BSS was conducted in 2010 among three groups of MSM from Cairo, Alexandria and Luxor governorates (n= 260; 262; 269) respectively. Results revealed that HIV prevalence was 5.7%, 5.9% and 0% respectively. However, only 22.1%, 14.5% and 2% have ever tested for HIV from all groups respectively (MOH, 2010a). Moreover, condom use was very low among all groups while they are engaged in high risk behavior including drug abuse and wide network of multiple commercial and non commercial sexual partners (MOH, 2006a; MOH, 2010a).

Additionally, knowledge and utilization of HIV services such as condom use is very low among MSM particularly in MENA region which is one of the major factors for growing epidemic in the region (UNAIDS, 2011b). Note that the lowest rate of condom use among MSM in the region was reported in Egypt (Mumtaz *et al.* 2011).

2.3 Justification

The right of access to health services is a fundamental right for every citizen in Egypt. MSM has the right to have equitable access and to live healthy life as back by the Egyptian constitution and the National AIDS Program (MOH, 2012a).

Despite legally written, MSM in Egypt still faces many challenges due to lack of equitable access to HIV services. Limited access to services among MSM exposes them and their families to other diseases which result to more financial constrains and consequently pushing them into poverty. In addition to this, limited access to services increases the risk of HIV transmission to other populations such as their wives who are more likely or vulnerable to get infected with HIV than men. Moreover, MSM are involved in high risk behavior including commercial and non commercial sexual relations and drug abuse.

MSM in developing countries continue to be neglected in HIV response while HIV prevalence is much higher among MSM than other populations in many of these countries (Baral *et al.* 2007). Additionally, national HIV responses are often poor in targeting the national epidemiological situation. HIV interventions in many settings are of poor quality and do not adequately focus on MARPs.

National HIV plans should, therefore expands service delivery to MARPs in order to ensure the effectiveness of national HIV responses (WHO, 2011). On the other hand, countries where they have been encouraged to actively participate in the prevention programs, these have been among the most efficient players in slowing the epidemic (Israel, 2008).

There are number of studies addressing MSM in the recent years but still information regarding MSM is limited and there is a need to address the social and political context in low and middle income countries (Cáceres *et al.* 2008). Addressing the needs of MSM is a key element in order to decrease morbidity and mortality due to AIDS related diseases and improve quality of life. Additionally, there should be more emphases on analysis of MSM behaviors in order to develop new evidence-based approaches to risk reduction and to guide prevention programs (Geibel *et al.* 2010).

2.4 Objectives:

The general objective of the study is to explore factors influencing access to and utilization of HIV preventive services among MSM in Egypt in order to make recommendations to The National AIDS Program to improve HIV program implementation.

The specific objectives:

- To assess factors influencing access to and utilization of HIV related services among MSM
- To identify gaps in HIV responses targeting MSM in Egypt.
- To identify and discuss relevant effective interventions to improve access to and utilization of HIV related services among MSM.
- To use the findings to make recommendations to the National AIDS Program to improve HIV program implementation.

2.5 Methodology

This thesis consisted of a literature review of published and unpublished data sources that are relevant to the research question. Personal experience in the field of HIV was also used. The study also used an adapted conceptual framework to guide the literature review and systematically derived at the study findings.

2.6 Search Strategy:

Different combinations of selected key words picked up from the conceptual framework were used. Search engines and data bases that were used for the literature search included Pub Med, Science direct, Google scholar and Scopus. Search was restricted to results from 2004 and onwards and the languages used were English and Arabic. Web sites such as World Health Organization, UNAIDS, UNFPA, UNDP and MOH of Egypt including national documents were also used. Emails and telecommunications with NAP staff and national experts were also used to get access to unpublished reports and other relevant information.

2.7 Key words:

In order to find out the literatures that are relevant to the topic of interest, the study considered combination of key words such as men who have sex with men or MSM and Egypt, HIV, homosexual, religion, Muslim, access, stigma, knowledge, utilization, perception, acceptability, accessibility, age, education, sexual orientation, HIV services, STIs, condom, VCT, interventions, developing countries, middle east and north Africa or MENA.

2.8 Conceptual Framework: (figure 1)

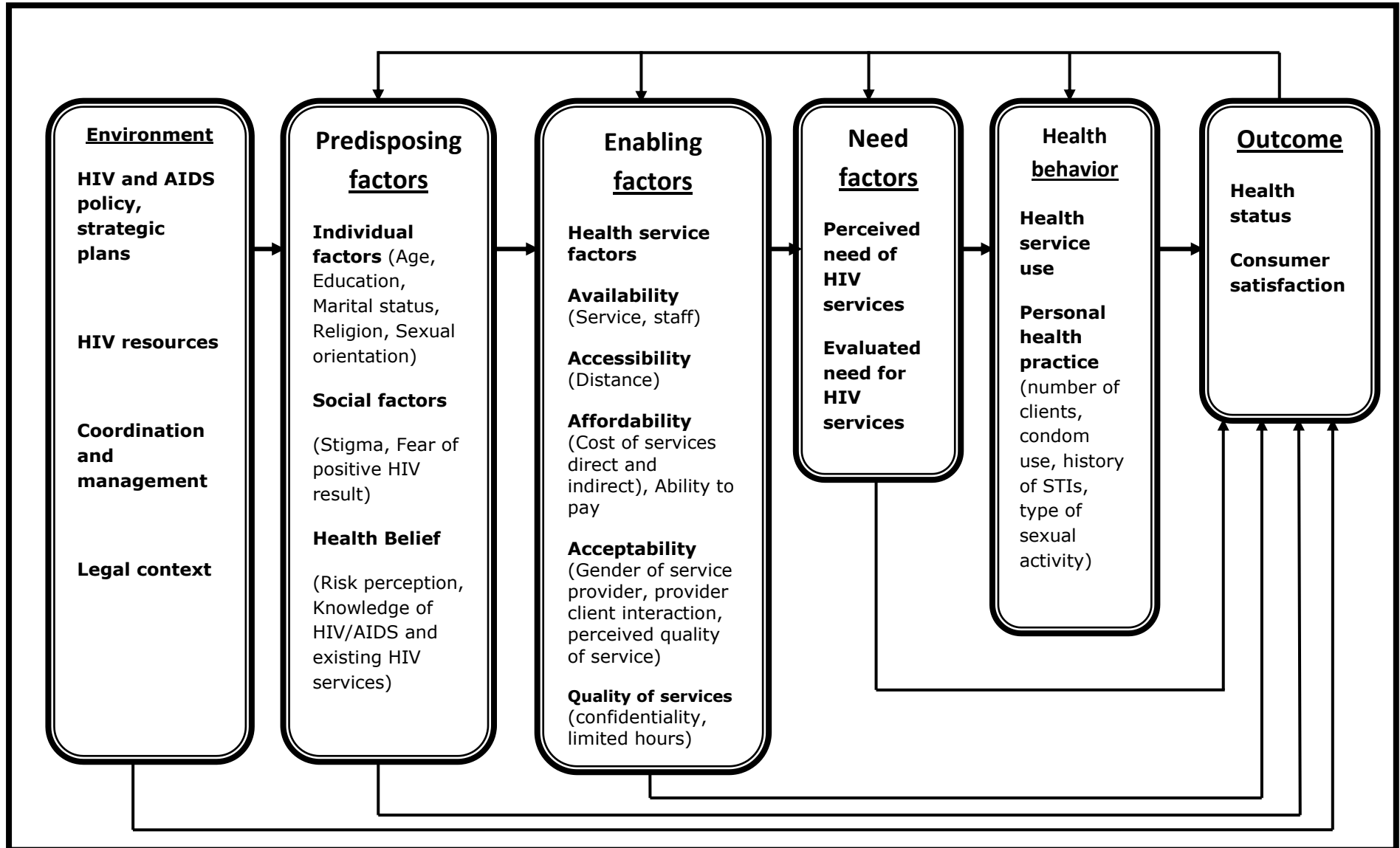
The literature review was guided by a conceptual framework in order to explore factors influencing access to HIV related services among MSM in Egypt. The Andersen's Behavioral Model developed in 1960 was used to understand causes of health services utilization, measure equity in health care access and help in addressing equity in the developing policies

