

**THE ROLE OF COMMUNICATION IN SUPPORTING COMMUNITY ENGAGEMENT
IN HIV CLINICAL TRIALS: THE CASE OF THE HIV PREVENTION TRIALS
NETWORK 071 STUDY IN ZAMBIA**

**By
Mulanda Joseph Mulawa**

**‘A dissertation submitted in partial fulfilment of the requirements for the degree of Master of
Public Health - Health Promotion and Education with Implementation Research’**

The University of Zambia

Lusaka

2019

COPYRIGHT

All rights reserved. No part of this dissertation may be produced or transmitted in any manner without prior permission from the researcher or the University of Zambia

@2019, Mulanda Joseph Mulawa and the University of Zambia

DECLARATION

This dissertation is my original copy as Mulanda Joseph Mulawa

I declare that this dissertation; *The Role of Communication in Supporting Community Engagement in HIV Clinical Trials: The Case of The HIV Prevention Trials Network 071 Study in Zambia*, presented for the degree of Master of Public Health – Health Promotion and Education with Implementation Research has never been submitted for any degree examination at any other University. All the sources herein quoted have been acknowledged by complete references.

Signature:

Date:

Mulanda Joseph Mulawa
Candidate

APPROVAL

This dissertation of Mulanda Joseph Mulawa has been approved as fulfilling the requirements or partial fulfilment of the requirements for the award of Master of Public Health in Health Promotion and Education with Implementation Research by the University of Zambia'

Examiner 1:

Name:

Signature: **Date:**

Examiner 2:

Name:

Signature: **Date:**

Examiner 3:

Name:

Signature: **Date:**

Chairperson, Board of Examiners:

Name:

Signature: **Date:**

Supervisor:

Name:

Signature: **Date:**

ABSTRACT

Community based interventions and research are often affected by communication challenges. Community Engagement (CE) has thus become an integral part of the process of communication within public health interventions. However, the effectiveness of CE strategies depend on what information is communicated and how well it is communicated. The aim of the study therefore, was to explore the role of communication in CE processes in the HIV Prevention Trials Network (HPTN) 071 Population Effects of Antiretroviral Treatment to Reduce HIV Transmission (PopART) in Zambia.

This was a qualitative case study conducted in two purposively selected HPTN 071 PopART communities from Livingstone and Lusaka Districts. Thematic analysis was used to analyse data collected that was from focused group discussions, key informant interviews and document review.

HPTN 071 PopART employed both direct and representative CE. Direct engagement included the use of community meetings, door-to-door sensitisations, and facility based health talks while representative engagement used community Advisory Boards (CABs). Awareness creation strategies comprised of Video/film, IECs, drama, community meetings and the door-to-door community sensitisations. Study implementers and community members felt door-to-door was the best approach to use when introducing a program and when explaining complex issues within the study. However, it was established that IECs such as posters and flyers were not translated into local languages, posing a challenge to people who could not read English. Further, HPTN 071 PopART study did not have modes of communication for the visually and hearing impaired because none of the IEC materials were in brail format and none of the videos/film featured sign language interpreters.

Communication approaches in HPTN 071 PopART helped support community engagement and participation by reducing the myths and misconceptions that people had towards the study. Communication through various media channels helped create mutual understanding and trust between the study team and the community because the approaches used to communicate required direct contact with the HPTN 071 PopART study participants. However, there is need to cater for the information needs of all people, including people with disabilities because such people are usually left out in the implementation of various interventions.

Key Words: Information Education Communication (IEC), Communication, Community Engagement, HIV Randomised Control Trials

DEDICATION

I dedicate this dissertation to my family, who have consistently provided me with the much-needed support to undertake my studies. I am eternally grateful to them for the values and ideas I have come to cherish during my pursuit for academic excellence. I further dedicate this dissertation to my loving and caring wife – Gladys Kanyuka Sali who has always believed in me and encouraged me to work hard. This paper is also dedicated to my first born daughter, my little bundle of joy, Naleli Wandu Mulawa. You two are the pillar and source of inspiration in my life- I love you! Above all, I dedicate this dissertation to my late Mum and Dad, Mr and Mrs Mulawa. I wish you were here to see how much of a man your son has become. Just like you, I will always be a fighter - to never easily give up!

ACKNOWLEDGEMENTS

My successful pursuit for the Master of Public Health in Health Promotion and Education with Implementation Research could have never been possible without the support from the World Health Organisation (WHO) Special programme for Research and Training in Tropical Diseases (TDR). I wish to acknowledge the financial and technical support that TDR has rendered to me.

Sincere appreciation also goes to the TDR local team at the University of Zambia in Prof. Charles Michelo and Mrs. Choolwe Jacobs. To my mentors Dr. Oliver Mweemba and Principal Supervisor Dr. Joseph Mumba Zulu, I salute your hard work and continued mentorship you render unto me. You inspire me to aspire for academic excellence. I would also like to extend my gratitude to Dr. Halwindi Hikabasa my co-supervisor for the support offered unto me.

I further wish to acknowledge Zambart for allowing me to have my study nested in the just ended HPTN 071 Population Effects of Antiretroviral Treatment to Reduce HIV Transmission (PopART) study. Particularly from Zambart my gratitude goes to Dr. Musonda Simwinga for his unreservedly supervision throughout my Part II of my studies. I also acknowledge all Zambart staff in the communities from which I conducted my field work.

Further gratitude goes to my friends Peter Lungu, Tulani Matenga, Twambo Simanga and Nelson Phiri for the help during my study.

Finally, I would like to thank Jehovah God for his love and mercy over me, none of this would have been possible without his divine intervention!

TABLE OF CONTENTS

COPYRIGHT	i
DECLARATION	ii
APPROVAL	iii
ABSTRACT	iv
DEDICATION	v
ACKNOWLEDGEMENTS	vi
LIST OF TABLES	ix
LIST OF FIGURES	x
LIST OF APPENDICES	xi
ABBREVIATIONS AND ACRONYMS	xii
CHAPTER ONE: INTRODUCTION	1
1.1 Background.....	1
1.2 Statement of the Problem.....	2
1.3 Justification of the Study.....	3
1.4 Study Research Question.....	3
1.5 Study Objectives.....	3
1.5.1 General Objective.....	3
1.5.2 Specific Objectives.....	4
1.6 Organisation of Dissertation.....	4
CHAPTER TWO: LITERATURE REVIEW	5
2.1 Introduction.....	5
2.2 HIV Combination Prevention Approach and HPTN 071 Trial.....	5
2.3 Community Engagement in HPTN 071.....	6
2.4 Functions of Health Communication.....	7
2.5 Development of IEC in HIV Interventions.....	8
2.6 Community Engagement and HIV Prevention in Randomised Trials.....	9
CHAPTER THREE: METHODOLOGY	13
3.1 Introduction.....	13
3.2 Study Design.....	13
3.3 Study Setting.....	13
3.4 Study Population (Inclusion and Exclusion Criteria).....	14
3.5 Participant Selection.....	14
3.6 Data Collection.....	14
3.6.1 Focus Group Discussions (FGD).....	15
3.6.2 Key Informant Interviews (KII).....	15
3.6.3 Document Review.....	15

