# KNOWLEDGE, ATTITUDE AND PRACTICE OF PROVIDER INITIATED TESTING AND COUNSELING PROVISION AMONG HEALTH CARE WORKERS IN DAR ES SALAAM, TANZANIA

Emerensiana Nampanda

Master of Public Health Dissertation Muhimbili University of Health and Allied Sciences October, 2014

# KNOWLEDGE, ATTITUDE AND PRACTICE OF PROVIDER INITIATED TESTING AND COUNSELING PROVISION AMONG HEALTH CARE WORKERS IN GOVERNMENT HEALTH FACILITIES IN DAR ES SALAAM, TANZANIA

By

Emerensiana Nampanda

A Dissertation Submitted in partial Fulfillment of the Requirements for the Degree of the Degree of Master of Public Health of the Muhimbili University of Health and Allied Sciences

Muhimbili University of Health and Allied Sciences October, 2014

# **CERTIFICATION**

The undersigned certifies that he has read and hereby recommended for acceptance by Muhimbili University of Health and Allied Sciences a dissertation titled **Knowledge**, **Attitude** and **Practice of Provider Initiated Testing and Counseling (PITC) Provision Among Health Care Workers in Government Health Facilities in Dar es Salaam**, **Tanzania** in partial fulfillment of the requirements for the Masters in Public Health of Muhimbili University of Health and Allied Sciences.

Cyprian Makwaya
(Supervisor)

Date

#### **DECLARATION**

#### **AND**

# **COPYRIGHT**

This dissertation is the copyright material protect under the Berne Convention Copyright Act of 1999 and other international and national enactment, in that behalf on the intellectually property. It may not reproduced by any means, in full or part, except in short extracts in fair dealings; for research or private study, critical scholarly review or discourse with acknowledgement, without the written permission of the Directorate of Postgraduate Studies on behalf of both the author and the Muhimbili University and Allied Sciences.

#### **ACKNOWLEDGEMENTS**

This dissertation has been accomplished through the kind assistance of various people to whom I am indebted. I would like to extend my utmost gratitude to the Tanzania government for their financial support which enabled me to pursue this study. I would like to extend my sincere gratitude to my employer Management and Development for Health for giving me permission joining MPH Programme.

For all those who contributed towards my academic work in any way, I am sincerely indebted to you all. I wish to express my deepest gratitude to my supervisor Mr. Cyprian Makwaya. I am most thankful for his tireless effort in giving me valuable and guiding advices throughout the preparation and writing of this work. His willingness, wise guidance and constructive constant comments brought this work into reality.

I would like to express my earnest thanks and appreciation to all my colleagues at Management and Development for Health (MDH), for cheerful expression and moral support. I greatly appreciate the friendliness, support and encouragement of my group members Emelda Lwena , Agwanda Obado, Talumba Samatta, Zakia Mohamed, Waziri Yasin and Tulanoga Matimbwi, whom we shared all laughs and tears.

To my beloved husband, Sallum Nachagwa, words cannot express the gratitude I feel for his tireless love, patience, continuous support and encouragement he had given me, he always kept my working spirit up.

Lastly I owe my special and deepest gratitude to God for keeping my physical and mental health fit up to my work.

# **DEDICATION**

This work is dedicated to:

My late parents (Anna Maria Nangenje and Ferdinand Mpanda) for the bringing me to the world and taking good care of me.

#### **ABSTRACT**

Provider Initiated Testing and Counseling (PITC) was introduced in 2007 by WHO and UNAIDS to ensure universal access to HIV prevention, treatment, care and support services for People Living with HIV and AIDS (PLHIV). A descriptive cross-sectional survey was conducted in July 2013 using a self-administered questionnaire among 94 health care workers in nine health facilities in Dar es Salaam region, Tanzania. The study intended to measure knowledge, attitude and practices in relation to provision of PITC among health care workers in government health facilities which provide comprehensive TB/HIV care and treatment services.

Altogether, 45.7% of sampled health care workers were Clinical Officers with education above secondary level education. Majority (95.6%) of participants had high level of knowledge on principles of PITC provision. Moreover, 91% of the study participants had positive attitude towards PITC. Furthermore, provision of PITC services was significantly associated with training (P< 0.001) and supervision (P<0.001, OR 27.5). Most of the facilities observed to have guidelines (67%), privacy (78%) and HIV rapid test kits for PITC provision (100%). Majority of HCW indicated preference of PITC provision to be performed at RCH clinics (98.9%), OPD (98.9%) and IPD (96.6%).

Increased access to test and counseling is important for early HIV identification, access to care and treatment and prevention of HIV transmission. Regular supportive supervision should be conducted to health facilities to ensure health care workers provide PITC services accordingly. NACP in collaboration with CHMT should provide and ensure availability of guidelines of PITC services to all health facilities.

# TABLE OF CONTENTS

CERTIFICATION	ii
DECLARATION	iii
ACKNOWLEGMENT	iv
DEDICATION	v
ABSTRACT	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	ix
ABBREAVIATIONS	X
CHAPTER ONE	1
1.0. INTRODUCTION	1
1.1. Background Information	1
1.2. Statement of the problem	3
1.3. Rationale of the study	6
1.4. Research questions	6
1.5. Objectives	7
1.5.1. Broad Objective	7
1.5.2. Specific objectives	7
CHAPTER TWO	8
2.0. LITERATURE REVIEW	8
CHAPTER THREE	16
3.0. METHODOLOGY	16
3.1. Design of the study	16
3.2. Study area	16
3.3. Study population	16
3.4. Sample size and sampling procedures	17
3.4.1. Sampling	17
3.4.2. Sample size	17
3.5. Data collection technique and tools	18

3.6. Variables	18
3.6.1. Dependent variables	18
3.6.2. Independent variables	18
3.7. Recruitment and training of research assistants	19
3.8. Pre-testing of questionnaires	19
3.9. Data processing and analysis	19
3.10. Ethical consideration	20
CHAPTER FOUR	21
4.0. RESULTS	21
4.1. Introduction	21
4.2. Social-demographic characteristics	21
4.3. Level of knowledge on principles of PITC provision	23
4.4. Attitude of health care workers towards PITC provision	24
4.5. Practice of PITC services by HCW's	25
4.6. Availability of PITC related facilities and supplies	26
4.7. Preferred places for PITC provision	27
CHAPTER FIVE	28
5.0. DISCUSSION	28
5.1. LIMITATION	30
CHAPTER SIX	31
6.0. CONCLUSION AND RECOMENDATIONS	31
6.1. Conclusion	31
6.2. Recomendations	32
7.0. REFERENCES	33
8.0. APPENDICES	35
APPENDIX 1: questionnaire - English version	35
APPENDIX 1: questionnaire - Swahili version	40
APPENDIX 1: Informed consent - English version	46
APPENDIX 1: Informed consent - Swahili version	49

# LIST OF TABLES

Table 1: Social demographic characteristics of study participants	22
Table 2: Level of knowledge on principles of PITC provision by training	23
Table 3: Supervision to HCWs in relation to attitude towards PITC provision	24
Table 4: Practice of PITC by training on PITC	25
Table 5: Provision of PITC by supervision.	26
Table 6: Availability of privacy, supplies and guidelines by type of health facility	26
Table 7: Preferred places for counseling and testing.	27

# **ABBREVIATIONS**

AIDS Acquired Immune-Deficiency Syndrome.

ART Antiretroviral Therapy

CTC Care and Treatment Center

HIV Human Immunodeficiency Virus

MUHAS Muhimbili University of Health and Allied Science.

UNAIDS Joint United Nations Programme on HIV/AIDS

VVU Virusi Vya Ukimwi.

WHO World Health Organization

AIDS Acquired Immune Deficiency Syndrome

NACP National AIDS Control Programme

PLHIV People living with HIV/AIDS

PITC Provider initiated Testing and counseling

VCT Voluntary initiated Testing and counseling

MoHSW Ministry of health and Social welfare

CDC Centers for Disease Control

USAID United States Agency for International Development

HTC HIV Testing and Counseling

OPD Outpatient Department

IPD In patient Department

#### **CHAPTER ONE**

#### 1.0. INTRODUCTION

# 1.1. Background Information

The overall growth of the global AIDS epidemic appears to have stabilized. UNAIDS estimated by the end of 2009 a total of 33.3 million people worldwide were living with HIV and AIDS [8]. This is a bit low compared to 39.5 million in 2006. It was also estimated that number of adults and children newly infected with HIV per year worldwide in 2007 was 2.5 million which is also low compared to 4.3 million in 2006 [8].

However Sub-Saharan Africa remains the most severely affected region with only 10% of world's population, it shelters about two thirds of the total number of people living with HIV globally.

Since the first three cases of AIDS were reported in 1983 in Tanzania, HIV and AIDS has been spreading rapidly. It is estimated that there were 2.5 million cases worldwide (2007) of which over two thirds (68%) occurred in sub-Saharan Africa, leading to an increase of people living with HIV and AIDS [1]. HIV prevalence in Tanzania is 5.7% and Dar es Salaam is among the three leading regions with a prevalence of 8.9 %, and about 90% of PLHIV are in need of ART [8].