(Andersen, 1995). After modifications and update, the final version came up in 1994 on the basis of three factors that affect health service access and utilization of health services. The framework includes 6 components such the environment, predisposing factors, enabling factors, needs factors, health behavior and outcome.

For the purpose of this thesis, component one to four of the conceptual framework was used since the topic focuses only on factors that influence access to HIV preventable services among MSM.

The environment considers HIV/AIDS policy and strategic plans; HIV resources, coordination and management and legal context. The predisposing factors include; the demographic characteristics of individuals such as age, education, and marital status; social factors such as stigma and fear of positive results; and health belief including knowledge of services and risk of having the disease. Enabling factors refer to ability of individuals to pay for services; in addition to health system factors in terms of availability, geographical accessibility and quality of services (Ahmed, 2012). While need factors refer to individual perceived need for services and evaluated need by medical staff (Andersen & Davidson, 2001 as cited by Babitsch *et al*, 2012).

Figure 1: Conceptual framework of access and utilization of health services. Source: (Ahmed, 2012) who adapted from Andersen's model 1995



Chapter III: Factors influencing access to and utilization of HIV services among MSM

In this chapter, findings from literature that are relevant to the context of Egypt or from similar context and other data sources will be presented in order to identify the factors influencing access to and utilization of HIV services among MSM in Egypt.

3.1 Environmental factors

These factors include underlying factors such as HIV and AIDS policies/strategies, HIV resources and coordination mechanism in addition to external factors such as legal context that facilitate or impede utilization of HIV related services.

3.1.1 National HIV and AIDS policy:

After detection of the first AIDS case in 1986, HIV and AIDS policy was developed by NAP and National Committee for Combating HIV/AIDS. This policy focused mainly on two priority areas; 1) Ensure blood safety in health care settings, in which all donated blood are screened for HIV, HCV, HBV and syphilis to ensure prevention and control of HIV and other blood borne infections, and 2) screening of all foreigners who have or apply for long entry visa more than one month (MOH, 2004a). As a result of such policy, any foreigner who test positive for HIV is deported from the country.

With increase the number of reported HIV infections in Egypt, the national surveillance plan was developed in 2004 and highlighted the need for conduction of bio- behavioral surveys among MARPs on periodic basis to track the epidemic in the country (MOH, 2004a).

Based on the results of the two rounds of Bio-BSS in 2006 and 2010 and revealed evidences of concentrated HIV epidemic among MSM and IDUs, NAP developed the last National Strategic Plan (NSP) 2012- 2016 (MOH, 2012a).

NSP is a multi-sectorial strategy which includes many relevant ministries such as MOH, Ministry of Interior (MOI) and Ministry of Education (MOE) with involvement of the civil society organizations. The aim of this plan was to keep the low prevalence of HIV among general population and reduce HIV transmission among MARPs through scaling up coverage of prevention programs targeting general population, MARPs and other vulnerable populations such as women, street children and prisoners (MOH, 2012a). These activities include raising awareness, promotion of VCT services and link it to other HIV services, condom promotion, and peer education for MARPs. Also NSP emphasizes the importance of involvement and cooperation with different Civil Society Organizations (CSOs) and international partners in outreach activities and harm reduction programs. Furthermore, NSP ensures provision of care and

support for PLHIV through; increase coverage of treatment, improve quality of care and involvement of PLHIV in NAP activities.

Despite the existence of policies and strategies in Egypt, there is a gap in accessing MARPs and possibly MSM are the most difficult group due to the high stigma and discriminating laws (Boutros and Skordis, 2010) in addition to the absence of any specific intervention targeting MSM which hinder their utilization of services (Fahimi, 2007).

3.1.2 HIV Resources:

The last National AIDS Spending Assessment (NASA) conducted by MOH in collaboration with the Joint United Nations Programme on HIV/AIDS (UNAIDS) for the years 2007 and 2008 showed that HIV financing in Egypt is done by various institutions as follow; governmental fund, bilateral fund, International Non Governmental Organizations (INGOs), multilateral agencies [mainly the Global Fund to fight AIDS, Tuberculosis and Malaria (GFATM), UN agencies, WHO and European Commission], and international for profit organizations (MoH 2011).

The Egyptian government contributes to almost 50% of all AIDS expenditures followed by multilateral and bilateral agencies more than 30% and the rest is done by international non- profit organizations and other private funds.

With regards to the targeted beneficiary populations, expenditures are mainly targeting general population followed by PLHIV while only < 6% of expenditures is targeting MARPs. The main activities for MARPs are highly focusing on IDUS followed by FSWs and to less extent MSM (MOH, 2011). MSM are still neglected and there is disparity between priorities in spending and the current status of epidemic in Egypt which limit the utilization of HIV services compared to other groups. Though UNAIDS highlighted that discrepancy between spending priorities and HIV epidemic profile of the countries which result in neglecting MARPs in HIV and AIDS activities (UNAIDS, 2004)

The country is facing challenge these days as a result of suspension of the grant from GFATM except for ARVs which endanger the sustainability of services. NAP is under restructuring and revision with support of UN agencies and other bilateral and multilateral agencies to prepare NAP to apply for the new funding model (MOH, 2014).