3.7 Data Entry and Analysis	16
3.8 Dissemination Plan	16
3.9 Data Quality and Consistency	17
3.10 Ethical Considerations	17
3.11 Study Strengths	17
3.12 Study limitations	18
CHAPTER FOUR: RESULTS	19
4.1 Introduction.....	19
4.2 Demographic Characteristics of Participants	19
4.3 Major Themes and Subthemes	20
4.4 Community and Stakeholder Engagement in HPTN 071 PopART	21
4.4.1 Formation of the CAB	22
4.4.2 The Purpose of the CAB	23
4.5 Appropriateness of Communication and IEC Materials Used in HPTN 071 PopART	24
4.5.1 Face-to-Face or Interpersonal Communication.....	24
4.5.2 IEC Materials	27
4.5.3 Challenges of IECs in HPTN 071 PopART	29
4.6 Effectiveness of Engagement and Awareness Creation in HPTN 071 PopART	30
4.6.1 Knowledge about HPTN 071 PopART.....	30
4.6.2 Myths and Misconceptions About PoART	31
4.6.3 Myths and Misconceptions about HIV Prevention and Treatment	34
4.7 Measures to Counter Myths and Misconceptions	37
4.8 Communication and Awareness Strategies in HPTN 071 PopART	39
4.9 Development of IEC Materials in HPTN 071 PopART.....	40
CHAPTER FIVE: DISCUSSION	43
CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS.....	48
6.1 Conclusion	48
6.2 Recommendations.....	49
REFERENCES	50
APPENDICES	57

LIST OF TABLES

Table 3. 1: Sampling and Data collection Methods Summary	16
Table 4. 1: A summary of the demographic characteristics of the participants.....	19
Table 4. 2: Themes and Sub-themes that emerged from the collected data.....	20
Table 4. 3: Summary of Communication Channels as recorded in the Community	
Engagement Standard Operation Procedure	39

LIST OF FIGURES

Figure 4. 1: Ddevelopment process of IEC materials in HPTN 071 PopART	42
--	----

LIST OF APPENDICES

Appendix 1: Participant Information Sheet	57
Appendix 2: Informed Consent Form	60
Appendix 3: Translated Participant Information Sheet - Tonga.....	61
Appendix 4: Translated Informed Consent Form - Tonga	64
Appendix 5: Translated Participant Information Sheet - Chinyanja.....	65
Appendix 6: Translated Informed Consent Form - Chinyanja	68
Appendix 7: Interview Guide for community Focus Group Discussion (Female and Male)	69
Appendix 8: Translated Interview Guide for community Focus Group Discussion- Tonga.	72
Appendix 9: Translated Interview Guide for community Focus Group Discussion – Chinyanja	75
Appendix 10: Interview Guide for community Focus Group Discussion with Community Advisory Board (CABs)	78
Appendix 11: FGD Guide for Intervention Field Staff.....	80
Appendix 12: Key Informant Interview Guide for District Intervention officer and Community Engagement Field Staff	83
Appendix 13: Key Informant Interview Guide for Head Office Staff.....	85
Appendix 14: Key Informant Interview Guide for Community Opinion Leaders	87

ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
AIDS	Acquired Immune Deficiency Syndrome
ART	Anti-Retroviral Therapy
CABs	Community Advisory Boards
CE	Community Engagement
CHiPs	Community HIV- care Providers
FGD	Focussed Group Discussion
HIV	Human Immunodeficiency Virus
HPTN	HIV Prevention Trials Network
KII	Key Informant Interviews
TDR	Tropical Disease Research
UNAIDS	United Nations Programme Agency on HIV/for AIDS
UTT	Universal Testing and Treatment
VMMC	Voluntary Medical Male Circumcision
WHO	World Health Organisation
ZAMSTAR	Zambia-South Africa TB and AIDS Reduction Program
ZDHS	Zambia Demographic Health Survey

CHAPTER ONE: INTRODUCTION

1.1 Background

In the early 1980s, a new syndrome, the Acquired Immune Deficiency Syndrome (AIDS) was discovered in the United States of America (UNAIDS, 2003). By the mid-1980s, it became clear that the virus had spread, largely unnoticed, throughout most parts of the world infecting and affecting millions of people (UNAIDS, 2003). The UNAIDS 2003 report shows that over 40 million people globally were living with HIV/AIDS in 2001. In 2015, this number reduced to about 36.7 million (UNAIDS, 2017) and most came from Sub-Saharan Africa with 25.6 million people living with HIV (UNAIDS, 2017). In Zambia, estimates indicate that there has been a reduction in the prevalence of HIV with an adult prevalence estimated at 14.3 percent in 2007, 13.3 percent in 2013 and 2014, and 12.6 percent in 2016 (CSO, 2009; CSO, 2014; National HIV/AIDS/STI/TB Council, 2015; UNAIDS, 2017). Despite this progress, HIV/AIDS is still considered a major public health problem throughout the world and particularly in developing countries (UNAIDS, 2017).

Various preventive strategies around the world aimed at reducing the spread of the HIV virus have undergone a major shift from separate models for prevention and treatment to the current focus on combination prevention strategies. These strategies not only address biomedical levels but also target behavioural and social or structural levels of human interaction (Fong, 2013). One such intervention is the HIV Prevention Trials Network (HPTN) 071 Population Effects of Antiretroviral Treatment to Reduce HIV Transmission (PopART). HPTN 071 PopART was a three Arm cluster-randomised trial designed to determine if a community-wide combination HIV prevention package plus immediate Antiretroviral Therapy (ART) initiation could reduce HIV incidence (Hayes *et al.*, 2015). The study was implemented in 21 large urban communities in sub-Saharan Africa which were catchment areas of government health facilities, 12 in four Zambian provinces and nine in Western Cape, South Africa (Hayes *et al.*, 2015, Hayes *et al.*, 2014; Bond, 2016). The 21 communities were randomised to three study arms (A, B and C) with arms A and B being the intervention arms and C the control arm (Hayes *et al.*, 2015). The difference between arms A and B was that in A, clients who tested positive were commenced on ART immediately while in arm B, they were commenced on ART in accordance to government guidelines (Hayes *et al.*, 2015). However, arms A and B were merged in the final year when the government of Zambia adopted the test and treat.

Communication and community engagement are important in the implementation of such large public health interventions. Literature has shown that poor communication and community engagement can have a negative impact on the implementation of public health interventions (Manderson *et al.*, 2009; Allotey *et al.*, 2008; Bardosh, 2014; Atkinson *et al.*, 2011). Engaging communities in public health interventions is however, not an easy task. This is because community engagement processes are affected by various factors such as poor interaction between researchers and the community, socio-economic status of the community, cultural beliefs and misbeliefs that people have over an intervention being implemented (Newman *et al.*, 2015; Ellen *et al.*, 2015). Other factors include mistrust that people have over researchers, language barriers or failure by community members to understand scientific language (Newman *et al.*, 2015). As such, communication strategies that include clear messages and easy modes of communication can help researchers to provide appropriate information and education regarding myths and misconceptions and builds trust.

Health communication can therefore play a significant role in community engagement processes. However, some program implementers often overlook the complexity of communication. *Pick et al.* (2014) notes that communication is not as simple as it seems, that it is more than just the sending and receiving of messages. Communication is the process of creating shared understanding between the sender and the receiver, and this demands specific advanced communication skills, combined with an enhanced awareness of oneself as a researcher and others (*Pick et al.*, 2014). According to Barker (2006), presenting information in a way that can easily be understood by the other person is vital to creating shared understanding. Communication is most effective when information is simplified and shared ideas are expressed clearly (*Pick et al.*, 2014).

This research is therefore, aimed at understanding the role that communication plays in supporting community engagement in HIV prevention clinical trials, with a specific focus on the just ended cluster randomised HPTN 071 PopART study by Zambart in Zambia's Lusaka and Livingstone districts.