Focuses on global and national move for universal access to HIV Prevention, treatment, care and support services for PLHIV, HIV Testing and Counseling was introduced.

WHO and UNAIDS provided guidance on provider initiated HIV testing and counseling (PITC) in May 2007, recommended to countries with generalized HIV epidemics, which is offered regardless of signs and symptoms of underlying HIV infection. The health care workers need to follow principles of Test and counselling [9,15]. Approximately 80% of PLHIV in low- and middle-income countries do not know that they are HIV positive [5, 14, and 16]. WHO, CDC, USAID, and Non-governmental organizations responded to the situation by improving access to HIV testing services and making HIV testing a more routine and part

of general medical care. The response increased the number of clients identified to be HIV positive and the number accessed HIV and AIDS care and treatment.

Various studies have been shown that HCW have limited knowledge, negative attitude and low level of practicing PITC services. A study conducted in Mbeya 2010 indicates that 35% of HCWs had negative attitude towards PITC service and 67% reported had to ever practice PITC service this [10], furthermore Zimbabwe in 2012 showed 83% of facilities had inadequate space to provide confidential counseling and had stocks-outs of HIV rapid test kits[1]. Poor provision PITC service may lead to poor access of the service, delay in diagnosis, increased HIV transmission, and increased morbidity and mortality rate. This study intended to know Health care workers knowledge, attitude and practice towards PITC provision in Dar es Salaam Region.

# 1.2. Statement of the problem

UNAIDS estimated in 2009 that a total of 33.3 million people were living with HIV and AIDS, with Sub-Saharan Africa having about two thirds of the total PLHIV globally [1]. Studies done in sub-Saharan African countries observed that only 10% of men and 12% of women had been tested for HIV [5]. HIV prevalence in Tanzania is 5.7%, Dar es Salaam 8.9% and 90% of PLHIV are in need of ART [8].

Tanzania surveillance report (2010) showed sources of clients for HIV Testing and Counseling included self-referral (81%), OPD (7%), IPD (3%), HBC (6%), TB clinic (1%), and STI clinic (1%) [7].

In order to move with global and National goal of HIV Prevention, a treatment care and support service, HIV Test and Counseling was introduced.

Studies done in Botswana and Uganda showed that client acceptance rate was 98 %, it was also known that 43% accepted non-voluntarily (i.e. through fear of the policy and treatment by healthcare workers.

Voluntary Counseling and Testing (VCT) started in 1988, WHO and UNAIDS recommended Provider initiated test and Counselling (PITC) in 2007.

It is hypothesized that Health Care Workers had:

- 1. limited knowledge on principles of PITC
- 2. negative attitude
- 3. low practice & little acceptance of PITC service

A study done in Mbeya 2010 indicated that 35% of HCWs had negative attitude towards PITC service provision however providers attitude need to be good always as it is also among the professional ethical conduct of Health care workers and needed to be fulfilled when providing the service to the clients. The negative attitude could be attributed by limited supervision and

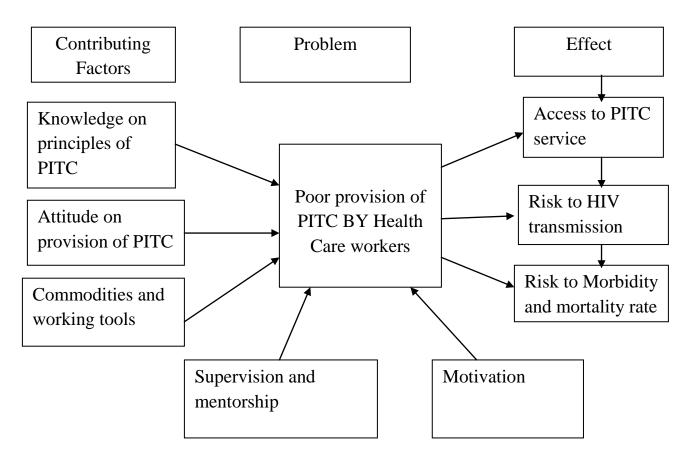
mentorship, less motivation among HCW, limited access of PITC commodities and working tools.

Poor provision of PITC service may lead to poor access of PITC service, delay in diagnosis

Increased rate of HIV transmission thus will be increased morbidity and mortality rate.

In spite of Ministry of Health and Social welfare (MoHSW), through National AIDS Control Program (NACP), developing guidelines and trained staff on PITC service, there is limited information on the Health Care Workers' knowledge, attitude and practice with regard to PITC service.

# **Conceptual frame work**



The framework above summarizes the interrelationship of different factors contributing to poor provision of PITC among Health Care Workers. Lack of knowledge on principles of PITC, negative attitude, limited commodities and working tools can directly lead to poor provision of PITC service, this also can be influenced with limited supervision and lack of motivation. Poor PITC service provision will lead to poor access of PITC service and people will not be aware with their HIV status thus will increase the chances of HIV transmission hence increased HIV prevalence rate which in turns to high morbidity and motility rate.

# 1.3. Rationale of the study

Increased access to HIV testing and counseling is important in order to promote early diagnosis of HIV infection, which in turn can maximize the potential benefits of life-extending treatment and care, and prevent HIV transmission among the population. While scaling up of access to HIV testing and counseling is critical, there is a need of assessing different models for HIV Test and counseling. Moreover, while the general public appears to have a positive perception of routine testing initiatives there is still very limited information describing the perceptions of Health Care Workers regarding the feasibility and appropriateness of routine testing and counseling and their willingness to participate in this programme.

Several studies have been conducted in the general population in relation to PITC, but there is little information on part of providers. This study will therefore measure the knowledge on PITC principles, assess the attitude and determine the extent of implementing PITC service among health care workers in Dar es Salaam municipals' health facilities. It is expected that the results of this study will lead to making recommendations to strengthen provision of PITC services.

# 1.4. Research questions

- 1. What is the level of knowledge on PITC principles among health care providers?
- 2. What is the attitude of health workers towards provision of PITC services?
- 3. What is the extent of provision of PITC services?
- 4. What tools and facilities are available at health facilities for provision of PITC services?

# 1.5. Objectives

# 1.5.1. Broad objective

To determine the knowledge, attitude and practice in relation to provision of Provider Initiated Test and Counseling (PITC) among Health Care Workers in government Health facilities in Dar es Salaam Municipalities

# 1.5.2. Specific objectives

- 1. To determine the level of knowledge on principles of PITC among health care workers
- 2. To assess health care workers' attitude towards provision of PITC services
- 3. To describe preferred places for PITC services
- 4. To determine the proportion of health care workers who are currently practicing provider initiated testing and counseling (PITC) for HIV infection
- 5. To determine the availability of privacy facilities, essential tools (guidelines and registers) and reagents for provision of effective PITC services

#### **CHAPTER TWO**

#### 2.0. LITERATURE REVIEW

Globally the growth of the AIDS epidemic appears to have stabilized. UNAIDS estimated that by the end of 2009 a total of 33.3 million people worldwide were living with HIV and AIDS (NACP 2012), this is a bit low compared to 39.5 million in 2006. It was also estimated that number of adults and children newly infected with HIV per year worldwide in 2007 was 2.5 million which is also low compared to 4.3 million in 2006 [8].

However Sub-Saharan Africa remains the most severely affected Region with only 10% of world's population, it shelter about two third of the total number of people living with HIV globally [5].

Since the first three cases of AIDS were reported in 1983 in Tanzania, HIV and AIDS has been spreading rapidly estimated 2.5 million Worldwide (2007) of which over two thirds (68%) occurred in sub-Saharan Africa, this results to an increase of people living with HIV and AIDS [8].

Focuses on global and National move to accelerate universal access to HIV Prevention, treatment, care and support services for PLHIV, this call for HIV Testing and Counseling using different approaches to allow early identification and increase the number of infected persons who will access care, treatment and support Services [9, 15].

WHO and UNAIDS issued new guidance on informed, voluntary HIV testing and counseling in the world's health facilities in May 2007, it was recommended that countries with generalized HIV epidemics had to adopt a policy of provider initiated HIV counseling and testing (PITC) in clinical settings [9,15].

The policy guidelines suggest that, PITC to be offerd as routine care to all patients or clients attending at the health facilities, regardless of signs and symptoms of underlying HIV infection. The health care providers should however be needed to follow the guided principles of Testing and counselling, which include informed consent, counseling and confidentiality

with a view to significantly increase access to needed HIV treatment, care, support and prevention services [9,15]. It was estimated that 80% of people living with HIV in low- and middle-income countries do not know that they are HIV-positive [5]. A Survey conducted from several sub-Saharan African countries in 2006 suggested that only 10% of men and 12% of women had been tested for HIV, implying that the majority of HIV-infected persons in this region are unaware of their status [5].