3.1.3 Legal Context

The Egyptian constitution contains articles protecting human rights of all population (articles 51, 52, 54, 57, 58, 59 and 62) which guarantee freedom and prevent discrimination against any Egyptian citizen. There is no specific law against homosexuality and it not criminalized in Egypt but it is highly stigmatized and rejected by the population. Prostitution generally is regulated by law No 10 of 1961 article 9 which says "Anyone

who habitually engages in debauchery or prostitution is liable to a penalty of three months to three years imprisonment and/or a fine of LE 25–300". This law is against prostitution, incitement and its encouragement and not gender specific but the police use this law to arrest MSM (UNAIDS, 2012).

It is worst mentioning that still men are arrested in Egypt based on their sexual identity or orientation. **In 2014**, four men have been punished for periods up to eight years in prison for 'habitual debauchery' because they were engaged in a 'homosexual act' (Margolis 2014).

This reflects the stigma and discrimination and violation of human rights of MSM which adversely affect their willingness to disclose themselves or utilize the services for fear of being arrested. In addition to this, it is discouraging any organization to do programs in favor of MSM.

3.1.4 Coordination and management

HIV response is a multisectorial mechanism between the government, civil society organization, private sector and international agencies. This include services provided to PLHIV such as Voluntary Counseling and Testing (VCT) services and harm reduction programs targeting MARPs provided by NGOs and supported by the government, in addition to conduction of researches in collaboration with different civil society organizations and UN agencies. The Country Coordinating Mechanism (CCM) was established in Egypt in November 2003 as a necessary step in the process of applying for the grant from GFATM round six in 2006. CCM is a coordination body between the government and other partners such as NGOs, PLHIV, private sector, faith-based organizations, community-based organizations, academic/ educational sector, and multilateral/ bilateral partners (MOH, 2006b).

Although CCM is the only coordinating body between all partners, decision making is handled by MOH and selection criteria of representatives of civil society are not in place. Moreover, civil society representatives are less knowledgeable about the role of CCM and how it works and miscommunication between the government and other members is a major concern (ICASO, 2012).

Accordingly, stakeholder involvement is absent and there is no mechanism allowing MSM or NGOs working with this high risk group to participate and share their needs. However, NGOs have better access to MARPs than NAP (El-Sayed and Mortagy 2004) and evidences indicated the possibility of reaching MARPs and gain explicit knowledge about behavior of those groups through collaboration with NGOs (Soliman *et al.* 2008).

3.2 PREDISPOSING FACTORS

Predisposing factors are the demographic characteristics of individuals, health beliefs and social factors that can influence health service use.

3.2.1 Individual Factors:

These are the demographic characteristics of individuals including age, marital status, religion and sexual orientation

Age

The last round of Bio-BSS showed that (66%, 65.1%, 55.6%) of MSM were between 20-29 years in Cairo, Alexandria and Luxor respectively (n= 260, 262, and 269). Irrespective of age, testing rates was found very low among all groups; only 22.1%, 14.5% and 2% of MSM have ever been tested for HIV from the three groups respectively (MOH, 2010a). In 2008 Kabbash *et al.* studied the characteristics of VCT clients and found that the majority of them were in the age group (20 - 30) years (Kabbash *et al.* 2010a).

In Egypt, young MSM have limited access to HIV services compared to older MSM. This is due to the age of majority in Egypt is 18 years and young MSM below that age cannot get HIV test without parental consent. However, evidences from studies showed that MSM are involved in high risk behavior during teenage including low condom use and multiple sexual partners and their knowledge of HIV/AIDS is low (Kabbash, 2012; El Sayed *et al.* 2008). Other studies also found that utilization of HIV testing is very low among young MSM (Vu *et al.* 2013) while they have wide network of homosexual and heterosexual partners and overlapping with other groups such as IDUs (Beyrer *et al.* 2012).

VCT data from 2012 to 2013 revealed that 40% of MSM clients who received HIV test and know their results were between (20-30) years while almost 10% was less than 20 years (MOH, 2013b).

Educational level

The level of knowledge and utilization of HIV services varies from high to low according to the educational level of MSM. This association was reported in many countries in the world. In a large scale national survey in 21 in US results revealed that education level is associated with access to HIV testing; MSM with higher education level were more likely to get HIV test (CDC, 2011). Similar results were reported among MSM in many European countries (Carvalho *et al.* 2013, Fernández *et al.* 2013). Other studies in Africa and MENA region revealed that utilization of HIV services including testing and condom use is increased with increase in education level (Abdulsalam *et al.* 2014, Vu *et al.* 2013).

In a study carried out among 73 MSM in Cairo, ninety two percent of MSM who attended primary school or higher had knowledge of HIV/AIDS compared with only 50% among illiterates and condom use was reported to be much lower among illiterates than high educated MSM (El Sayed *et al.* 2008). Other results which is consistent with this results is that almost

two thirds of VCT clients attended secondary school or higher while of illiterates represent only 6% of VCT clients which means that education is positively associated with utilization of services. Note that more than 80% of them were males (Kabbash *et al.* 2010)

Marital status:

The Egyptian society is highly influenced by the conservative norms and religious context that make sex outside marriage is not culturally accepted. Moreover, Sex outside marriage is illegal in Muslim countries (UNAIDS, 2012). Marriage is the only culturally accepted way to have sex in Arab countries (Rashad *et al.* 2005). MSM tend to get married under pressure of their families and friends and to cope with the social norms (Abu-Raddad *et al.* 2010; Oumnia, 2010). MSM cannot disclose themselves to their wives and consequently condom use among them is low which expose their wives to high risk of HIV transmission. The risk of getting HIV and other Sexually Transmitted Infections (STIs) was found to be high among MSM and unsafe anal sex practices are common among married MSM (Vu *et al.* 2013).

Data from the last Bio- BSS indicated that the percentage of MSM who have ever married ranged from 10.4% to 16.5% with high risk behavior including low condom use, injecting drugs and commercial/ non commercial sexual relations (MOH, 2010a).

Religion

Sex between males is prohibited in Islam and is punishable by GOD; there are stories in Holy Qur'an about people who were killed because male used to have sex with each other. Islam was found to be negatively associated with utilization of VCT services and very few Muslim men have ever tested for HIV (Leta *et al.* 2012). People who have risk behavior such as MSM don't utilize HIV testing because they cannot disclose their risky behavior. Many MSM don't get HIV test or treatment and cannot benefit from harm reduction programs. This is due to the fact that sex outside marriage and homosexuality are prohibited in Islam and surrounded by high level of social stigma and negative attitude (Hasnain, 2005).

Based on the fact that 90% of Egyptian citizens are Muslims and the social norms, MSM are mostly affected by the conservative culture of Egypt and face difficulty in utilizing services and they feel they cannot discuss their sexual behavior with service providers.