1.2 Statement of the Problem

The HPTN 071 PopART faced communication and community engagement challenges just like any other randomised trial dealing with the community. Among these included low linkage to care after someone tested HIV positive within 3 months, difficulties in motivating communities in the control arms to stay in the study as some felt left out and did not know what

was happening with regards the study (Simwinga *et al.*, 2016). Further, there was a low uptake of the study intervention by men in year 1, where a greater proportion of Zambian men were recorded as not contacted (15 percent) than women (4 percent). In addition, rumours related to blood drawn from research participants circulated in HPTN 071 PopART communities with concerns that the blood was been used for satanic rituals (Simwinga *et al.*, 2016). Such challenges might have been in part due to inadequate communication and inappropriate community engagement strategies. Therefore, it became imperative to explore the role that communication can play to improve community engagement in HPTN 071 PopART.

1.3 Justification of the Study

Poor and inadequate communication had negative impact on the community engagement processes and hindered the successful implementation of the HPTN 071 PopART study. It was therefore imperative that a study to understand the role that communication played in influencing community engagement in the HPTN 071 PopART study be undertaken, as it was an essential tool in informing strategies for improved community engagement in the study. The recommendations derived from the study informed HPTN 071 PopART program implementers what study participants (community members) and program frontline staff thought about the community engagement processes and communication used in the study and provided best possible ways of improving the study and other future studies yet to be conducted by Zambart. This research was also used as part of the evaluation process of the HPTN 071 PopART study.

1.4 Study Research Question

What is the role of communication in supporting community engagement in HPTN 071 PopART?

1.5 Study Objectives

1.5.1 General Objective

To explore the role of communication in supporting community engagement processes in the Population Effects of Antiretroviral Treatment to Reduce HIV Transmission (HPTN 071 PopART).

1.5.2 Specific Objectives

- i. To identify the community engagement strategies used in HPTN 071 PopART.
- ii. To explore perceptions of community members and programme implementers on Information Education and Communication (IEC) materials and Communication Strategies used in HPTN 071 PopART.
- iii. To document the development process of Information Education and Communication (IEC) materials and Communication Strategies in HPTN 071 PopART.

1.5 Organisation of Dissertation

This dissertation is organised into six chapters. Chapter one introduces the study topic, aims and rationale. Chapter two follows with an in-depth analysis of literature on issues around communication and community engagement in randomised trials. This chapter is followed by the methodology section, which contains among others the study design, data collection and analysis techniques. The results are presented in chapter four and these results are discussed in chapter five. Chapter six follows with the conclusion and recommendations.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter presents the literature relating to health communication and the process of community engagement in the HIV/AIDS combination prevention programs and research studies. The chapter seeks to bring together the many relevant disciplinary and technical perspectives to identify gaps in knowledge and create comprehensive solutions with regards the study topic.

2.2 HIV Combination Prevention Approach and HPTN 071 Trial

Since the principles of HIV combination prevention were formulated, there has been new interest in the potential impact of universal testing and treatment (UTT) interventions. This concept represents a paradigm shift in HIV prevention, since it focuses on identifying and intervening in HIV-infected individuals to reduce transmission to the much larger uninfected population. Mathematical modelling has indicated that if a high proportion of the population can be tested, with those found to be HIV-infected offered immediate ART, HIV infection could be reduced substantially within two years. This could potentially eliminate HIV as a public health problem in the longer term (Bond, 2016; Dodd and Garnett, 2010; Velasco-Hernandez *et al.*, 2002). In addition, the 2013 WHO ARV guidelines recommended initiating ART for all adults with HIV and a CD4 count at or below 500 cells/mm³, regardless of WHO clinical stage, giving priority to those with severe or advanced HIV disease (WHO clinical stage 3 or 4) or a CD4 cell count at or below 350 cells/mm³ (WHO, 2014). Further, the WHO 2016 Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection state that ART should be initiated in all adults living with HIV regardless of WHO clinical stage and at any CD4 cell count as a way of reducing the spread of the virus. It is believed that if a person's viral load is very low or undetectable, the chances of passing on the virus to uninfected persons is reduced.

The HPTN 071 PopART trial was a cluster randomised trial designed to determine if a community-wide combination HIV prevention approach in 21 urban communities in sub-Saharan Africa can reduce HIV incidence. The 21 communities were randomised into intervention and control arms as earlier explained in *Chapter One*. The prevention package included among others universal voluntary HIV testing and counselling; provision of condoms, sexually Transmitted Infections (STI) treatment, offer of Voluntary Medical Male Circumcision (VMMC) to men who are HIV uninfected, referral to Prevention of Mother to

Child Transmission (PMTCT) services, and the offer of immediate ART for all those identified as HIV-infected (Hayes *et al.*, 2015, Hayes *et al.*, 2014). A full package of arms A, B and C are provided below as explained by Vermund and colleagues (2013):

Arm A: Offered voluntary HIV counselling and testing annually to every household (i.e., home-based testing and couples counselling) with expanded HIV testing in health facilities, linking those with HIV infection to care at the local health facility and offered immediate ART to all HIV-infected persons regardless of CD4+ cell count or viral load. Arm A also had initiating ART for those HIV-infected persons already in care, promoting voluntary medical male circumcision (VMMC) for men who test HIV seronegative, promoting prevention of mother-to-child HIV transmission (PMTCT) services to HIV-infected pregnant women, improving the diagnosis and treatment of STI and providing risk reduction education and condoms in the community and in the health facilities

Arm B: Had all of the HIV prevention strategies in the HPTN 071 PopART combination prevention program, except that at first ART was not universal, but was offered to those eligible according to prevailing national guidelines, typically at a threshold of ≤ 350 CD4+ cells/ μ L. However, in the final year, Arms B and C also received immediate ART.

Arm C: This was the control of the study, and received the current standard of care plus immediate or universal ART. Diagrams 1 and 2 below summarise the HPTN 071 PopART Study before and after the Implementation of the WHO ART initiation guideline.

The HPTN 071 PopART study was being funded by the National Institute of Allergy and Infectious Diseases, National Institute of Mental Health, Office of the United States Global AIDS Coordinator, Bill and Melinda Gates Foundation, and the U.S. National Institutes of Health.

2.3 Community Engagement in HPTN 071

According to the Hayes *et al.* (2015), the study builds on the community engagement and community capacity established during the Zambia-South Africa TB and AIDS Reduction study (ZAMSTAR) trial. ZAMSTAR was a community based randomised trial conducted in Zambia and the Western Cape province of South Africa. According to Ayles and co-workers (2013), ZAMSTAR had two interventions, community level enhanced tuberculosis case-finding and household counselling, which were implemented between August 2006 and July 2009 (Ayles *et al.*, 2013). In the HPTN 071 PopART study, various community groups such

as CABs (including CABs in the former ZAMSTAR trial), civil society organizations and government authorities were consulted for their input before the final proposal was submitted, and again after the grant was awarded. Community Advisory Boards (CABs), whose selection criteria in the ZAMSTAR study was arrived at through consultation with the stakeholders, had broad representation from various community groups and stakeholders such as churches, schools, law enforcement, government structures at community level, health-related committees, and development-related committees.

2.4 Functions of Health Communication

It has generally been agreed that communication plays a critical role in behaviour change of an individual (UNICEF, 2008). Strategies integrated into a community, based on personal contact and delivered through culturally appropriate media are said to be effective communication. Various scholars have defined the term communication differently. For example, Ruben (1984) says communication is any information related behaviour while McQuail (2010) defines communication as a symbolic process where reality is produced, maintained, repaired and transformed. Today, communication is divided into five categories: Intrapersonal to mean communication within oneself; interpersonal communication to mean exchange of ideas between two people; organisational communication takes place within or among organisations; community/group communication which is among or between communities or groups and public/mass communication which is communication to a large audience aided by technology, (Corcoran, 2007). For this study, the type of communication referred to was interpersonal and community/group communication (Corcoran, 2007).