WHO, United States governmental agencies such as the Centers for Disease Control and Prevention (CDC) and the United States Agency for International Development (USAID), and numerous non-governmental organizations responded with these by increasing the accessibility of testing and making HIV testing as more routine and part of general medical care [9, 15].

While voluntary counseling and testing generally relies on the patient initiating attendance at a testing site, the 'routine' offer of HIV testing in health facilities, also termed Provider Initiated Testing and Counseling (PITC) should also be provided to all clients. PITC is meant to complement other testing strategies such as voluntary Testing and Counseling (VCT) and community based testing (CBT) [9, 15].

Increased access to HIV testing and counseling is essential to promote early diagnosis of HIV infection, which in turn can maximize the potential benefits of life-extending treatment and care, and allow people with HIV to receive information and tools to prevent HIV transmission to others as well as avoiding of being re infected .

A study done in US In 1988 through 2003 comparing the high risk sexual behavior of HIV Positive people who were aware and unaware of their status, it was found that 68% reduction to people who are aware than unaware of their status, so it is believed that increased testing and counseling reduces the high risk of sexual behavior and increases the prevention interventions [6].

Several studies have been conducted and documented with high patient acceptance to PITC service, however it is unclear to what extent favors patient perception, since intentional and unintentional patients or clients might be forced to be tested, as well as other factors may confound a patient's decision making at the point of testing.

The study conducted in selected countries Kenya, Tanzania, and Zambia to determine the use of different types of HIV testing services and investigate perceptions and experiences on PITC shows that Proportions of the population formerly tested for HIV differed among districts and especially among women (54% Malindi, 34% Kapiri Mposhi and 27% Mbarali). Women were much more likely be tested than men in the districts which had scaled-up programs for preventing mother to child transmission of HIV (PMTCT) and it was accompanied by very limited pre- and post-test counseling that frustrated clients for their inability to 'opt-out' or decline from PITC [12].

A study done in Durban, South Africa on women's experiences testing for HIV in Antenatal Clinic, 25 pregnant women who received PITC, only half of them described the decision to be tested as entirely voluntary, while others felt indirectly or directly forced to do so, however authors argued that more research is needed to find models of testing that reconcile public health benefits with a woman's autonomy in risk assessment for herself and her unborn child [2].

PITC in Africa was first started in Botswana In 2004; Data from the first two and a half years of the program at Botswana revealed a dramatic increase in testing, from 60,846 being tested in 2004 to 157,894 in 2005, and to 88,218 in 2006. Testing rates in the population through this program were 40 per 1,000 persons, 93 per 1,000 persons, and 104 per 1,000 persons, per year respectively. Applied in western Kenya, an emergency department-based routine PITC program showed 97% testing acceptance rate (1331/1379) with 82% of HIV infected patients attending their first post-test follow up clinic visit. A total of 312 HIV-infected persons (22.7% prevalence) were identified during the 5-month period of this study [5].

A Study conducted in Botswana and Uganda between 2004 and 2006 describe knowledge and attitude of the general population. Among the respondents 93% indicated that they had decided to be tested on their own and 98% reported not regretting their decision to be tested, however, these positive results were confounded by 43% of those surveyed who accepted being tested non-voluntarily (i.e. through fear of the policy and treatment by healthcare workers) [5]. More over many authors have expressed concerns that routine opt-out approaches to HIV testing pose human rights challenges. Informed consent stems from the concept of autonomy whereby patients have the right of self-determination, to act as agents for their own good, balancing their own individual costs and benefits regarding the decision to test. In the context of HIV/AIDS, where people living with HIV (PLHIV) face stigma and the threat of discrimination, social/familial rejection and even violence, these principles are particularly important. It is therefore important for them to consent. There is a need for this consent to be informed in order to make routine testing more feasible in health facilities, WHO has recommended a streamlined approach to pre-test counseling involving processes such as group pre-test counseling, recorded or posted HIV educational materials, and improved community sensitization and education regarding HIV testing in general.

While PITC service is essential in clinical settings, still has sparked discussion to justify erosion in the quality of pre-test counseling, Integrating such a streamlined approach to pre-test counseling into a rushed, busy, and overwhelmed clinical setting may cause some concern regarding the quality of pre-test counseling in these settings. This predicted decline in the quality of pretest counseling, it is also cited as a further threat to informed consent as patients are theoretically provided with less information, particularly regarding the potential negative consequences of testing. Data in this regard are extremely limited and therefore care must be taken to safeguard and ensure adequate patient education and knowledge prior to the offer of testing. In addition, it was suggested that more researches are needed to better understand informed consent in the context of PITC and to evaluate the most effective approaches [5].

While scale up of access to HIV testing is critical, and ambitious research agenda is being put into operation in many countries, this effort needs to accompany and answer key questions and to test the effectiveness of various intervention models for HIV Test and Counseling. In addition, while the general public appears to have a positive perception of routine testing initiatives there is very limited information describing the perceptions of Health Care Workers regarding the feasibility and appropriateness of routine testing and counseling in their facilities, as well as their willingness to participate in these programme.

Testing attitudes and practices among clinicians in the era of CDC recommendations between January and April 2007, where by a web-based questionnaire was administered confidentially, to medical providers (including physicians, nurse practitioners, physician assistants, and nurse midwives) out Of the 656 surveyed medical staff, 398 (60.7%) responded, overall participants had limited knowledge of hospital-wide HIV testing policies and state laws, The majority of participants (84.2%) reported feeling mostly comfortable with consenting patients for HIV testing. Despite comfort with consenting patients, only 28.7% of participants reported no obstacles to offering HIV testing, the study also shows 20.3% of participants reported offering routine HIV testing to all patients as per updated CDC recommendations [3].

Following WHO and UNAIDS introduction to the guidance principles in provision of PITC in 2007, WHO conducted a survey in 2008 using a standardized tool to 18 countries to determine the status of HTC provision in the WHO Eastern and Southern Africa sub region. Out of 18 countries, 13 countries had both VCT & PITC and also were incorporated WHO /UNAIDS HTC guidance, among them 4 countries had VCT guideline only and one country has PITC guideline only.

Furthermore a report from this survey showed that, as a part of task shifting all 18 countries allowed nurses to conduct rapid test and 14 countries allowed trained counselors to also conduct for rapid test. In improving knowledge and skills to the PITC providers, the data found that 8 countries out of 18 had basic training HTC training package and 11 countries had personal trained in PITC [4].

On this survey it was also observed that among the challenges hindered the implementation of PITC service and this was mentioned by the 17 (94%) countries were; human resource constrain, weakened monitoring and evaluation system, lack of standardized HTC training package and limited HTC access to most vulnerable groups[4].

The study done in Zimbabwe in 2012 on assessment of the Ministry of Health and Child welfare provider initiated testing and counseling showed that, 83% of the health facilities had in limited space for provision of testing and counseling, moreover it was also observed to have stock out of test kits (reagents) that was hindering the PITC provision [14].

A study done in Harare - Zimbabwe in 2013 to six primary health care clinic on perceived barrier to HIV testing to 2,831 older children found that, only 1,534 (54.2%) consented to test for HIV and among children tested, one in 20 children diagnosed to have HIV infection, this brought the need for more effective PITC. It was also found that 1 out of 5 of guardian tested with the child diagnosed having HIV infection.

Furthermore among the reasons given by health care workers not offering PITC to all clients attended were staff shortage and unavailability of HIV testing kits, older children and children with no symptoms were not prioritized to be tested, and also children escorted with a male or a younger guardian were less likely to be offered HIV testing[11].

The study done in Mbeya Tanzania, on perceived barriers and attitudes of health care providers towards Provider-Initiated HIV Testing and Counseling in 2010 (nurses and clinicians), revealed that 35% demonstrated to have negative attitude, it was however cautioned that it might be difficult to generalize the findings to the other settings and recommended on more researches to be done to look at alternative models of PITC provision which are more efficient and acceptable by health care providers [10].

The study conducted in Zimbawe in 2012 assessing their Ministry of Health PITC program showed that all assessed facilities implemented PITC however to a lesser extent. The main constrains was shortage of human resource, materials and limited space for confidentiality of

HIV, this is critical to success of PITC Program, also there was stock out of HIV test kits in many Health facilities which was caused by increased demand of HIV Testing which was due to inadequate knowledge and skills in forecasting of HIV Test commodities to ensure success of PITC program [1].

Provision of HIV and AIDS related testing and counseling in Tanzania started in 1988 as an entry-point for engagement into treatment and care as well as for primary and secondary prevention efforts [9].

The first approach was Voluntary Counseling and Testing (VCT), which did not satisfy the need for the global goal hence other approaches were introduced to complement VCT Service, which included Home based Care Testing and Counseling (HBTC), and Provider initiated test and Counseling (PITC) [9, 15].

Data suggest that many patients receive their HIV diagnosis at a late stage of the disease after multiple clinical visits and contacts with the health care system, which likely represent missed opportunities for counseling and testing [5].