Sexual orientation

Sexual orientation has been recognized as a major barrier to access and utilization of HIV services. Sexual orientation disguise is strongly associated with never having HIV test among MSM (Prati *et al.* 2013). This is due the high level of stigma and discrimination towards MSM from the community as well as health care providers (King *et al.* 2013). MSM have to hide their sexual identity and cannot discuss their sexual orientation with health care providers (Risher *et al.* 2013).

Gays cannot disclose their sexual orientation and have to live double lives; they act as gays with their gay friends while they hide their sexual preference when dealing with their families or straight friends and some situations they marry under pressure from their families so they can't be identified as homosexuals (King *et al.* 2013 and Oumnia, 2010).

The restrictive culture and religion In MENA region deal with homosexuality as a taboo and shame on the person as well as his family. Homosexuals have limited access to HIV services because they are not able to disclose their sexual identity. In Lebanon, results came up to the association between social identity of MSM and condom use and HIV testing. MSM who are not able to disclose their sexual orientation are less likely to be tested for HIV or use condom (Wagner *et al.* 2012). Condom use is less among homosexuals compared with bisexuals (Beyrer *et al.* 2010).

Looking at the fact that homosexuality is highly stigmatized, rejected by the Egyptian society and punishable by judiciary system, it is very difficult for MSM to disclose their sexual behavior. In such context, considerable proportions of MSM miss opportunities to get HIV test or benefit from other services.

3.2.2 Social Factors:

Stigma

Stigma is considered a major barrier to utilization of HIV services among MARPs in MENA region. It also limits the ability to provide services to MARPs either by the government or by civil society (UNAIDS, 2011b). MARPs in MENA region are facing three levels of stigma and discrimination. First, perceived stigma that they are rejected from their families and from the community and they cannot disclose themselves or benefit from provided services. Second, health care providers stigmatize MARPs and not willing to provide care to them. Third, Most of MENA countries don't recognize the existence of HIV and high risk practices (Shawky *et al.* 2009). Therefore, they become isolated and detached from the community and difficult to reach by prevention programs. Additionally, they avoid seeking HIV counseling and testing as a result of the high level of social stigma and discrimination (Fahimi, 2007).

Brian Whitaker mentioned in his book 2006 "unbreakable love: gay and lesbian life in the Middle East" that many MSM in the Arab world including Egypt are facing different kinds of physical violence and they are kicked out from their homes and even killed and suicide have been documented in some cases. Moreover the problem of homosexuality is ignored and not considered a public matter for discussion (Whitaker, 2006).

MSM are highly rejected in the Egyptian community. MSM in the gay community are rejected from their families, mistreated from other straight friends and they have to hide themselves in the street otherwise they would be insulted by people who could recognize them (Oumnia,

2010). Also stigma and discrimination towards HIV/AIDS has been found among MSM themselves as per the two rounds of Bio- BSS several degrees of stigma and discrimination have been reported and differs from unwilling to share food to not allowing PLHIV to go to school (MOH, 2006a; MoH, 2010a). This stigma affects their willingness to be tested for fear of being stigmatized.

Fear of positive results

Fear of positive results is one of the important factors that limit access to and utilization HIV services in different areas in the world. Many studies in European countries highlighted that the most frequent reason for not getting HIV test as mentioned by among MSM was fear of positive result (Deblonde *et al.* 2010). It also affect decision making and leads to reluctance of getting HIV test among gays and bisexuals until they suffer from AIDS related symptoms (Siegel *et al.* 2010). In Africa it was found that only very few MSM have ever tested for HIV know their HIV status because of fear of stigma and consequences of being HIV positive (Matovu *et al.* 2007). The same reasons were reported among MSM who never tested for HIV in Lebanon (Wagner *et al.* 2012). Fear of knowing HIV status also reported among MSM who have never tested for HIV in Jordan (Abdulsalam *et al.* 2014).

3.2.3 Health Beliefs

Health beliefs are values, attitude and knowledge about health services that have an effect on people's use of these services (Anderson *et al.* 1995)

Risk perception

Globally, low risk perception among MSM was reported in many countries with different HIV epidemic. Data from United States of America (USA) and other European countries indicated alarming increase in HIV incidence among MSM which is considered a major public health threat. The perception of High risk of HIV was high among them due to their engagement in unprotected sex with multiple partners and overlapping with other risk groups such as IDUs. However, testing rates were low because the majority of them didn't perceive themselves at high risk of HIV infection (Jaffe *et al.* 2007).

Perception of not being at risk of HIV among MSM was an important reason for not getting HIV test as reported in many African countries. In Cote d'Ivoire, most MSM don't perceive themselves at high risk of HIV infection (Aho *et al.* 2014). Another study in South Africa indicated that risk perception was low among MSM who had never tested for HIV (Nel *et al.* 2013).

In 2007, a cross sectional study was conducted in Lower Egypt among men aged 15- 49 years from urban and rural areas and with different education level and occupation. The majority of respondents had knowledge of HIV/AIDS and the results suggest high risk behavior and

unsafe sexual relations in the community however, condom use was very low and perception of not being at risk of STIs or HIV was common (Kabbash *et al.* 2007).

Perception of being at high risk of HIV varies according to the education level. Sixty two percent of MSM with high education perceive that they are at high risk of HIV compared with only 8.6% among illiterates. This low perception is also combined with many misconceptions which have a negative impact on utilization of services such as condom use (El Sayed *et al.* 2008). The same results was reported by the majority of MSM in Delta region and condom use was very low among them (Kabbash, 2012).

Knowledge of HIV/AIDS and the existence of HIV services

The last Egypt demographic and health survey 2008 showed that the knowledge of HIV/AIDS is very low and major misconceptions are common in the Egyptian society. Only 7% of women have comprehensive knowledge about HIV/AIDS compared to 18% among men. Misconceptions about modes of transmission and prevention appeared to be more common among women than men (El-Zanaty and Way. 2009).

Results of the last Bio-BSS in 2010 revealed that the majority of MSM in Cairo and Alexandria had knowledge of HIV/AIDS and STIs while, among Luxor group knowledge was relatively lower and only very few of them have heard of STIs. Even though many MSM in all groups were able to identify modes of transmission and preventive measures, misconceptions appeared to be common among them and utilization of condom and proper lubricants was low. The major misconceptions were healthy looking can't be infected and HIV can be transmitted by mosquito bites or sharing meals with an infected person (MoH, 2010a). Knowledge of HIV/AIDS is much lower among illiterate MSM than those who attended primary or secondary school (El-Sayed *et al.* 2008).

With regard to knowledge of existence of confidential HIV test, the majority of MSM in all groups reported their knowledge about the existence of HIV testing (MOH, 2010a).