Communication is an integral part of interventions that seek to address individual, community, social and political factors. Tomori *et al.* (2014) and Storey *et al.* (2014) show that health communication has a significant impact at multiple levels of implementation in each step of the HIV continuum of care. Health communication can motivate people to be tested and obtain their results, promote access to treatment, link people living with HIV to medical and psychosocial care, support continued retention in care, and help reduce stigma that may prevent individuals from taking these actions (Tomori *et al.*, 2014).

A review by Storey *et al.* (2014) describes four main functions of communication; information, persuasion, social connection, and social structure. He notes that of the said functions, some may be more relevant at some stages of the HIV prevention continuum than others. Storey *et al.* (2014) states that information and persuasion, tend to be more relevant when new ideas or

information are being introduced. Social connection and social structural functions of communication however, tend to be more important when behaviours need to be reinforced or when people need the support of others to practice healthy behaviours successfully (Storey *et al.*, 2014). For instance on persuasion, long-term adherence to treatment requires constant patient education, encouragement, and reinforcement by providers, peers, and partners (Storey *et al.*, 2014). Communication is effective only if the information is sent using an appropriate media or channel. Storey *et al.* (2014) argues that health communication interventions are more likely to succeed when they use multiple coordinated communication elements to reach people with consistent high-quality messages through a variety of channels such as media, peer networks, and provider contact.

It is evident that communication is at the centre of community engagement processes and therefore, poor communication results in poor community engagement and participation, affecting the implementation of a study or program. This article informs us that information is not a one-time factor in health interventions, but a constant aspect that engages the community and stakeholders at various levels, encourages good health behaviours and reinforces and maintains newly adopted behaviours in individuals.

2.5 Development of IEC in HIV Interventions

A cross sectional survey conducted by Cherie (2005) maintains that if IEC materials on HIV/AIDS are perceived useful and people accept the information, they will be motivated to take action, adopt the action and change their behaviour. This survey was conducted from November 2001 to April 2002 in randomly selected high schools in Addis Ababa, Ethiopia. The objective was to assess the perceived sufficiency and usefulness of HIV/AIDS IEC messages and materials as well as to identify students' preferences. Interesting thing to note from this study is that people accept certain information when their needs, interests, wants, concerns, opinions, attitudes and beliefs, the values they hold, their psychological sets and the assumptions that govern their health behaviours are considered in designing IEC materials (Cherie, 2005).

Community engagement and participation in designing IEC materials is very important because it helps IEC developers and program planners design effective messages that can easily be accepted and understood by the target population. Apart from designing intervention messages, it is also important to strategically select who will deliver the messages. The source of the message becomes key in disseminating certain information to the community. Megan

(2010) explains that familiarity of the source often affects the way information is communicated. Cherie (2005) adds that attention needs to be given to the information sources and channel preferences of the audience. A study by Aries (2007) found that the source of information is key to effective communication. These studies conclude that Communicators are more likely to be persuasive if they disseminate information that the community can easily relate with. For example, Information is more reliable if the source is credible and the message is understandable, appropriate, timely, practically applicable, accessible and in line with the expectation and interest of the target audiences (Aries, 2007).

2.6 Community Engagement and HIV Prevention in Randomised Trials

Community engagement and participation have played a pivotal role in successful communicable disease control as well as elimination campaigns in many countries. Atkinson et al, (2011) notes that community engagement was key in the Taiwan Malaria elimination in the 1960s, the elimination of Schistosomiasis in Guangxi Province - China and also the 2002 elimination of Onchocerciasis in 11 West African Countries.

A study by Simwinda et al. (2016) that attempted to describe some of the lessons learnt from implementing community engagement approaches in the HPTN 071 PopART study prior to and during the first year of intervention implementation showed some of the intricacies involved in community engagement. Community engagement processes require that the targeted communities are involved from the start of the project, that is, from protocol development to implementation of the research or project and ultimately the dissemination of research findings. The HPTN 071 PopART in this case involved the community from the start of the project with various Community Based Advisory Boards (CABs), Civil Society Organisations (CSOs), Non-Governmental Organisations (NGOs) and also government authorities (Simwinda et al., 2016).

In this study, it was discovered that there was low linkage to care after someone had tested HIV positive within 3 months. The CABs working with intervention field staff suggested strategies for improving linkage to care. They suggested messages that intervention field staff could use during HIV counselling and testing and these were later incorporated into the message sheet for the second intervention year (Simwinda et al., 2016). This shows how important it is to incorporate the community and support staff in the development of IEC materials. Further challenges highlighted by the authors included among others difficulties in motivating communities in the control arms to stay in the study as some felt left out and did not know what

was happening with regards the study. It was also revealed that the HPTN 071 PopART study had a low uptake of the study intervention by men in year 1, where a greater proportion of Zambian men were recorded as not contacted (15 percent) than women (4 percent). It was also reported that rumours related to blood drawn from research participants affected community engagement and participation (Simwinda *et al.*, 2016). However, field staff provided corrective messages during household visits to deal with the rumours and specific strategies targeting men were implemented to improve male involvement in the study.

It is evident that communication is very important in controlled randomised trials. This is because effective communication can help avoid most of the challenges highlighted by Simwinda *et al.* (2016). Effective communication will help dispel myths and rumours that people may have about the randomised trial. This in turn nurtures some form of trust between the researchers and the targeted communities, making it very easy to engage them (communities) in the study and ultimately participate in the study. This article is important because it highlights some challenges that were faced in the main study in which this research was nested. It provides baseline information for the researcher to understand the engagement strategies and some of the challenges that were faced.

Other than engagement at community level, an embedded, multiple case study by Newman *et al.* (2015) presents a different level of engagement - stakeholder engagement in biomedical trials. This study was conducted in four countries; Thailand, India, South Africa and Canada covering a period from 2008 to 2012. Newman *et al.* (2015) explored and identified challenges and facilitators for community stakeholder engagement in biomedical HIV prevention trials in diverse global settings. One observation from this study that is consistent with results obtained by Ellen *et al.* (2010) is that the history of a setting affects the extent of community engagement. Newman *et al.* (2015) further notes that communication challenges and trial-related misconceptions were observed and that respondents in the study reported challenges and complexities in communicating important scientific concepts to community stakeholders. Challenges were attributed in part to completely different vernacular vocabularies across multiple languages, low educational attainment among many key populations, belief in traditional healers and lack of experience with research (Newman *et al.*, 2015). Misunderstandings about the nature of clinical trials, placebo controls, randomisation and conflation of HIV prevention trials with prevention programs were also some of the factors identified that affected community stakeholder engagement in prevention trials (Newman *et*

al., 2015). Respondents across case studies highlighted the importance of engaging community stakeholders early in the trial planning processes.

Community engagement processes involving key stakeholders like traditional and opinion leaders can provide a platform for dialogue, interaction and partnership building with the community representatives and members themselves, similar to what Bracht and Tsouros (1990) explain. Cornwall *et al.* (2000) and Murry and Brody (2004) add to this by stating that engagement of key community stakeholders can strengthen community participation through dissemination of information on goals, risks and benefits of a study.

Results of this study were presented according to three main themes and seven sub-themes that were reported across all the study settings. However, the issue of generalisation of findings to other parts of the world becomes problematic. Even if the authors tried to develop categories that could cross cut into all study settings, it is the view of this author that each country results should have been analysed differently and presented as different case studies. This is because the study countries all had different cultural beliefs, environmental needs and social contexts. Therefore, an analysis and comparison on how community stakeholder engagement differs in these countries would have been the best mode of analysing and discussing the data presented.