PITC in Tanzania started in 2007 and in Dar es salaam Region the scale-up of PITC was started in late 2007. This has been achieved through training of health care providers facilitated by Ministry of Health and Social Welfare (MOHSW) in collaboration with non-governmental organisations [9].

Tanzania surveillance report (2010) shows that the source of clients for HTC are self-referred which account for 81%, the remaining source being from other areas like Out Patient Department (OPD) (7%), In patient Department (IPD) (3%), Home Based Care (HBC) (6%), TB Unit (1%), and STI Clinic 1% [7], showing that there is a need for more researches looking on the contributing factors to the less percentage on clinical setting rather than VCT. However there was no information for the side of Health care provider in this report.

In spite Ministry of Health and Social Welfare through NACP developing the PITC guideline and training staff on PITC service yet there is limited information on the Health Care Providers' knowledge, attitudes and perceived barriers towards PITC provision. This is critical in ensuring delivery of PITC services according to the WHO recommendation which have limited information on PITC service on the side of Health Care providers since it was introduced in 2007. This study aims at determining knowledge on principles of PITC, attitude and practice of PITC provision among HCW in Government Health Facilities in Dar es Salaam Municipalities.

#### **CHAPTER THREE**

#### 3.0. METHODOLOGY

#### 3.1. Design of the study

Study type was a descriptive cross sectional

# 3.2. Study area

The study was conducted in Dar es Salaam Region. Dar es Salaam region is allocated along Indian Ocean and is bounded by Pwani Region, with Bagamoyo District in the North, Mkuranga District in the South, Kibaha District in the west and the Indian Ocean in the East. According to 2002 National population and housing census Dare salaam, occupying a geographical area of 1,397km², has a total population of 2,487,288. With a growth rate of about 3%, the current population of Dar es Salaam is assumed to be more than 3.5 million people [13].

The study was conducted at nine government health facilities i.e. 3 Hospitals, 3 Health centers and 3 Dispensaries in three Municipalities (Ilala, Temeke and Kinondoni) in Dar es Salaam region.

HIV prevalence in Dare salaam region is around 8.9 % [1]. The region has one referral hospital, three district hospitals, six health centers, and several dispensaries and also has 17 sites that provide comprehensive HIV care and treatment together with TB/HIV care and Treatment.

# 3.3. Study population

The study respondents were health care workers, working at government health facilities that providing comprehensive HIV care and treatment and TB/HIV services in Dar es Salaam.

# 3.4. Sampling and sample size

# 3.4.1. Sample size

The sample size, n, for health care workers in each stratum was calculated using the formula for estimating a single proportion as follows:

$$n = \frac{z^2 p(100-p)}{\varepsilon^2}$$

#### Where

z = standard normal deviate that corresponds to some statistical significance level (z=1.96 on assuming a significance level 0.05).

p = estimated proportion of workers with positive attitude towards provision of PITC (this is taken to be 65%, basing on a study done in Mbeya in 2010 [9]

 $\varepsilon = \text{margin of error on p (set at 10\%)}$ 

With these specifications, 
$$n = 1.96^2 *65(100-65) \approx 87$$
 $(10)^2$ 

# 3.4.2. Sampling

The sampling was done in two stages that is Health facilities and Health care Workers. Health facilities were stratified by level; i.e. in terms of hospitals, health centers and dispensaries. All the three district hospitals in Dar es Salaam were included in the study. Other three health facilities (health centers and dispensaries) from each of the other two strata were selected on a random basis.

Furthermore, proportional of health care workers to be interviewed obtained from the estimated number of health care workers had in each stratum. 75 %, 20 % and 5% of the respondents were from hospitals, health centers and dispensaries respectively.

Then an eligible health care worker who were present during the study period and who consented were recruited into the study until the minimum desired number was achieved.

# 3.5. Data collection techniques and tools

A structured questionnaires and observation checklist were used to interview the eligible HCWs in selected hospitals.

The questionnaire was meant to capture information on socio-demographic, knowledge on principles of PITC, attitude of health care workers and practice of PITC services.

An inventory checklist determined the availability of essential tools for PITC provision including guidelines, test kits and registers.

#### 3.6. Variables

# 3.6.1. Dependent variables

Knowledge, attitude and practice (all in relation to providing PITC service) constituted the dependent variables.

# 3.6.2. Independent variables

Variables considered to influence the dependent variables were derived from the following:

#### From the health care workers:

- 1. Age
- 2. Sex
- 3. Cadre
- 4. Exposure to PITC training
- 5. Perceived motivation

#### From the health facilities:

- 6. Availability of Test Kits
- 7. Space and privacy for PITC provision
- 8. Availability of PITC guidelines
- 9. Availability of basic tools and facilities

# 3.7. Recruitment and training of research assistants

Recruitment of research assistants considered the ability to work from morning to evening for the whole period; skills in filling in questionnaires, ability to read and speak Kiswahili. These were health personnel and PITC counselors.

Counselors that were working from other facilities different health facilities used for this study were used for data collection. Counselors have been selected so as to encourage interaction and maximize active participation with the study participants in order to obtain adequate information

Prior to fieldwork, counselors have been oriented to the assessment objectives, field plan (including timeline), and data collection tools in order to be familiar with the tool and purpose of the study.

#### 3.8. Pre-testing of questionnaires

Prior to data collection process pretest was done to ten health care workers working in HIV care and Treatment centers and TB/HIV Clinics to test for validity and reliability of the data collection tools, these respondents were not included in a study.

# 3.9. Data processing and analysis

Eight questions, of equal weights (1 point for a correct response), which were answered on a TRUE or FALSE basis were used to measure knowledge on principles of PITC provision, a total score of at least 5 points making the operational definition of "good" knowledge, otherwise knowledge was reported as "poor". Thus two categories (poor and good) were used to measure knowledge on principles PITC services provision.

Six questions of Likert scale were used to assess attitude towards PITC. The questions asked on how health workers felt regarding different aspects of PITC. Each question had a maximum score of 3 points giving the total score of 18 points, and categorized with negative attitude and positive attitude if the total score is < 10 and  $\ge 10$ , respectively.

Data were collected for two weeks, SPSS software program was used to enter the data. Main results were presented in frequency distribution tables and cross-tabulations, according to the study objectives. Associations between variables, particularly in determining the influence of the independent variables on the outcome (the dependent variable) was examined using the  $\chi^2$  test.

#### 3.10. Ethical considerations

Ethical clearance was obtained from MUHAS Directorate of Research and Publications. Permission to conduct the study was obtained from Dar es Salaam Municipal medical officers of Ilala, Kinondoni and Temeke. All participants were informed of the purpose of the study and informed oral and written consent was obtained from each health care worker before they could be enlisted to participate in the study. They were assured that the information will be presented in a way that nothing will be pointed any particular individual information, data handling and management and codes was used instead of names. The entire interview was done in private room. All participants were free to withdraw at any stage of the study.

#### **CHAPTER FOUR**

#### 4.0. RESULTS

#### 4.1. Introduction

This chapter presents findings of the study on knowledge, attitude and practice of provider initiated test and counseling (PITC) provision among 94 health care workers that was carried out in government health facilities in Dar es Salaam. It describes the socio-demographic characteristics of the respondents, their knowledge on PITC in relation to having been under supervision, mentored and received training in PITC. Moreover the chapter presents results on the health care workers' attitude towards PITC provision, practice and looks at availability of essential tools and supplies for PITC service which may influence the provision of HIV testing and counseling services.

# 4.2. Socio-demographic characteristics

As shown in table 1, there were a total of 94 participants involved in the study. Majority (82%) of study participants were females (77). Age group of 30 to 49 years had 67 respondents constituting 71% of all participants. Nearly two thirds (62 out of  $92 \approx (67\%)$  of the study participants had secondary or higher education, while 43 (46%) respondents were Assistant Clinical Officers and 25 (27%) were working in an in-patient department (IPD).

Table 1: Socio-demographic characteristics of the study participants

Socio-demographic	Category	N	%
attribute			
Age (years)	≤29	11	11.7
	30-39	33	35.1
	40-49	34	36.2
	≥50	16	17
Sex	Male	17	18.1
	Female	77	81.9
Level of education *	Primary	3	3.3
	Secondary	27	29.3
	Above secondary education(Diploma	62	67.4
	&Degree)		
Profession *	Medical Doctor (MD)	6	6.4
	Assistant Medical Officer (AMO)	6	6.4
	Clinical officer (CO)	11	11.7
	Assistant Clinical Officer (ACO)	43	45.7
	Trained Nurse (TN)	28	29.8
Department	Care & Treatment Clinic(CTC)	20	21
	Reproductive & Child Health (RCH)	15	16
	TB/HIV	12	12.8
	Outpatient department (OPD)	22	23.4
	In patient department (IPD)	25	26.6

<sup>\*</sup>One participant did not indicate the level of education while two participants didn't record their professions.