The level of knowledge about the existence of confidential HIV testing was different among other group of MSM in Delta region. Only one third of respondents reported their knowledge of HIV/ AIDS (Kabbash, 2012).

All these figures indicate that knowledge of existence of HIV services doesn't mean access or utilization of these services. There might be other factors that limit MSM access and utilization of services.

3.3 Enabling Factors:

Enabling factors refer to availability, geographical accessibility, of health services, affordability, acceptability and quality of services.

3.3.1 Availability

HIV Testing and Counseling services (HTC)

The first form of HTC services in Egypt is VCT. This service first launched in Egypt in 2004 and considered the entry point to HIV services including prevention, care and support. VCT services are provided in two different models; fixed and mobile centers. Fixed centers are located in public health facilities mainly in fever hospitals and health centers and provide only HTC. Mobile units provide HTC and hepatitis B and C counseling and testing services. Hepatitis services are integrated to remove any stigma around the vehicle. The aim of mobile units is to reach remote areas in which population have difficulty to access to services (MOH, 2013b).

All VCT centers provide anonymous counseling and testing based on confidentiality, free of stigma and discrimination and free of charge. Services are provided by trained staff on counseling and testing for HIV (MOH, 2004b).

Currently, there are 23 governmental VCT centers in the country located only in 17 out of 29 governorates which limit the accessibility and utilization of services for MSM in some governorates.

Nap data for 2012 and 2013 showed that 27% of all VCT clients were MARPs (n=5067), out of them 33% were MSM (MOH, 2013b).

The other form of HTC in Egypt is Provider Initiated Testing and Counseling (PITC). This service is implemented in 99 sentinel sites in different governorates. These sites are TB hospitals, Ante Natal Care (ANC) units, Sexually Transmitted Infection (STIs) clinics, rehabilitation centers and Fever hospitals. These sites provide HTC by trained team on counseling and testing (MOH, 2010b).

There is a good sign that 40% of all new reported HIV/AIDS cases among MSM have been diagnosed in these sites; mainly fever and TB hospitals but also this figure is an indication of delay access to these sites as all MSM presented by AIDS related symptoms at the time of diagnosis (MOH, 2012b).

Outreach programs

Currently there are two projects targeting MSM in Alexandria and Cairo governorates in Egypt. These projects are part of the capacity development activities supported by NAP (MOH, 2014).

One project is supported by UNAIDS and targets MSM in Alexandria and the other one is supported by FHI 360 and targets MARPs in Cairo and Alexandria. These projects provide services to MSM including provision of condom and lubricants, scaling up HIV knowledge, behavioral change, and care and support to MSM living with HIV. Moreover, the UNAIDS project provide peer education for MSM living with HIV in collaboration with NGO nearly all of its members are MSM living with HIV (UNAIDS, 2012). In addition to these activities, these programs work on stigma reducing through advocacy to other partners such as media, religious leaders, community and national and local authorities (FHI, 2013 & UNAIDS, 2012)).

It is worth mentioning that in 2011, these programs succeeded to reach 2903 MSM by preventive services including condom and lubricant distribution and referral to other services such as STIs clinics and VCTs services (UNAIDS, 2012). On the other hand, this number of MSM is very small in Cairo and Alexandria where more than one third of the population lives. In addition to this, MSM who are living outside Cairo and Alexandria don't have access to these services.

Behavioral Change Communication (BCC)

One of the main NAP strategies is to increase awareness of HIV/AIDS among general population with focus on youth. During 2012 and 2013 a lot of activities have been done by NAP in collaboration with UN agencies, civil society with involvement of PLHIV and youth. These activities resulted in reaching around 60.000 of population through conduction of seminars, workshops and other public activities. In addition to media involvement in anti stigma activities through peer to peer education and internet based awareness activities (MOH, 2014).

All these activities are targeting general population. However, the knowledge of HIV/AIDS is very low and misconceptions are common among general population (El Zanaty and Way 2009). The absence of specific BCC for MSM resulted in existence of common misconceptions among them and therefore they don't seek HIV services (MoH, 2010b; Kabbash, 2012).

STIs services

Data regarding STIs is scarce in most of developing countries. The available date indicates high prevalence of STIs among MSM than any other population (Beyrer, 2008). However, access to STIs services among MSM is limited in many developing countries (Fay *et al.* 2011)

STIs services are limited in Egypt and considered one of the challenges in HIV response (WHO, 2010). Yet, surveillance of STIs is very weak with

poor reporting in governmental sector as well as private clinics (Shawky *et al.* 2009).

In Bio- BSS 2006, many MSM reported having experience with STIs symptoms (n=267). Genital symptoms were common among them as 15% and 13% of them reported experience of genital discharge and genital ulcers respectively. Regarding anal symptoms, 4.5% and 1.8% reported having anal ulcers and anal discharge respectively. However, **no one** has ever tested for STIs prior to the study (MOH, 2006a).

TB services

There is collaboration between NAP and National TB Program (NTP) to provide HIV screening to all newly diagnosed TB patients in TB clinics through PITC service (MoH, 2008). The protocol clearly says that patients with Tb should be tested for HIV. However, some MSM who are HIV positive are not routinely tested for TB (MoH, 2008). Currently the service is provided in 41 sentinel sites. There is no clear referral system between these sites and other HIV services. In addition to this, utilization of TB services is low among population and case detection rate 30% less than the WHO target (NTP, 2004). The lack of integration between the NAP and TB program along with the low utilization rate of TB services which already exists create a gap in accessing HIV preventive services among MSM.

Accessibility:

Geographical accessibility is defined as the distance or time spent by the user in order to reach service delivery point. It is considered a major barrier against service use in developing countries. Bad transport systems and poor communications are the main obstacles especially in remote areas (Peters *et al.*, 2008).

In Egypt, there is a gap in coverage of HIV services especially in Upper Egypt (MOH, 2014). For instance, VCT centers are only available in 17 governorates and not equally distributed. For example, there are two VCT centers in Cairo where 10% of the population aged 15- 45 years lives, while there is no VCT center in Helwan governorate where 6% of the same age group lives (Bahaa, 2011). In addition to this, the confirmatory test for HIV is available only in the Central Public Health Laboratory (CPHL) in Cairo so the client has to travel to Cairo or wait up to two weeks (Kabbash *et al.*, 2010b).

Affordability

Affordability or financial accessibility is defined as the ability and willingness of service users to pay the cost of service without hazardous consequences of economic loss. Inequitable access of health services has been documented in many developing countries (Peters *et al.*, 2008).