Further, a review on community engagement and investment in Biomedical HIV prevention research for Youth by Ellen *et al.* (2010) illustrates the importance of community engagement in clinical trials and one of them is that history in research dealing with communities has created and reinforced mistrust between researchers and communities. Because of this, people are unwilling to take part in trials. They further argue that because of such mistrust, it becomes particularly difficult in research to reach or target the most vulnerable in society, as communities tend to protect such individuals. Ellen *et al.* (2010) also indicates that community engagement can help researchers prioritise approaches that have a greater probability of acceptance and use by community members and such will increase participation by community members in the trial.

With reference to the HPTN 071 PopART study, one thing that can be taken from this article is that combination prevention interventions should be adapted to local situations and implemented on a scale that can make an impact in the community. It is also important to note that different engagement strategies can be used for different people in society. For example, all societies are heterogeneous, thus communication strategies used for different age groups should be different, the approach of engaging participants and stakeholders should also be

different. In terms of communication, Ellen *et al.* (2010) indicate that various modes of communications can be used in community trials to enhance community engagement and participation such as existing community structures, social gatherings, public forums, mass media, internet, and cell phones.

A systematic review by Nakibinge *et al.* (2009) - “Community engagement in health research: two decades of experience from a research project on HIV in rural Uganda,” describes how a research project on HIV epidemiology in rural Uganda engaged the community between 1989-2009, describing activities, opportunities and challenges that had arisen during that time. Nakibinge *et al.* (2009) report on experience of community engagement in a research project on HIV in Africa, identifying the challenges and opportunities arising from long-term interaction between researchers and the community. This paper reviewed Medical Research Centre (MRC) and Uganda Research Institute (URI) documents and peer-reviewed publications and drew on the experience of the authors as investigators involved in the project at various times since inception in 1989.

One striking revelation they made which are similar to those by Lavery *et al.* (2007) are that political and religious affiliation of field staff is a potential source of community disruption, and staff with a different affiliation from that of the study participants may be rejected. This can affect the community engagement process. Nakibinge *et al.* (2009) however, notes that constant community engagement at the beginning of the project, during the project and even after the project is very important. To avoid some of the challenges that come about in the engagement process, Nakibinge *et al.* (2009), proposes that a forum through which community members can voice out their dissatisfactions, complaints, criticisms and appreciations of a project should be established. This may further help in dealing with the community’s tendency to suffer from participation fatigue, necessitating counter measures to maintain interest and coverage rates through the study participants (Nakibinge *et al.*, 2009).

This study is relevant to assessing the role that communication plays in supporting community engagement in HIV trials because effective communication enables the exchange of information between study participants and programme implementers. The study by Nakibinge *et al.* (2009) clearly identifies the need for a two-way flow of information, not only researchers disseminating information to participants but also study participants taking part and giving feedback on the communication process.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter describes the research design and methodology used in the study. It highlights the research design used, followed by a description of the study setting. The chapter also describes the data collection and analysis techniques used to collect and analyse data to understand the role that communication plays to support community engagement in HPTN 071 PopART respectively.

3.2 Study Design

This study used a qualitative case study approach as proposed by Crosswell (2007) as it enabled the researcher to explore and describe the state of affairs on the ground through direct interaction with the participants and frontline staff in the HPTN 071 PopART study. This method allowed the respondents to express themselves freely without any restriction.

3.3 Study Setting

The main HPTN 071 PopART study had a total of 21 study communities of which 12 were in Zambia and nine in South Africa. Hayes *et al.* (2015) defines a cluster or community in this study as the catchment population of a local health unit (through which the intervention is delivered), and corresponds to a total population of between about 20,000 and 150,000 individuals (average size of approximately 55,000). In Zambia, the study was implemented in the communities identified below and were spread across four provinces and six districts (Hayes *et al.*, 2015).

- Chimwemwe and Ndeke in Kitwe District (Copperbelt Province)
- Chipulukusu and Chifubu in Ndola District (Copperbelt Province)
- Makululu and Ngungu in Kabwe District (Central Province)
- Chawama, Chipata and Kanyama in Lusaka District (Lusaka Province)
- Maramba and Dambwa in Livingstone District (Southern Province)
- Shampande in Choma District (Southern Province)

This study was conducted in **Livingstone's community A and Lusaka's community B**. The identities of the two communities remained unidentified for ethical reasons. The two communities were purposively selected because they are in different environments. They required different approaches in engaging communities in the HPTN 071 PopART study. Further, the study had different uptake of the intervention in the two areas, with Lusaka

province having a higher uptake of the intervention as compared to Southern province. Populations of the two communities were also different, with that of community B larger than that of community A. Therefore, in order to undertake a large study like HPTN 071 PopART, the way one engage the two communities would be different. Thus, the two different environments would offer rich information regarding the study topic.

3.4 Study Population (Inclusion and Exclusion Criteria)

Residents of the study area were eligible to take part in this study if they were at least 18 years and above. Community members were also eligible to take part in the study if they had been residents of the selected areas from the time HPTN 071 PopART started. Community members who were residents of the selected areas and had been visited by Community HIV Care Providers (CHiPs) but lived in another community when HPTN 071 PopART started were excluded. HPTN 071 PopART intervention field staff were also eligible to take part in the study.

3.5 Participant Selection

Purposive sampling was used to select participants of the study. This allowed the researcher select information rich participants who had information that helped in providing answers to the study objectives. Information sought in the study was used to understand the role of communication in supporting community engagement in the HPTN 071 PopART study.

3.6 Data Collection

The study employed both primary and secondary data collection techniques. According to Ajayi (2017), primary data is one which is collected for the first time by the researcher while secondary data is data that is already collected or produced by others. Data was collected using key informant interviews (n=13) with HPTN 071 PopART staff and stakeholders based on the available organisation positions. Further, FGDs (n=12) were conducted to collect data from HPTN 071 PopART study participants and other HPTN 071 PopART frontline staff. Interview and FGD guides were used to guide the interviews and discussions. A document review of study documents, reports and standard operation procedures used in HPTN 071 PopART was also done.

3.6.1 Focus Group Discussions (FGD)

A total of 12 FGDs, eight with HPTN 071 PopART study participants (community members), two with Community Advisory Board members and two with intervention field staff were conducted. The FGDs with study participants sought to understand their perceptions with regards to communication and community engagement strategies used in HPTN 071 PopART. Of the eight FGDs, four were from community A and the other four from community B. The FGD participants were grouped according to age and sex – age groups between 18 – 35 years and above 35 years. The participants were segmented according to age and sex as suggested by Eastman and Ferguson (2013), that all audiences or populations are different, what would attract one would repel another. Eastman and Ferguson (2013) further notes that programmers should apply knowledge of demographics in audience composition, especially in terms of age and sex. Each FGD had a between eight to 12 participants.

3.6.2 Key Informant Interviews (KII)

To understand the engagement process and some of the activities used for community mobilisation and education, KIIs were conducted with the following;

- Two community engagement staff at Zambart head office in Lusaka
- One communication staff at Zambart head office in Lusaka
- Two District Intervention Officers, one from community A and another from community B
- Two community engagement field staffs and
- Six community opinion leaders or stakeholders purposively selected with the help of the neighbourhood health committee; three from each study site.

A summary of the sample size and data collection techniques is presented in *table 3.1* on page 16.

3.6.3 Document Review

To appreciate and interrogate the communication and community engagement strategies used in the HPTN 071 PopART study, the researcher conducted a document analysis, which was the main secondary data collection approach. This included a review of different documents such as community engagement reports, community engagement progress and field reports, standard guidelines and tools such as Standard Operation Procedures (SOP) and Manual Operations Procedures (MOP) which were all acquired from Zambart head office in Lusaka.