# 4.3. Level of knowledge on principles of PITC provision

Health care workers were assessed on their knowledge about principles of PITC provision. Level of knowledge was categorized as either poor or good depending on the score from responses to eight questions (question 6 to 13 in the appendix). Details of this operational definition of poor or good knowledge have been provided in section 3.8 of this dissertation. On the basis of this, 89 respondents (95.7%) were thus found to have good knowledge on the principles of PITC provision. However, as shown in table 2, level of knowledge on PITC was clearly found to be independent on whether a health workers have received some training on PITC provision or not.

Table 2: Level of knowledge on principles of PITC provision by training

PITC Training *	Level of knowledge	Total	
	Good (%)	Poor (%)	(%)
Yes	43 (95.6)	2(43)	45 (100)
No	46 (95.8)	2 (4.2)	48 (100)
Total	89(95.7)	4(4.3)	93*(100)

<sup>\*</sup> There was missing information on training from one participant

# 4.4. Attitude of health care workers towards PITC provision

Good or poor attitude was arrived at depending on responses to questions 14 to 19 (appendix 2). A respondent was regarded as having good attitude if one answered affirmatively four questions out of the six questions (section 3.8 in the methodology chapter). Otherwise, the respondent was categorized as having poor attitude. A substantial majority; that is 81 (91%) out of 89 respondents were found to have good attitude towards provision of PITC services.

Furthermore, there was evidence of a significant association between attitude and being supervised. In particular, as presented in table 3, those under supervision were more likely to have positive attitude than those under no supervision (P=0.005).

Table 3: Supervision to HCWs in relation to attitude towards PITC practice

Supervision	Attitude		Total	
	Good (%)	Poor (%)	(%)	
Yes	53 (98)	1 (2)	54 (100)	
No	28 (80)	7 (20)	35 (100)	
Total	81(91)	8(9)	89 * (100)	

<sup>(</sup>P=0.005).

<sup>\*</sup>Cases with missing information were excluded from the analysis

# 4.5. Practice of PITC services by health care workers

Provision of PITC services was reported by 43 (95.6%) health workers among those with training compared to 26 (54.2%) in health workers without training on PITC (table 4); this difference is statistically significant (P<0.001). Furthermore, as shown in table 5, provision of PITC with supervision had strong evidence of association between providing PITC service and being supervised (P<0.001, OR 27.5). Likewise 55 (94.8%) health care workers who were working under supervision reported to practice PITC compared with just 14 (40%).among those under no supervision.

**Table 4: Practice of PITC by training on PITC** 

PITC Practice		Total (%)
Yes (%)	No (%)	
43 (95.6)	2 (4.4)	45 (100)
26 (54.2)	22 (45.8)	48(100)
69 (74.2)	24 (25.8)	93 * (100)
_	43 (95.6) 26 (54.2)	43 (95.6) 2 (4.4) 26 (54.2) 22 (45.8)

(P<0.001)

<sup>\*</sup>Information on training was not recorded in one participant.

**Table 5: Provision of PITC by supervision** 

Supervision	PIT	Total (%)	
	Yes (%)	No (%)	
Yes	55 (94.8)	3(5.2)	58 (100)
No	14 (40)	21 (60)	35 (100)
Total	69(74.2)	24 (25.8)	93 * (100)

(P < 0.001, OR 27.5)\*One participant did not indicate history of being supervised

# 4.6. Availability of privacy, guidelines, registers and reagents

On one hand facilities that are related to PITC provision, focus was put at availability of privacy for providing the service at the existing consultation rooms in health facilities of different levels. On the other hand, availability of supplies for provision of PITC service was assessed through paying attention to the presence of testing reagents and guidelines for PITC services. Table 6 summarizes findings on availability of important PITC-related facilities and supplies at nine health facilities, the data from this study also found that all 9 health facilities had PITC registers.

Table 6: Number of health facilities with privacy environment, guidelines and reagents

Type of HF	Privacy Guidelines		elines	Reagents		
	Yes	No	Yes	No	Yes	No
Hospital	3	0	2	1	3	0
H/Centre	2	1	2	1	3	0
Dispensary	2	1	2	1	3	0
Total	7	2	6	3	9	0

It was observed that there was lack of privacy in two health facilities, one being a health center and the other being a dispensary, while in one hospital, one health center and one dispensary guidelines on PITC were not available. Otherwise in all (100%) the nine health facilities in which observations were made, all essential facilities and supplies namely consultation room, privacy of the consultation room, guidelines and testing reagents were found to be available.

# 4.7. Preferred places for PITC provision

Participants mentioned RCH 88 participants (98.9%), OPD by 88 participants (98.9%) while 86 96.6%) participants mentioned IPD (as the most preferred places for PITC provision, likewise pharmacy locations and other places, that included TB clinics, were suggested by 24 participants(26%) and 31 (35%), respectively. The respondents had a chance to mention to more than one section.

Table 7: Preferred places for counseling and testing

Place	n	9/0
RCH	88	98.9
WARD	86	96.6
PHARMACY	24	26.9
OPD	88	98.9
OTHERS	31	35

#### **CHAPTER FIVE**

### 5.0. DISCUSSION

Level of knowledge on principles of PITC provision among the health care workers was quite high as it was reported (95.7%) of the responded had good knowledge on PITC and this did not differ between trained and untrained staff. This is due to the fact that majority of the study respondents had medical background and observed to have secondary or above secondary education (Diploma &Degree). This finding is different from the web based study conducted among medical providers in 2007 which showed that 61% of the respondents had limited knowledge of HIV testing policies and laws. This is due to fact that at the time the web study was conducted in 2007 at the same time WHO/ UNAIDS introduce the guidance of PITC provision in Health facilities as a standard component of medical care and since then it was incorporated in the study curriculum.

A high proportion of respondents with good attitude towards PITC were recorded in this study. The findings is similar to the web-based study conducted in 2007, where questionnaire was administered confidentially to medical providers, specifically physicians, nurse practitioners, physician assistants, and nurse midwives where majority (84%) of the participants showed positive attitude towards provider initiated HIV testing for clients. Likewise, the findings are similar with the study conducted in Mbeya, Tanzania, 2010 which revealed that 65% of the respondents demonstrated a positive attitude towards PITC provision [10]. Thus findings from both studies are similar to those in the present study which showed that majority of the respondents had good attitude towards PITC. There is consistently high percentage of respondents showing positive attitude on PITC provision in all three studies. This is due to fact that same content used in the tool to assess attitude.

Providing PITC services by health workers was found to be strongly associated with supervision (OR 27.5). In particular, health workers under supervision were found to be more likely to practice PITC than those under no supervision. The findings are similar to study conducted in Mbeya in 2011 which showed that 67% reported had to ever practice PITC

services. This is probably not unexpected, since supportive supervision is likely to facilitate and encourage provision of PITC services.

The findings from this study revealed that most of the facilities visited observed to have guidelines and registers (67%), privacy (78%) and reagents (100%) for the provision of PITC services. This finding is different from the previous study conducted in 2007where only 20.3% of the respondent reported to offer routine HIV testing and counseling to all patients as per updated CDC recommendations [3]. This observation could be one of the obstacles to better PITC provision.

Moreover, the finding is different from the study conducted in Zimbabwe in 2012 which showed that 83% of facilities had inadequate space to provide confidential counseling and had stocks-outs of HIV rapid test kits (November 2009 to January 2010). As a result HIV testing and counseling services were either not offered at all or were given to priority patients. This was due to inadequate knowledge and skills towards HIV testing logistics system as evident of stock out due to increase in demand of HIV Test kits something that was caused by poor forecasting and quantification.

Furthermore a study conducted in Mbeya in 2010 showed that 62.9 % of facilities had HIV rapid test kits in place. This could be due to the ongoing on job training and supportive supervision where majority of HCP have adequate skills and knowledge of HIV test kits logistics system.

In this study majority of the respondents preferred counseling and testing to be performed at RCH, IPD and OPD however few responded to take place at pharmacy and other places, this finding is different from the Tanzanian surveillence report (2010) [7] that showed that few clients were tested in the same places as shown above. This could be due to the fact that currently PITC services are incooporated in policies and guidelines as a standard medical care within the health facility and should be conducted in each department.

# **5.1. LIMITATIONS**

- 1. Findings from this study were self-reported, expect for those used observational checklist, therefore the reality of the response cannot be assured since the participants could give a preferred response.
- 2. The respondents had medical background therefore the findings of knowledge and attitude towards PITC provision results could be interfered with one's professional.

### **CHAPTER SIX**

### 6.0. CONCLUSIONS AND RECOMMENDATIONS

## **6.1. CONCLUSIONS**

- 1. Level of knowledge on principles of PITC among health care workers based at health facilities is acceptably high but is independent of the level of education and previous training on PITC.
- 2. Majority of health care workers have good attitude towards PITC. Moreover, attitude is found to be influenced by supervision in a manner that those under some form of supervision are more likely to have a good attitude than those under no supervision. However, attitude is independent of level of education as well as of one's profession.
- 3. About three quarters of health workers at health facilities practice PITC. A health worker who is under supervision is more likely to practice PITC than one who is not under supervision. Thus supervision promotes both good attitude towards PITC and providing PITC service, as well.
- 4. Essential PITC-related supplies and facilities are available in most of the health facilities.