MSM in low and middle income countries have difficulty to access to HIV preventive and curative services due to a combination of factors. Income appears to be a significant barrier to access to these services particularly

HIV testing (MSMGF, 2012). In MENA countries people are facing difficulty to pay for accessing services such as HIV testing or follow up investigations if they are HIV infected however, most of HIV services are provided free of charge (Shawky *et al.* 2009). Poverty, economic instability and unrest are considered challenges against use of HIV prevention services (Hasnain, 2005). In a study in African countries showed that MSM in places where stigma is high are facing financial problem such as denial of housing which affect their ability to utilize HIV services (Baral *et al.* 2009)

In Egypt, all HIV services are provided free of charge but still people have to pay the cost of transportation and other indirect cost which may affect their access to and utilization of services.

From the author's experience, most arguably MSM are more affected by poverty and they can't afford services because they are facing different forms of discrimination which lead to loss of their jobs and consequently inability to pay for services

Acceptability

Kabbash *et al.* 2010 studied the characteristics of all VCT clients and their level of satisfaction. The majority of clients were satisfied with the service provided and male were more satisfied than female clients. Many of males have risk behavior either unsafe sexual relation or injecting drugs. Most of the clients of fixed VCT units reported more satisfied with the service than mobile ones however uptake of service was low in both fixed and mobile units (Kabbash *et al.* 2010a). Service providers in VCT centers reported difficulty to talk with MSM about behavioral change and condom use. With regard to sex of service providers, male counselors were more than females in both mobile and fixed centers (Kabbash *et al.* 2010b).

Other services such as STIs treatment services are limited in many developing countries and surrounded by high level of stigma among health care providers. This stigma leads to inability of MSM to disclose their sexual identity or discuss their sexual behavior with service providers and also decrease the willingness of service providers to provide the service to them (Beyrer, 2008). Also, unacceptability was reported as one of main reasons for not using condom among MSM in most of MENA countries (Mumtaz *et al.* 2011).

Quality of service

In 2010, a study conducted among service providers working in both fixed and mobile VCT units to assess their satisfaction and the quality of services provided. The most common problems as reported by service providers were: lack of job description of the staff, delayed and low incentives, training curriculum is different from the real work situation, and administrative workload. These problems influence their satisfaction which is reflected on the quality of services provided. Additionally, Lack of confidentiality and delay of confirmatory results from CPHL in Cairo was highlighted by counselors of fixed centers which influence the trust between the client and the service provider (Kabbash *et al.* 2010b).

With regard to condom and supplies, the main problem was non regular supply of condoms and testing kits which lead to shortage of supplies or sometimes excess. Additional problems reported by staff in mobile centers were; unsafe work places, no fixed working hours and maintenance of the vehicle (Kabbash *et al.* 2010b).

Regarding STIs services, there are no stand alone STIs clinics in Egypt and the services are provided in what is called "skin and venereal diseases hospitals" which results in lack of confidentiality. Moreover, health care providers are not trained on counseling and testing for HIV. One of the major barriers to access to STIs services among MSM is lack of inappropriate services (Beyrer, 2008).

3.4 Need factors

3.4.1 Perceived need

Results from the last demographic and health survey revealed that only 18% of men aged between 15- 59 years have comprehensive knowledge about HIV/AIDS and said that healthy looking person cannot have HIV (El-Zanaty and Way, 2009). These misconceptions were reported among MSM group in Delta region as the majority of them perceived that a person living with HIV cannot look healthy (Kabbash, 2012). In the last Bio- BSS 2010 the majority of MSM in Alexandria and Luxor reported that healthy looking person cannot be infected with HIV; 77% and 78.9% respectively. These misconceptions were reported by only 17% among Cairo group (MOH, 2010a). Additionally, 62.7% of MSM don't recognize at least one symptom of STIs (MOH, 2006a). These figures reflect that many MSM don't perceive the need of services.

3.4.2 Evaluated need

Evidence showed that doctors and nurses in Egypt have many misconceptions about HIV/AIDS and they were not willing to be involved in HIV management because of stigma and fear of getting infected and perceived stigma from the community if they provide care for HIV. Additionally they perceive the existence of special hospitals providing HIV services (Lohiniva *et al.* 2011). Moreover, most of doctors and nurses don't recognize the existence of HIV in Egypt and consequently this reflects on their evaluation of the need of people (Khattab, 2011).

Chapter IV: Effective interventions

In this chapter I will present some successful interventions from other countries in order to make recommendations for piloting such these interventions in Egypt. The selection of interventions based on feasibility of implementation in the context of Egypt and the effectiveness of these interventions in the context where these interventions have been implemented.

4.1 Internet based intervention to reduce HIV risk among MSM

Internet is well known tool used by MSM to meet their friends or sexual partners. MSM who use internet are more likely to involve in high risk behavior with multiple sexual partners (Bolding *et al.* 2004 and Bull *et al.* 2004 and Mustanski, 2007).

One of the successful interventions for MSM is Cyber-Based Education and Referral/testing (**CyBER/testing**) conducted in USA in 2009. It is a community-based participatory research partnership (CBPR) developed based on lessons learnt from Cyber-Based Education and Referral/Men for Men (CYBER/M4M) intervention which conducted to increase awareness and reduce HIV risk among MSM in the USA (Rhodes *et al.* 2010). CyBER/testing aimed to promote HIV testing among difficult to reach MSM using chat rooms. These lessons include; MSM users of chat rooms lack knowledge about how to access HIV testing, chat rooms include MSM who were not able to disclose their sexual orientation in the society (Rhodes *et al.* 2011).

CyBER/testing intervention was implemented by gay man who had better understanding of the context gay community and was aware of the social and psychological characteristics of MSM. This helped in facilitating communication with the target group. Video communication was also used which has been proven to be effective in increasing knowledge among high risk groups in other countries (Blas *et al.* 2010).

CyBER/testing intervention succeeded to increase self reported HIV testing rates from 44.5% to 60% and to provide comprehensive package of prevention including knowledge about HIV/AIDS, confidentiality and sites for HIV testing.

Lessons learnt:

- The effectiveness of equal involvement of community members in prevention programs targeting MSM with active participation of MSM themselves.
- The possibility to reach difficult to reach MSM and to deal with barriers to access to HIV testing among them.

4.2 Implementing AIDS Prevention and Care (IMPACT) Project: Bangladesh

Bangladesh is a country with low prevalence of HIV below 1% with concentrated among IDUs (UNAIDS, 2013), while the prevalence remains below 1% among MSM and FSWs. The WB highlighted that low prevalence among MSM and FSWs is attributed to the targeted interventions for those high risk populations (WB, 2012).

The government of Bangladesh showed strong commitment in response to HIV epidemic since late nineteenth. IMPACT project was established in 1999 and it has been running for ten years. The targeted populations were; MSM, transgender, FSWs, male sex workers, clients of sex workers, and rickshaw pullers (FHI, 2007).