Table 3. 1: Sampling and Data collection Methods Summary

Method	Sample Size	Participant	Details
FGDs	12	Community Members	4 FGDs in community A, 2 for females (1 between ages 18-35 and another above 35 years) and 2 for males (1 between ages 18-35 and another above 35 years)
			4 FGDs in Community B, 2 for females (1 between ages 18-35 and another above 35 years) and 2 for males (1 between ages 18-35 and another above 35 years)
		Community Advisory Board members	2 FGDs, 1 from each study community
		Intervention Field Staffs	2 FGDs, 1 from each study community
KIIS	13	Community Engagement Staff	2 at Head Office
		Communications Manager	1 at Head Office
		District Intervention Field Staff	2 KIIs, one from community A and another from Community B
		Community Engagement field Staff	2 KIIs, one from community A and another from Community B
		Community Opinion leaders	6 KIIs, three from community A and another three from Community B

3.7 Data Entry and Analysis

The data generated from interviews and FGDs was recorded using a digital recorder. The recorded audio files were transcribed before directly downloading the transcriptions into Atlas.ti version 8 computer software for coding and analysis. By using both inductive and deductive reasoning, thematic analysis was employed to develop emerging themes from the data. The themes were then categorised into the broader ideas, which reflected the major findings for each objective.

3.8 Dissemination Plan

As part of the Tropical Disease Research (TDR) scholarship requirement, findings of the study were submitted for publication in a peer-reviewed journal and a copy of the dissertation was made available to the University of Zambia, School of Public Health library. The study findings were also disseminated to Zambart, the institution that implemented the HPTN 071 PopART study through a dissemination meeting.

3.9 Data Quality and Consistency

In order to ensure data quality and consistency, this researcher ensured that all the data collection tools were pilot tested before use in the field. To ensure that the data collected was accurate, all members recruited to be research assistants were trained and there were regular reviews of the different data collection tools to ensure that data collection was done in an appropriate manner.

3.10 Ethical Considerations

Ethical approval was obtained from the University of Zambia Biomedical Research Ethics Committee (UNZABREC). Further permission was granted by the implementing institution (Zambart) and the National Health Research Authority under the Ministry of Health.

During the study, some ethical issues were encountered such as discomfort during interviews, stress, and refusal to be recorded and at times some participants refused to continue with the interview even after agreeing to take part in the study. Therefore, the researcher ensured that before the interviews, written informed consent was obtained from the participants and anonymity was guaranteed to ensure smooth and detailed interviews. The other ethical issue that the researcher encountered was that some participants voluntarily disclosed their HIV status when none of the questions on the interview guides required them to do so. Thus, the researcher ensured maximum confidentiality on the participants' status by not revealing their names and identities, nor did the researcher report on the HIV status of participants. The data was cleared of any information that may have exposed the identity of the participant.

3.11 Study Strengths

This was a qualitative case study that had two study sites as cases which facilitated for the collection of rich and detailed data regarding communication and community engagement. This study has reaffirmed that communication and community engagement are context specific. It has demonstrated that community involvement in designing and implementing communication materials and strategies strengthens community participation in such studies. Another advantage that this study has is that it sampled community members, program frontline/field staff and Head office staff to enable triangulation of the information collected. It enabled the researcher gain a deeper understanding of how communication influenced community engagement and how the various community engagement strategies affected implementation

of the study. Furthermore, the qualitative team was composed of a student and three supervisors with vast experience in conducting similar qualitative work, including programme evaluations.

3.12 Study limitations

The major limitation of the study was time constraint as it was conducted at a time when the HPTN 071 PopART study intervention was ending. More field observations would have given this study even richer information. Despite this, the collected data was able to highlight the major issues regarding communication and community engagement in HPTN 071 PopART by using both primary and secondary sources of data to objectively answer the research objectives.

CHAPTER FOUR: RESULTS

4.1 Introduction

This section is structured to present results according to the general and specific objectives of the study. The presentation of findings is organised as follows: demographics of the study participants; description of the community engagement strategies used in HPTN 071 PopART; perceptions of community members and programme implementers on IEC materials and communication strategies used in HPTN 071 PopART; myths and misconceptions on HPTN 071 PopART and HIV transmission and treatment; and lastly the development process of IEC materials and communication strategies in HPTN 071 PopART.

4.2 Demographic Characteristics of Participants

The study had a total of 12 FGDs and 13 KII comprising of a combined 120 participants as can be seen in *table 4.1*. The youngest participant in the study was 18 years old while the oldest was 69 years. The average age of the participants across all the two study sites was 33 years. The male participants in the study were 67, representing 55.8 percent while the females were 53, accounting for percent of the total participants in the study.

Table 4. 1: A summary of the demographic characteristics of the participants.

Category	Number	Site	Number of Participants	Sex	Age Range
FGD	6	Livingstone	50	M= 27 F= 23	18 - 67
FGD	6	Lusaka	57	M= 29 F= 28	18 - 69
KII	13	Livingstone & Lusaka	13	M= 11 F= 2	31 - 52
TOTAL	FGD = 12 KII = 13		120	M= 67 F= 53	18 - 69

4.3 Major Themes and Subthemes

Table 4.2 presents some of the major themes, sub-themes and codes that were generated from the FDGs, KIIs and document review.

Table 4. 2: Themes and Sub-themes that emerged from the collected data

Major themes	Sub- themes	Codes
Community Engagement in HPTN 071 PopART	Types of Community Engagement Common CE – CABs	<ul style="list-style-type: none"> • Representative CE • Direct CE
	Formation of CABs	<ul style="list-style-type: none"> • Roles of CAB • Selection of CAB members
Appropriateness of Communication and IEC Materials Used in HPTN 071 PopART	Face to Face (Door to Door)	<ul style="list-style-type: none"> • Quick feedback • Correction of messages • Creates friendship/trust • Suitable for adults
	IEC Materials	<ul style="list-style-type: none"> • Suitable for people who can read English • Used as reference points • Used to reinforce messages by CHiPs • Makes CHiPs work easier • Non availability of printed material
Myths and Misconceptions of community on HPTN 071 PopART	Religious Beliefs	<ul style="list-style-type: none"> • Blood used for satanic rituals • Testing of HIV means selling ones soul
	Financial Gain	<ul style="list-style-type: none"> • Zambart makes money through selling blood from participants
	Service Related Factors	<ul style="list-style-type: none"> • All CHiPs are HIV Positive • Lack of privacy • Fear of stigma • Test Kits transmit HIV
Myths and Misconceptions of community on HIV prevention and treatment	Religious Practices	<ul style="list-style-type: none"> • Prayer cures HIV • Traditional Healers cure HIV
	Social and Cultural Practices	<ul style="list-style-type: none"> • Snuff (Sunko) prevents HIV transmission • Sexual intercourse cures HIV • Use of Alcohol prevents HIV transmission • Use of Vaseline prevents HIV transmission
Development of IEC and Communication Materials	Development process	<ul style="list-style-type: none"> • Communication Team Composition • Problem Identification/Analysis • Message development and Communication Channel selection • Message pre-test and correction • Message Dissemination and Feedback

4.4 Community and Stakeholder Engagement in HPTN 071 PopART

Community and stakeholder engagement was considered critical to the successful implementation of the HPTN 071 PopART study. Therefore, various community and stakeholder engagement strategies were developed to engage different people from the various HPTN 071 PopART communities. Since HPTN 071 PopART dealt with HIV, a special body called the Community Partners Platform (CPP) was created to engage people living with HIV/AIDS. This HPTN 071 PopART representative body was aimed at protecting and giving a voice to people living with HIV in the various study sites. The CPP comprised of different non-governmental organisations dealing with HIV, advocacy, HIV treatment and literacy. It was formalised in Zambia by having Terms of Reference (TORs) and a budget. This body further monitored some of the activities conducted by HPTN 071 PopART through field visits. The CPP advised the study implementers on various issues such as suggesting best engagement and mobilisation approaches for people living with HIV.