### **6.2. RECOMMENDATIONS**

- 1. Although it is less than half (3 out of 9) of the participating health facilities which were found to have no guidelines on provision of PITC services, guidelines are essential tools and therefore National Aids Program, through Council Health Management Team, should provide them to all health facilities involved in PITC provision. Guidelines are important as they are meant to provide the service following the principles of HIV testing and counselling.
- 2. Privacy in terms of either having one person in a room or partitioning the room needs to be maintained by all health facilities that provide PITC services.
- 3. There is a need of conducting on job training and regular supportive supervisions to health workers highly to ensure PITC service is practiced as per guideline.

### **REFERENCES**

- 1. Assessment of the Zimbabwe Ministry of Health and Child welfare Provider initiated HIV Testing and Counseling programme 2012, <a href="http://www.biomedcentral.com">http://www.biomedcentral.com</a>
- 2. focuses area HIV testing and counseling, http://www. Aidstar- one .com retrieved on 10<sup>th</sup> September 2012
- 3. HIV Testing Attitudes and Practices Among Clinicians in the Era of Updated Centers for Disease Control and Prevention Recommendations, http://www. Research gate net /publication, retrieved on 10<sup>th</sup> September 2013
- 4. HIV Testing and Counseling Services in the WHO African Region, http://Error! Hyperlink reference not valid., retrieved on 27<sup>th</sup> September 2014
- 5. Joseph Becker et al (2009;3:4) *Provider Initiated Testing and Counseling (PITC) for HIV in resource-limited clinical settings*: important questions unanswered. The Pan African Medical Journal.
- 6. Meta Analysis High risk sexual behaviour in Persons Aware and Unaware They Are
  Infected with HIV in the United states, https://msrc.fsu.edu/ retrieved on 20<sup>th</sup>
  September 2012
- 7. NACP (2011) HIV/AIDS/STI Tanzania Surveillance Report
- 8. NACP (2009) *National Guideline for the clinical management of HIV and AIDS* 3<sup>rd</sup> edition, Dar es salaam, Tanzania.
- 9. NACP (2008) National guideline for HIV Test and Counseling in clinical setting Dar es salaam Tanzania
- 10. Perceived barriers and attitudes of health care providers towards Provider-Initiated HIV Testing and Counseling (2010), Mbeya –Tanzania, http://www.panafrican-med-journal.com/retrieved on 18 June 2012
- 11. Perceived Barriers to Provider-Initiated Testing and Counselling for Children in a High HIV Prevalence Setting: 10.1371/journal.pmed.1001649, retrieved on 27<sup>th</sup> September 2014

- 12. Practicing provider-initiated HIV testing in high prevalence settings: consent concerns and missed preventive opportunities, http://www.biomedcentral.com retrieved on 15<sup>th</sup> September 2012
- 13. Strategic plan 2010/11 2012/13 Dar es salaam Region commissioner's office
- 14. UNAIDS/WHO policy statement on HIV testing. Geneva: UNAIDS/WHO; 2004
- 15. UNAIDS, WHO HIV/AIDS Programme. *Guidance on Provider-Initiated Testing and Counseling in Health Facilities*. World Health Organization. May, 2007
- 16. WHO progress report (2008) Towards Universal access scaling up priority HIV/AIDS interventions in the health sector

# **APPENDICES**

# Appendix 1: Questionnaire (English version)

# **Geral instructions:**

- 1. Information collected will be strictly confidential
- 2. do not write names of interviewee on the questionnaires
- 3. Circle the numbers and check the boxes of an answer corresponding to the responce, some questions may have more than one response.
- 4. Write a given responses to the space provided for the open ended questions

Identification number
Name of Health Facility
Level of Health Facility: 1=hospital; 2=health center; 3=dispensary
I: Socio-demographic characteristics
1. Age
2. Sex
1. Male
2. Female
3. Education Level
1.Primary Education
2. Secondary Education □
3. Higher Education □

# II: Professional details

4. CADER (check the box when	re appropriate)
1. ☐ Medical officer	2.   Assistant Medical officers
3. ☐ Clinical officer	4. ☐ Trained Nurse
6. Other specify	
5. DEPARTMENT (check the	box where appropriate)
	☐ Reproductive child and maternal clinic 3.☐ TB/HIV☐ In Patient Department 6.☐ Pharmacy

# III: Knowledge on PITC principles

# **Instructions: circle 1 for True and 2 for False**

Opinion statement	1= True	2= False
6. PITC as a service is offered to early Identification of client infected with HIV for HIV prevention	1	2
7. In PITC service testing must be voluntary and confide	1	2
8. It is important to consent clients before testing		
9. Clients have the right to decline the test and provider should not reject to give the service	1	2
10. Clients should not test HIV against their will, without their knowledge and information	1	2
11. Provider-initiated HIV testing and counseling should not be	1	2

taken as mandatory HIV testing		
12. Testing must be linked to appropriate HIV prevention, treatment, care and support services	1	2
13. PITC service complement VCT	1	2

# IV: Willingness and attitude of providing PITC

# Instructions: for questions 14-19 circle one letter that, in your view, corresponds to the best option

- 14. How would you describe the overall acceptance of client on provision of PITC in a consultation room?
  - A) Always good
  - B) Sometimes good
  - C) Always bad
  - 15. How would you describe the additional workload in provision of PITC
    - A) Very comfortable
    - B) Somewhat comfortable
    - C) Not comfortable
  - 16. How would you describe on the importance of integrating test and counseling in general clinic care
    - A) Always good
    - B) Sometimes good
    - C) Always bad

-	er test and cou	unselling reduces the number of Hospital attendance
B) Agr	ree	
C) Disa	sagree	
18. Do PITC be prov	vided to only	clients with HIV related signs and symptoms
A) Str	rongly agree	
B) Ag	gree	
C) Dis	sagree	
19. How comfortable initiated by a provide		n discussing with the client on HIV testing and counseling
A) Verg	y comfortabl	le
B) Som	newhat comfo	ortable
C) Not	comfortable	
20. As not to miss on	pportunity of	f HIV counselling to sick people where you do think is
appropriate place for	counselling	
Antenatal Clinic 1	l□ Yes	2□ No
IPD (wards) 1	<b>1</b> □ Yes	2□ No
Pharmacy 1	l□ Yes	2□ No
OPD 1	<b>1</b> □ Yes	2□ No
Any other specify		

21. As not to miss	opportunity of	of HIV Testing	g to sick people	where do you think is
appropriate place	for testing			
Antenatal Clinic	1□ Yes	2□ No		
IPD (wards)	1□ Yes	2□ No		
Pharmacy	1□ Yes	2□ No		
OPD	1□ Yes	2□ No		
V: PITC service	provision			
Instructions: che	ck one of the	boxes (Yes/N	<b>(0)</b>	
22. Are you traine	ed on PITC?	<b>1</b> □ Ye	2□ No	
23. Do you provid	le PITC servic	e? 1□ Yes	2□ No	
24. Do you get su	ipportive supe	rvision on PI	ΓC? <b>1</b> □ Yes	2□ No
VI. Check list for health facility	· availability	(tools and fac	cilities space/re	ooms) for PITC service at a
Name of Health	Facility			
Level of Health I	Facility: 1=ho	spital; 2=hea	lth centre; 3=0	lispensary 🗌
(Note: observe, as	ssess and reco	ord)		
1. Is there a design	nated room fo	r PITC service	es? 1□ Yes	$2\square$ No (if no go to Q.3)
2. Does the room	provide adequ	ate privacy?	1□ Yes	2□ No
(Note: adequate f	for this study,	means enough	n space and one	e person in a room or have
partition between	providers)			
3. Are rapid test k	its available?		1□ Yes	2□ No
4. Are PITC regis	ters available:	)	1 ☐ Yes	2□ No
5. Are PITC guide	elines availabl	e?1□ Yes	2□ No	

# **Appendix 2: Questionnaire (Swahili Version)**

# DODOSO LA UTAFITI KUHUSU MITAZAMO, UZINGATIAJI KANUNI NA UTOAJI WA UNASIHI UNAOANZISHWA NA WATOA HUDUMA WA AFYA

Numba ya utafiti
Jina la Kituo
Aina ya kituo: 1=hospitali; 2=Kituo cha Afya; 3= Zahanati □
Maelezo
1. Maelezo yoyote yatakayokusanywa yatatunzwa kwa siri
2. Jina la msailiwa halitakiwi lijazwe kwenye dodoso hili
3. Zungusha alama ya mdura kenye namba au herufi na weka alama ya vema katika visanduku
yenye maelezo yanayo shabihana na jibu
4. Andika majibu ya maswali yaliyoachwa wazi
I: Maelezo binafsi
1. Umri
2. Jinsia
1. Mme  2. Mke
3. Una kiwango gani cha elimu
1.Elimu ya msingi ☐ 2. Elimu ya Sekondari ☐
2.Elimu ya Juu (Stashada au shahada ) 🗌