The project focused on strengthening the surveillance system for HIV, behavioral change communications, scale up STIs management, and building capacity of NGOs working in HIV response. The main activities targeting MSM were expansion of outreach activities through building capacity of NGOs, establishing user friendly clinics, promotion of condom and lubricants, scale up of STI services and link it to other services, and enabling environment for MSM.

The project succeeded to reach large number of MSM and FSWs and provide them with full package of preventive services including STIs services, HIV counseling and testing, and condom promotion.

This program succeeded in increasing condom use, reducing STIs prevalence, and increasing access to and utilization of STI services by all groups. Moreover, the program succeeded in building capacities of NGOs working with MARPs as well as PLHIV and establishment of community based organization for MSM covering the whole country (FHI, 2007) which indeed contributed to maintaining the overall prevalence of HIV below 1%

Lessons learnt:

This project is a good example of strong commitment of the government and integration between all partners to set up new targeted programs in order to control HIV epidemic in the existence of laws against MSM and FSWs. In addition to this, what made the program work is the combination of surveillance and research including rapid assessments to identify new geographic areas with different key populations.

Chapter V: Discussion

The study discussion focuses on gaps identified from the findings and the conceptual framework. The discussion was done following similar patterns of the specific objectives and four key components of the framework such as: environmental factors, individual factors, enabling factors, and need factors.

Environmental factors

The study reveals that access to and utilization of HIV services by MSM is highly influenced by the legal context. Although homosexuality is not illegal in Egypt, but the authorities trace MSM and put them under penalty of discriminating law that may lead to their imprisonment. This law violates human rights of MSM and hinders HIV response.

This legal context is discouraging for MSM to disclose their sexual behavior and utilize HIV services for fear of being arrested. Moreover, it increases the level of stigma which is already high among general population as well as health providers which adversely affects the implementation of HIV and AIDS policies in place. For example, it may lead to reluctance of the mainstream NGOs to offer services to MSM as they fear the working environment where there may be harassment and conflicts with authorities. A great effort is needed to advocate for human rights of those minorities especially in the absence of political will and the current conflict in the country.

One of the strategic directions of the Global health sector strategy on HIV/AIDS 2011-2015, is to reduce vulnerability and remove barriers to accessing services, with the overall aim to achieve equitable access to HIV service delivery and promote the human rights of MARPs. One of the recommended country actions is to involve people living with HIV, especially from MARPs in the design, implementation and evaluation of the national HIV responses (WHO, 2011a). In this perspective, the WHO's contribution is to promote the adoption of policies, practices and laws that protect human rights and eliminate discrimination in the health sector.

Despite all of these efforts, MSM in Egypt still lacks legal support and faces many challenges that deny them access to HIV services and their involvement in terms of planning and implementation of HIV related programs.

The current economic situation is challenging and NAP is facing a challenge due to reduction of HIV expenditures by almost 30% which endanger sustainability of services. Less than 19% of HIV/AIDS expenditures are in the prevention aspect (UNAIDS, 2013). The current HIV and AIDS policies and strategies are disproportionately targeting general population while the group of MSM is neglected. Moreover, the role of civil society and MSM representatives in HIV planning and management is missing. This creates a challenge in addressing needs of MSM in order to overcome access barriers to HIV services. Reviewing

policies and strategies and prioritization of existing resources are important in prioritizing targeted activities and minimize the gap which already exists between Upper and Lower Egypt.

Predisposing factors

The study finds that young MSM in Egypt have limited access to HIV services compared to older groups. Our findings also show that many MSM have their sexual debut at younger age than non- MSM with a wide network of sexual partners, while condom use is low. Young MSM below legal age of 18 cannot take an HIV test without consent from their parents. They cannot carry condom for fear of being found by their parents. These factors limit access to HIV services particularly among young MSM and create further spread of HIV, and AIDS related diseases in the general population.

One of WHO/UNICEF policy recommendations is to provide HIV testing directly to young people even if their parents refuse (UNAIDS, 2012). Involvement of young MSM in HIV interventions is necessary to deal with the complexity of this issue in Egypt to facilitate their access and utilization of services.

Stigma against MSM is very high in the Egyptian society and is one of the major barriers to access and utilization of HIV services among MSM. The study also reveals that factors such as religious and cultural norms are the main contributing factors to high stigma among MSM in Egypt. Homosexuality is not a topic for discussion and is surrounded by denial from society as well as the government.

Social stigma against MSM results in marginalization of this group and makes it difficult for them to disclose their behavior or to reach them with HIV services. It also affects their behavior as MSM tend to marry for fear of being stigmatized and they cannot disclose their sexual orientation and they became hidden and isolated from the community. This isolation influence MSM access and utilization of services as data showed that condom use and HIV testing is very low among MSM who were not able to disclose their identity. In addition to this, they expose their wives and other sexual partners to HIV infection.

Moreover, MSM are facing stigma from health care providers which adversely affects MSM acceptability of HIV services. Additionally, the stigma against HIV and AIDS from the community as well as from health care providers leads to depriving this high risk population from getting HIV test for fear of being stigmatized.

Low risk perception is strongly associated with low HIV testing among MSM (Tsereteli et al, 2013). Our findings show that low risk perception is common among MSM and combined with major misconceptions about HIV and AIDS. Even though the knowledge of HIV and AIDS is high among MSM, their perception of being at risk is very low while at the same time

they show high risk behavior and low condom use, which increases the risk of HIV among them. There is also the risk of spreading infection to other populations because many MSM are engaged in commercial and non commercial sex and a considerable proportion of them are married.

The study explored the best practices in other countries that have shown effective in addressing such gaps. The study explored how the issue of access barriers to HIV testing was addressed in the USA using internet based intervention which has been proven to be effective. Internet interventions for MSM have positive implications and help in reaching difficult to reach MSM (Elford et al. 2004) and other studies suggested that web based interventions could be successful in providing information to considerable number of MSM (Sanchez et al. 2012). Results from studies in the Arab world indicated the high rates of internet use among MSM (Abdulsalam et al. 2014; Wagner et al. 2012) which suggest the relevance of web-based interventions in reaching MSM with preventive programs. Currently in Egypt one of the popular websites for MSM is called manjam "www.manjam.com". The number of users reached around 11,500 from Cairo and other governorates in 2009 (Oumima 2010). Moreover, the number of internet users in Egypt is increasing and mostly among youth (EINP, 2010). Additionally, there is an NGO that is organized and recognized in Egypt which is particularly for MSM and this NGOs already working with UNAIDS project in peer education for MSM.

Internet based approach can adapted to the Egyptian setting since in Egypt there is a group that is already organized within an NGO. Recognizing and training them can enable them to have the network which can be effective factor in reduction of barriers with respect to access to HIV testing. This approach ensures involvement of MSM in HIV response, it deals with stigma issue because no direct contact with people, it is easy way to deliver preventive messages to MSM in an anonymous way which can overcome the legal constraints, and it promotes for VCT services. However, the implementation of this approach will require coordination between NAP and that NGO and proper training of VCT staff to provide the needed services to MSM.