“... and the main role for the Community Partners Platform is to act as the voice for the people living with HIV on the study. As you know, HPTN 071 PopART itself has mainly to do with HIV and TB. So the Community Partners Platform is sort of an advisory body or a partnership that we have created with civil society organisations of people living with HIV.” KII-11_HPTN 071 PopART-Staff

Apart from the CPP, HPTN 071 PopART also had various community engagement and mobilisation activities to ensure community participation and involvement in the study. Other specific activities included the use of churches as a platform to disseminate HPTN 071 PopART information and offer various services such as HIV counselling and testing, and TB screening. Other engagement activities included the use of schools targeting learners, community youth friendly corners, community meetings, popular theatre such as drama, stakeholder meetings and health talks at health facilities in the study areas.

It was further established that the most common approach to community engagement in the HPTN 071 PopART study was the use of the Community Advisory Board (CAB). The CAB was the formal HPTN 071 PopART representative body at community site level.

4.4.1 Formation of the CAB

CABs in the HPTN 071 PopART study had a wide representation from various community groups such as the Neighbourhood Health Committee (NHC), community health workers; and stakeholders such as churches, schools, law enforcement, government structures at community level, and development-related committees. Worth noting here is that the HPTN 071 PopART study engagement approach was built on the community engagement and community capacity established during the ZAMSTAR trial in which communities were constantly engaged for seven years by Zambart. Working within a community successfully requires a trusting relationship and this relationship requires time to build. Thus, through the experiences from the ZAMSTAR trial, HPTN 071 PopART study implementers were able to develop community engagement and mobilisation approaches that were informed by the ZAMSTAR trial experience. For example, some of the CAB members in HPTN 071 PopART were also CAB members in the ZAMSTAR trial, making it easy for such people to undertake their CAB duties diligently.

Each study site in the HPTN 071 PopART study had at least between 10 to 15 people as CAB members. In order to facilitate inter-CAB communication and collaboration, a National Community Advisory Board (NCAB) was constituted. The selection and recruitment of CAB members followed three approaches set out by the HPTN 071 PopART study. The selection approaches required that people selected to be CABs were individuals who were opinion leaders or makers in their respective communities. They needed to be literate, able to read and write basic English. A person above 18 years, able to interact with other people and had good interpersonal communication skills qualified to be a CAB member. Other qualifications included availability and commitment to the study, good knowledge about HIV/AIDS and prevention methods as well as experience in HIV prevention methods.

In terms of the recruitment approaches, CAB members were recruited through adverts and interviews. Positions for representatives for the male youths, ART adherence supporters, TB treatment supporters were advertised with successful applicants interviewed by a panel consisting of the HPTN 071 PopART staff, NHC and a stakeholder. The other approach used to recruit CAB members was through nominations and interviews. This approach ensured that lay people considered as opinion leaders were nominated by different stakeholders with the help of NHC and recognised legitimate leadership in the community and were later interviewed by the same panel (i.e the HPTN 071 PopART staff, NHC and a stakeholder). The third

approach was through nominations only, in which some organisations (appropriate government departments, NGOs etc) present in the community nominate a representative using a standardised criterion.

*“Three mechanisms are used to recruit CAB members, depending on who they represent in the community. Specifically, CABs shall be selected through advertising and interviews, nominations and interviews and lastly through nominations only.” **Standard-Operation-Procedure***

There were basically two forms of CABs in the HPTN 071 PopART study. One CAB was primarily formed to engage all community members and another was later introduced to represent young people or adolescents in HPTN 071 PopART called the Adolescent Community Advisory Board (ACAB). The ACAB, just like the adult CAB performed similar functions except the focus in this case was on the adolescents. The idea behind the formation of the ACAB was that young people could better be represented by their peers and as such would be open and feel free to interact with their age groups. Therefore, each community had ACABs representing the views of the adolescents.

*“... the young people came out strongly and said they wanted to represent themselves. They felt that they could better articulate issues that concern them if they were in an environment that was suitable for them and have the freedom to talk amongst themselves. So we sent this back to the adults and eventually we needed to form the ACABs. We also have full ACABs, one in each of our communities. So that’s one way in which we have been engaging the communities (adolescents).” **KII-13_HPTN 071 PopART-Staff***

4.4.2 The Purpose of the CAB

The main purpose of the CAB was to ensure community input into the HPTN 071 PopART study process and protection of the study participants by building mutually reinforcing partnerships between the HPTN 071 PopART researchers, the CAB members, community sites and the residents of the community. Among other functions, the CAB were able to understand not only HPTN 071 PopART but also interpret the salient areas of the study to the broader community to ensure that people understand the different interventions in the study including the benefits and risks involved. CABs also participated in the design and revision of some of the IECs used in the study to ensure that the materials conformed to the social and cultural norms of the community. In the HPTN 071 PopART study, dialogue between the community and HPTN 071 PopART researchers was an ongoing process and the CABs were tasked with

the responsibility of facilitating meaningful dialogue between the two and ensure the smooth implementation of the study.

“CABs will participate in the design and revision of study related IEC materials, ensuring that they conform to the social and cultural norms of each community. CABs will also facilitate dialogue between HPTN 071 PopART researchers and the broader community on issues that arise from the implementation of the study.” CE-Manual-Of-Operations (MOP)

CABs from the two study sites seemed to understand their roles in the study and were very knowledgeable about the study intervention.

“Our role as CABs is to work in the communities where we live and then there are CHIPS who come in the field, then when they are faced with any challenge in the field, they come to us so that we work together in solving that challenge. Then we also sensitise the community ... we go in the field to sensitise people on the benefits of the program (HPTN 071 PopART). Sometimes people may chase the CHIPS away, but we manage to convince that person because our job is to go in the community and talk to people nicely about the benefits of HPTN 071 PopART.” FGD6_R1_CAB

“As CAB members we need to deal with any fears that the community may have with regards to research. So issues of any myths, issues of any suspicions need to be clarified by the community advisory boards so that people participate freely, actively in the research...” FGD12_R8_CAB

4.5 Appropriateness of Communication and IEC Materials Used in HPTN 071 PopART

Both community members and HPTN 071 PopART study staff shared similar views that face-to-face community sensitisation was the best form of communication. Despite agreeing that face-to-face or door-to-door was the most preferred approach, the study participants also acknowledged the importance of combining different communication approaches as the most effective form of communication that can bring about improved community engagement and participation.

4.5.1 Face-to-Face or Interpersonal Communication

Interpersonal communication in this case consisted of door-to-door community sensitisations or visitation. Various community members and HPTN 071 PopART staff had different views

and perceptions with regards the use of face-to-face communication in HPTN 071 PopART. Below we have compiled some of the key perceived advantages of interpersonal communication over other forms of communication in HPTN 071 PopART.

Quick feedback: Both HPTN 071 PopART implementers and community members saw face-to-face communication as an opportunity to get feedback on the information that was sent out to the community. Some HPTN 071 PopART staff noted that people usually had a lot of questions when they get information from a poster or flyer, and would not have anyone to ask for further information at the time they are reading the poster or flyer. Thus, they saw face-to-face as the quickest way to get feedback and understanding of the message.

“For a flyer... when someone reads a flyer, there are questions that come up... but when you are having a one on one discussion with a person, such questions are dealt with there and then. So talking to them like that becomes slightly better than the flyer because there is that exchange of information; they read and where they don’t understand they are able to ask and you are able to give out that information there and then. There is quick feedback on the information given to our clients through face-to-face communication.”