# II: Taaluma 4. fani 1. □ Daktari (MD) 2. □ Daktari Msaidizi (AMO) 3. □ Tabibu (CO) 4. □ Muuguzi msajiliwa 6. Nyingineyo taja ----- 5. Idara 1. □ Kliniki ya utoaji tiba na dawa kwa wenye VVU 2. □ Kliniki ya mama na Mtoto 3. □ Kliniki ya kifua kikuu 4. □ idara ya wagojwa wan je (OPD) 5. □ idara ya wagojwa waliolazwa (IPD)6. □ sehemu ya kuchukulia dawa

# Maelekezo: Zunguzishia namba uliyochagua 1 ikiwa jibu ni kweli na 2 ikiwa jibu ni si kweli

III: Uzingatiaji wa wa kanuni za ushauri nasaha

Kwa mtazamo wako	1= kweli	2= si kweli
6. ushaurinasaha na upimaji wa virusi vya ukimwi unaoanzishwa na mtoa huduma wa Afya, unatolewa ili kuweza kuwagundua na kuzuia maambukizi ya virusi vya ukimwi	1	2
7. ushaurinasaha na upimaji wa virusi vya ukimwi unaoanzishwa na mtoa huduma wa Afya, unatakiwa kuwa wa huru, hiari na siri	1	2
8. Ni muhimu kwa wateja kutoa ridhaa yao kabla ya kupima virusi vya ukimwi		

9. Wateja au wagojwa wana haki ya kukataa kupima virusi	1	2
vya ukimwi bila kukataliwa kupewa hudulma au kutengwa		
na watoa huduma ya Afya		
10. Wateja au wagonjwa hawatakiwi kupimwa bila ridhaa	1	2
yao na hawatakiwi kupimwa bila kupewa maelezo yaliyo		
kamili ya upimaji		
11. ushaurinasaha na upimaji unaoanzishwa na mtoa	1	2
huduma wa Afya, hautakiwi kuchukuliwa kama ni upimaji		
wa virusi vya vya ukiwi kwa lazima		
12. Upimaji lazima uelekeze Namna ya kuzuia, kutibu,	1	2
kuhudumia na namna ya kupata misaada kwa watakaopata		
maumukizi ya ukimwi		
13. ushaurinasaha na upimaji unaoanzishwa na mtoa	1	2
huduma wa Afya ni huduma ya nyongeza kwa ushauri		
nasaha wa hiari		

**IV:** Utayari na mitazamo ya ushaurinasaha na upimaji unaoanzishwa na mtoa huduma wa Afya

# Maelekezo: Kuanzia swali la 14-19 unatakiwa kuzungushia herufi moja unayofikiri ni kuwa ni chaguo lako sahihi

14. unawezaje kuelezea wagonjwa au wateja wanavyoikubali huduma ya ushaurinasaha na upimaji unaoanzishwa na mtoa huduma wa Afya inapotolewa kwenye chumba cha matibabu au cha kutlea Huduma nyingine za kifya ?

- A) Mara kwa mara wanaikubali
- B) Mara Chache wanaikubali
- C) Mara kwa mara haikubaliki
- 15. Unawezaje kuelezea ongezeko la kazi ya ziada linalotokana na kutoa huduma ya ushaurinasaha na upimaji unaoanzishwa na mtoa huduma wa Afya
  - A) Niko sawa na naifurahia sana huduma hii
  - B) naifurahia Kiasi huduma hii
  - C) siifurahii kabisa hii
- 16. Unawezaje kuelezea juu ya umuhimu wa kuunganisha ushaurinasaha na upimaji unaoanzishwa na mtoa huduma wa Afya kwenye utoji huduma ya Afya
  - A) Nzuri Mara kwa mara ni nzuri
  - B) Nzuri- Mara Chache ni nzuri
  - C) Mbaya Mara kwa mara ni mbaya
- 17. ushaurinasaha na upimaji unaoanzishwa na mtoa huduma wa Afya unapungunguza idadi kubwa ya wagonjwa wanaohudhuria kwenye Hospitali na vituo vya Afya?
- A) Nakubaliana Kabisa
  - B) Nakubali kiasi
  - C) Sikubaliani
- 18. ushaurinasaha na upimaji unaoanzishwa na mtoa huduma wa Afya utolewe pale tu mtu anapokuwa na dalili za maambukizi ya virusi vya ukimwi/UKIMWI
  - A) Nakubaliana kabisa
  - B) Nakubali kiasi
  - C) Sikubaliani

19 . unajisikiaje wakati unapojadiliana i	na mgonjwa	au mteja	swala la huduma ya
ushaurinasaha na upimaji unaoanzishwa na	mtoa huduma	a wa Afya	kwenye chummba cha
kutibu au kutoa huduma ya kiafya			
A) Najisikia vizuri sana			
B) Najisikia Vizuri ki			
C) Sijisikii vizuri			
20 . Ili kutokupoteza nafasi ya upimaji wa vi	rusi vya Ukim	wi kwa wag	gonjwa wanaokuja kituo
cha Afya unadhani au kufikiri sehemu nzuri	ya utoaji wa u	shauri nasal	ıa
Kliniki ya mama na mtoto	1□ Yes	2□ No	
Idara ya wagonjwa waliolazwa (wodini)	1□ Yes	2□ No	
Sehemu ya uchukuliaji dawa	1□ Yes	2□ No	
Idara ya wagonjwa wa nje (OPD)	<b>1</b> □ Yes	2□ No	
Nyingineyo taja		-	
21 . Ili kutokupoteza nafasi ya upimaji wa vir	usi vya Ukimv	wi kwa wag	onjwa wanaokuja kituo
cha Afya unadhani au kufikiri sehemu nzuri	ya upimaji		
Kliniki ya mama na mtoto	1□ Yes	2□ No	
Idara ya wagonjwa waliolazwa (wodini)	1□ Yes	2□ No	
Sehemu ya kuchukulia dawa	1□ Yes	2□ No	
Idara ya wagonjwa wa nje (OPD)	1□ Yes	2□ No	
Nyingineyo taja			
V: Utoaji wa huduma ya ushaurinasaha na up	oimaji unaoan	zishwa na r	ntoa huduma wa Afya
Maelekezo: weka alama ya vema katika ki sa	nduku (Ndio/	Hapana)	
22. Je umepata mafunzo yaUtoaji wahudi	uma ya ushaur	inasaha na	upimaji unaoanzishwa
na mtoa huduma wa Afya?	<b>1</b> □ Ndio	2□ Hap	ana

23 Je unatoahuduma ya ushaurinasaha na u	pimaji unaoar	nzishwa na mtoa huduma wa
Afya?	<b>1</b> □ Ndio	2□ Hapana
24 Je unapata usimamizi na uelekezi wa kut	oahuduma ya	ushaurinasaha na upimaji
unaoanzishwa na mtoa huduma wa Afya	? <b>1</b> □ Ndio	2∏Hapana
VI: Angalia uwepo wa uwepo wa vifaa vifuata	ıvyo pamoja ı	na uwepo wa nafasi ya
kufanyia kazi wa utoaji wa ushauri nasaha i	ıa upimaji un	aoanzishwa na mtoa Huduma
wa Afya		
Jina la Kituo		
Aina ya kituo: 1=hospitali; 2=Kituo cha Afya	u 3— Zahanat	;
Ama ya kituo: 1=nospitan; 2=Kituo cha Aiya	i, 5= Zananat	.1
(muhimu: Angalia, chunguza na rekodi)		
l. Je kuna chumba maalum cha kutlea huduma y	a ushauri nasa	aha na upimaji unaoanzishwa na
ntoa Huduma wa Afya ?1□ Ndio 2□ hapa	ana (kama jibu	ni hapana nenda swali la.3)
2. je chumba kina usiri kwa mgonjwa au mteja?	1□ No	dio 2□ Hapana
(Analizo: kwa utafiti huu, ya inayotosheleza ind	a maana nafas	i inatosha, kuna mtu mmoja
katika kila chumba au kuna utenganisho unaowe	ezesha watoa l	huduma wasionane na
kusikiana)		
3. vitendanishi vya kupimia vipo vya kutosha?	1 \	Yes 2□ No
4. je kuna rejista zaushauri nasaha na upimaji u	naoanzishwa n	a mtoa Huduma wa Afya ?
l □ Ndio 2□ Hapana		
5. je kuna miongozo ya utoaji huduma wa ushau	ri nasaha na u	pimaji unaoanzishwa na mtoa
Huduma wa Afya ? 1□ Yes	2□ No	

## **Appendix 3: Informed Consent Form (English Version)**

# MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES DIRECTORATE OF RESEARCH AND PUBLICATIONS, MUHAS

## CONSENT FORM

Consent to participate in study:
ID NO:
KNOWLEDGE, ATTITUDE AND PRACTICE OF PROVIDER INITIATED TEST AND
COUNSELING (PITC) PROVISION AMONG HEALTH CARE WORKERS IN
GOVERNMENT HEALTH FACILITIES IN DAR ES SALAAM
Consent to participate in study:
Principal Investigator: Emerensiana Nampanda

Introduction

This consent form contains information about the research named above. In order to be sure that you are informed about being in this research, we are asking you to read (or have read to you) this consent form. You will also be asked to sign it (or make a statement of whether you agree or not in front of a witness). This consent form might contain some words that are unfamiliar to you. Please ask us to explain anything you may not understand.