Enabling factors

Our findings show that VCT centers are not equally distributed in the country which results in limiting the access to HIV testing among MSM. However, the recent testing rates among MSM are promising and reflect that they accept the service provided. Investing more in these centers and considering redistribution can help in attracting more MSM to utilize the service and overcome the problem of accessibility and help to reduce the cost of services that might be a barrier to access services.

Access and utilization of STIs services among MSM are highly influenced by acceptability of services. Our findings show that knowledge of HIV and AIDS among health care workers along with negative attitude against HIV have negative impact on their willingness to provide services to MSM. Moreover, lack of training on counseling and testing for HIV limit the ability of health providers to deal with the behavior of MSM. Also stigma against MSM is very high among health providers which hinder MSM ability and willingness to disclose their orientation or discuss their sexual behavior with health providers.

STIs services are very limited in Egypt, lack confidentiality and quality of service is low which results in low utilization and access of these services by MSM. One of the WHO recommendations is implementation of syndromic management of STIs as an important prevention intervention for MSM. Implementation of this approach requires; allocation of specific clinics in the current dermatology and venereal hospitals to ensure confidentiality and privacy, and training of health care workers on syndromic management of STIs with focus on key symptoms among MSM such as urethral discharge and anorectal symptoms (WHO, 2011b).

To my knowledge, NAP is towards implementation of strategy to strengthen STIs surveillance system in collaboration with WHO/EMRO office in Cairo which will help in scaling up STIs services.

The number of NGOs that provide HIV services for MSM are limited and mostly in Cairo and Alexandria governorates. However, NGOs showed success in reaching MSM and provide them with a full package of services. Moreover, NGOs have direct role in reducing stigma in the community and advocacy with other partners such as media and religious leaders. Our study explores evidences of successful collaboration between the government and NGOs which helped in reaching MARPs.

The study explores best practices of interventions from other countries that have shown to address to challenges of access related barriers including stigma. The example of Bangladesh is good example of the effectiveness of collaboration between the government and NGOs to deal with MSM in places where homosexuality is illegal and highly stigmatized. This intervention can be adapted to the Egyptian setting through collaboration between NAP and the current existing NGOs working for MSM. Building the capacity of these NGOs will help in expansion and coverage of preventive HIV services to other governorates. Moreover, it helps to attract more NGOs willing to provide services to MSM. However, the implementation of this approach will require scaling up of STIs services, training of health care workers on HIV counseling and testing and how to deal with MSM from public health prospective, and integration between STIs and VCT services.

Our finding show that quality of services in VCT centers can be affected by the work overload, unclear terms of TORs, shortage of training and

weak supply system for condom and testing kits. These problems can have a negative impact on utilization of HIV services by MSM. Considering these issues are necessary in the current stage because VCTs will play an important role in the success of other interventions.

Need factors

Our findings reveal that both perceived need among MSM and evaluated need by health care workers are influenced by misconceptions about HIV and AIDS as a result of improper IEC and BCC for MSM along with lack of knowledge among health care workers and HIV related stigma. These factors have an impact on access to and utilization of HIV services by MSM. These factors are considered in the selected interventions for effective HIV response in the country.

The above mentioned interventions are crosscutting and as such can be used to address key issues identified within this study.

The topic of the study is very sensitive in the context of Egypt as such there is very limited information that can address the need of the thesis. Moreover, the sensitivity of the topic and low participation of MSM in available researches result in limited quantity and quality of information to address MSM in Egypt as well as other developing countries.

Some of the findings based on local reports and not peer review articles which may also bias the study results; the study results are based on literature review which provides limited information as compared to primary data collection that would address specific areas of the study. The framework guided the completion of the thesis; however there were challenges in addressing some components of the framework as some information available were limited with respect to Egypt specific context on MSM.

The languages used for the conduct of this thesis were English and Arabic while some articles addressing the issue of HIV were in French. These factors would influence the findings of this thesis because some information relevant to this thesis but in other languages were not considered due to language barrier.

Chapter IV: Conclusion and recommendations:

Conclusion:

This study is one of the first studies that have been done to address access barriers of HIV related services among MSM in Egypt. The study findings can be used for decision making to improve HIV program implementation in Egypt.

Access to and utilization of HIV services by MSM in Egypt remains low. The legal context, stigma among the community as well as health care providers, misconceptions about HIV and AIDS, low risk perception, young age, and the limited role of civil society are the main barriers of access to HIV related services among MSM, while other factors such as knowledge of HIV and AIDS, affordability and marital status might have low effect on access to HIV services.

In addition to these factors, limited and unequal distributions of HIV services are important barriers to address.

An integrated approach with the involvement of all key stakeholders including MSM with focus on targeted HIV preventive services is important in addressing the current access barriers to HIV services among MSM.

The study explored some of effective interventions that dealt with barriers to access and utilization of HIV services among MSM in other countries. These interventions can be adapted to the Egyptian context in order to improve HIV program implementation among MSM.

Recommendations:

Based on the results of the study, the following recommendations are proposed to the National AIDS Program and all relevant stakeholders in order to improve program implementation

1. **The NAP should advocate for the establishment and reinforcement of anti-discriminatory law by involving the police.** This can be achieved by continuous advocacy to policy makers, religious leaders and parliamentarians.
2. **Mobilizing resource and prioritization of activities** to deal with the current lack of funding and ensure effective response to the current HIV epidemic situation through the involvement of all relevant stakeholders directly or indirectly involved in the implementation of HIV related services in Egypt.
3. **Creating strategies to sensitize health care workers to provide services free of discrimination to MSM.** This can be achieved through collaboration between MOH and community organization to conduct training to health care workers on sexuality and human rights of MSM.
4. **Scale up STIs services and link it with other HIV services.** This can be achieved through training of health care workers on syndromic management of STIs and allocation of specific clinics in the current dermatology and venereal hospitals to ensure confidentiality and privacy of health care providers.
5. **Involvement of MSM and community organizations in the national HIV planning, management and implementation** to address MSM needs in order to achieve effective response.
6. **Reviewing policies and strategies and adaptation of interventions** targeting MSM based on best practices from other countries.
7. **Establishment of specific BCC targeting MSM** with focus on the main misconceptions among them.
8. **Implement the conduct of policy related research** to identify the factors that influence implementations of HIV policies and programs and how decisions are taken with regard to priorities and resource allocation.
9. **Conduct research on risk behavior and epidemiology of HIV among MSM** to gain information about the magnitude of HIV risk among them for better response.

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