Reason for the research: you are being asked to take part in this research to determine knowledge, attitude and practice of provider initiated test and counseling (PITC) provision among health care workers in government health facilities in Dar es Salaam and therefore identify gaps and challenges and explore strategies that address the challenges available.

General Information about *the Research*, to determine knowledge, attitude and practice of provider initiated test and counseling (PITC) provision among health care workers in government health facilities in Dar es Salaam

Your participation in the research if you agree to participate in this study, you will be required to answer a series of question that have been prepared for the study through interview in order to obtain the intended information. You will be interviewed for 10-30 minutes.

Possible risks: you will spend your time for a maximum of 30 minutes answering some questions.

Possible benefits you will not be paid for participating in this study and will receive no other form of compensation however the findings from your participation will further knowledge of and improve practices in the provision of provider initiated test and counseling (PITC) provision in your country and across the world.

Participating in this study is completely voluntary. If you decide not to be in the research, you are free to do so. Your decision will not affect the health care you would normally receive.

Confidentiality we will protect information about you and your participation in this research to the best of our ability. Your identifiable particulars such as names, phone numbers and your address will not be taken and you will not be named in any reports.

If you have a problem or have other questions about the research or problems that you think might be related to taking part in this research or any questions, please call Emerensiana Nampanda, Muhimbili University Of Health and Allied Sciences, P.O Box 65001,Dar es Salaam. Tel: 0784621836. If you need more help, you can also contact Dr Cyprian Makwaya P.O.Box 65001, Dar es Salaam.

Your rights as a participant this research has been reviewed and approved by the IRB of Muhimbili University of Health and Allied Sciences. An IRB is a committee that reviews research studies in order to help protect participants. If you have any questions about your rights as a research participant you may contact Chairperson MUHAS IRB, address P.O. Box 65001, Dar es salaam, telephone number 2150302-6.

Volunteer agreement,

The above document describing the benefits, risks and procedures for the research titled (KNOWLEDGE, ATTITUDE AND PRACTICE OF PROVIDER INITIATED TEST AND COUNSELING (PITC) PROVISION AMONG HEALTH CARE WORKERS IN GOVERNMENT HEALTH FACILITIES IN DAR ES SALAAM) has been read and explained to me. I have been given an opportunity to ask any questions about the research and they have been answered to my satisfaction. I agree to participate as a volunteer.

Signature (or thumb print) of Participant	
Signature of witness (if participant cannot read)	
Signature of research assistant:	
Date of signed consent.	

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

49

**Appendix 4 :Informed Consent Form (Swahili Version)** 

CHUO KIKUU CHA AFYA NA SAYANSI SHIRIKISHI, MUHIMBILI

KURUGENZI YA UTAFITI NA MACHAPISHO

DODOSO LA UTAFITI KUHUSU MITAZAMO, UZINGATIAJI KANUNI NA UTOAJI

WA UNASIHI UNAOANZISHWA NA WATOA HUDUMA WA AFYA KWA

WAHUDUMU WA AFYA, DAR ES SALAAM.

FOMU YA RIDHAA

Namba ya utambulisho: \_\_\_\_\_

Ridhaa ya kushiriki kwenye utafiti

Mtafiti Mkuu: Emerensiana Nampanda

Utangulizi

Fomu hii ya ridhaa ina taarifa zinazohusiana na utafiti wa jina lililotajwa hapo juu.

Ilikuhakikisha kuwa unaelewa juu ya utafiti huu, tunakuomba kusoma au kusikiliza wakati

ukisomewa. Utaombwa kuweka saini au kuweka alama ya kukubali au hukubali mbele ya

shahidi. Ikiwa fomu hii ya ridhaa ina maneno mengine ambayo huyaelewi, tafadhali uliza

iliupewa ufafanuzi na maelekezo.

Madhumuni ya Utafiti. Tunakuomba ushiriki kwenye utafiti huu juu kuainisha masuala

yahusuyo mitazamo, uzingatiaji kanuni na utoaji wa unasihi unaoanzishwa na watoa huduma

wa afya kwa wahudumu wa afya katika maeneo yasiyo ya kazi. Pia kupata maelezo juu ya

mapungufu yaliyopo katika utoaji wa huduma hiyo,changamoto na kutambua njia zinazoweza

kukabili changamoto hizo.

Taarifa kuhusu utafiti, utafiti unafanyika ili kuangalia mitazamo, uzingatiaji kanuni na utoaji

wa unasihi unaoanzishwa na watoa huduma wa afya kwa wahudumu wa afya ,Dar es salaam.

katika maeneo ya kazi katika vituo vya afya vilivyopo.

Ushiriki wako katika utafiti, Ikiwa utakubali kushiriki katika utafiti huu, utahitaji kujibu maswali kadhaa ambayo yameandaliwa katika utafiti huu ilikuweza kupata taarifa zinazohitajika. Itachukua kati ya dakika 10 hadi 30 katika kujibu maswali hayo.

Usumbufu unaweza kujitokeza, utatoa muda wako wakati wa kujibu maswali kwa kipindi cha takribani dakika 10 hadi 30.

Faida ya ushiriki, Ushiriki wako katika utafiti huu ni wa kujitolea, hivyo hauna malipo ya fedha au fidia yeyote, lakini matokeo ya utafiti huu utapanua uelewa na kutoa fursa ya kuboresha huduma za ushaurinasaha na upimaji unaoanzishwa na mtoa huduma wa Afy katika nchi hii na duniani kote.

Kama utaumua kutoshiriki kwenye utafiti, Ushiriki katika utafiti ni suala la kujitolea. Unauhuru wa kuamua endapo unapenda kushiriki au la. Uamuzi wako hautaathiri huduma ya afya ambayo huwa unaipata.

Usiri, Taarifa zitakazokusanywa kutoka kwako kupitia dodoso la utafiti huu kutakuwa na usiri kadiri tunavyoweza. Pia hatutaandika taarifa za utamburisho binafsi kama vile jina, nambari ya simu na hata anuani yako na pia jina lako halitatajwa kwenye ripoti ya utafiti huu.

Kama una Tatizo au Swali lolote, Kama una tatizo unalofikiri linahusiana na kushiriki kwako katika utafiti huu au una swali lolote juu ya utafiti huu, tafadhali piga simu 0784621836 ya Emerensiana Nampanda,Chuo Kikuu Cha Afya na Sayansi ya Tiba Muhimbili,S.L.P 65001,Dar es Salaam. Ikiwa unahitaji maelezo zaidi pia wasiliana na Dr Cyprian Makwaya,Chuo Kikuu cha Afya na Sayanai ya Tiba Muhimbili,S.L.P 65001,Dar es Salaam, mshauri katika utafiti huu

## Haki ya Mshiriki

Utafiti huu unapitiwa na kupata rishaa ya ruhusa ya utafiti (IRB) ya Chuo cha Muhimbili. Kamati ya kutoa ruhusa ya utafiti ilipitia maelezo ya kufanyika kwa utafiti huu ili kuhakikisha inajiridhisha na maelezo juu ya washiriki ilikuwalinda. Ikiwa unaswali lolote kuhusu staili zako kama mshiriki unaweza kuwasiliana na Mwenyekiti wa kamati ya utafiti na uchapishaji, S.L.P 65001, Dar es salaam, Simu 2150302-6

# Makubaliano ya Hiari

Nyaraka hii inaelezea juu ya faida, madhara, na taratibu za utafiti wenye kichwa cha habari hapo juu. Nimesoma na kuelezewa na nimepewa nafasi ya kutosha kuuliza maswali na nimepewa majibu ya kuridhisha. Nakubali kushiriki kwa hiari.

Sahihi (au alama ya dole gumba) ya Mshiriki
Sahihi ya shahidi (kama mshiriki hawezi kusoma)
Sahihi ya msaidizi wa mtafiti
Tarehe makubaliano valinosainiwa

Nakubaliana kwamba taratibu na madhumuni, faida za msingi, na changamoto au hasara zinazoweza kutokea kwa kushiriki kwenye utafiti huu zimeelezwa kwa ufasaha kwa mshiriki hapo juu.