FGD11_R7_CHiPs

Correction of messages: Through interpersonal communication, it was reported that program implementers were able to get feedback on their message content and were able to correct or adjust their messages to suit the prevailing context. It was noted that face-to-face communication offered intervention field staff (CHiPs) an opportunity to pay attention to the community members’ facial expressions and body language to determine if a message had been understood or not. By paying attention to such detail, CHiPs were able to change the mode of message delivery should their client fail to understand the information being given to them.

“As we are talking to the people one on one, we are able to notice their emotions and see how they react. Then we are able to deal with it according to how we see the situation. If they haven’t understood or maybe there is any problem, they have encountered they tell us and we can explain better.” ***FGD12_R10_CHiPs***

Creates friendship and trust: Through door-to-door sensitisations, CHiPs interacted with community members on a daily basis, thereby creating mutual trust and friendship with community members. Some community members were sad the study (HPTN 071 PopART) was ending because they felt like they would also lose their ‘extended family’ which in this

case were the CHiPs. Some community members also felt that interacting with the CHiPs on a personal level made it easy for them (community) to understand the HPTN 071 PopART project goals as compared to getting information from other sources such as posters and brochures.

“... And we did that because we built relationships with the community, we are part of these communities. They know us and when we were going back to tell them that the intervention was ending in December ... from some of our participants we were hearing stories of how they were weeping. That attests to how good we have managed to communicate with them and that we have created a bond.?” **KII-12_HPTN 071 PopART-Staff**

Suitable for adults: Some community members felt door-to-door community sensitisations were more suitable for adult women, as they believed majority of the women would be at home during the day. They however, together with HPTN 071 PopART implementers, acknowledged the difficulty of finding men at home during the door-to-door visitations. However, creative methods of engaging men in the study were developed as the study proceeded. Further, it was also established that young people in the study were better engaged through the use of popular theatre such as drama and other entertainment activities.

“The challenges we mentioned that men are hard to find at home, they are never home during our door to door visitations. So we came up with a solution of going overtime or going early, like going around 17, depending on what time you have been told, 20hrs ... then you go with the supervisor with the vehicle to meet that person.” **FGD5_R3_CHiPs**

In order to improve male involvement in the study, study implementers developed a community engagement strategy called the ‘Man Up Now Campaign.’ This comprised a series of sensitisation activities conducted over a period of one to two weeks. At the end of the sensitisation activities, men were invited to a central place to access several health services which included BP check-ups, eye screening, TB screening, provision of information on VMMC and prostate cancer.

“The Man Up Now campaign had four objectives: increase uptake of males in the HPTN 071 PopART study, reduce male’ reluctance to seek medical intervention, increase male awareness on male specific (high risk) diseases including HIV and increase male awareness to their health needs.” **CE-Intervention-Field-Report**

4.5.2 IEC Materials

The study employed the use of IEC materials in the study to aid communication and education. An attempt was made to understand some of the perceptions that community members and study implementers had on the use of IEC materials in the HPTN 071 PopART communities. Below are some of the perceived advantages of IEC materials.

Suitable for people who can read English: It was noted that IECs such as brochures, posters and flyers were meant for literate people who were able to read English. Participants expressed their concern at the lack of IECs in local languages. Some community members believed that such materials should have been translated into local languages to help the locals in the HPTN 071 PopART catchment areas understand the message that was been put forward. They also noted that once posters were mounted in the various communities, some unsuspecting community members would remove the posters; hence, information would not be delivered to the intended audiences. It was also discussed that people usually had less time to read flyers or brochures, thus once such were given to them, they would end up throwing the materials without reading.

“... but you would find that those brochures... you know as Zambians we don't read, we can just receive that brochure then go and just pack it. So... I can say okay I have given them, but they will just keep that information at home. Some will get the flyers and later throw them away without reading. But if a person comes and speaks to them, they would get the information. So that is why the mode of sensitization needs to change...” **KII-8_Opinion Leader_Lusaka**

“The other thing is that not everyone knows how to read English, and many of these materials are produced in English and therefore not everyone may read the posters and brochures. Sometimes one maybe able to read, but maybe the terms used in that piece of information is difficult to understand and this may mislead someone. They are a good way of disseminating information but not everyone will be interested in reading. I don't know as a way of letting people understand, the materials can be translated into local languages to enhance understanding.” **FGD1_R8_Community**

However, worth noting in this study is that the video materials used were translated into the common local languages spoken in the respective HPTN 071 PopART communities. These videos were screened at health facilities in the HPTN 071 PopART catchment areas.

“HPTN 071 PopART is in different provinces. They speak different languages in all these provinces. Now the one basic language was obviously English, then we had to do local translations. The translations into the local languages that is commonly spoken in that area. So for Copperbelt, they would have both in English and the translated version in Bemba. In Lusaka we would have Nyanja and then English also. In Central Province we had Nyanja and Bemba, in Southern Province we have Tonga and later Lozi and English.” KII-12_HPTN 071 PopART-Staff

It was also explained that translation of messages used in the videos into local languages was not haphazardly done, but was carefully done to avoid diluting or changing the original English messages.

“... the translation was done based off the original script. But we had to contextualise it so that people get the gist because you tend to lose a lot in translation and so we had to pay special attention to that. And we worked with specific translators who are very, very good at this kind of thing.” KII-12_HPTN 071 PopART-Staff

Used as reference points and reinforce messages in communities: IEC materials such as posters, brochures and flyers were believed to be message reinforcements and points of reference. Community members believed that these IEC materials should only be used to disseminate information after people have had first-hand information through face-to-face community sensitisations. They noted that people can only use IEC materials as a reference point and such would make the work of CHiPs much easier.

“ ... because you will find that there are those who do not know how to read, so you will be able to interpret the message on the brochure, then you leave that brochure with that person so that someone who is literate reads for that person after you have already explained and that person will remember what you explained.” FGD5_R7_CHiPs

Made CHiPs’ work easier: It was reported that the IECs used in HPTN 071 PopART acted as tools to reinforce the information disseminated by CHiPs in the selected study areas, thereby making their (CHiPs) work much easier. The CHiPs from the two sites felt that using IECs during and after door-to-door visitation made their work much easier.

“... the other reason why we give them IEC materials is that because we deal with the whole family whenever we go to a household, so in case of an absent household member, for them to come and learn more on what we do as HPTN 071 PopART and CHiPs in

short, we leave them with the IEC so that they can come and read for themselves. Then if they have questions, they can even call because we leave our phone numbers... they can say, 'I want to see them (CHiPs) when they come.' This makes our work much easier because they will have an idea of who we are and what we are doing in the community."

FGD11_R9_CHiPs

4.5.3 Challenges of IECs in HPTN 071 PopART

Removal of posters in the community: Some of the community members and study staff acknowledged the importance of IEC materials in the HPTN 071 PopART study. However, they expressed similar views that there were inadequate IECs, specifically posters in the selected communities. They suspected that community members who couldn't read would tear off most posters in the communities. Some study staff also acknowledged that they did not have enough IEC materials to use in the field.

*"I think it (posters) attracts people although it has got its own challenges especially in the community. We had a challenge with posters in the community because most of the posters we take in the community, immediately you put it up, maybe a day or the same day it would be removed. However, if you put it at the clinic or schools, then people will not be able to remove. This is really a challenge in these communities. Some use it for covering books, there are some who are not interested in the message which is there, yeah that's the reason. Some will just say 'ahh these are just troubling us with their HIV.'" **KII-2_HPTN 071 PopART-Staff***

Lack of IECs for the visual and hearing impaired: It was discovered that HPTN 071 PopART did not have IECs for the visually and hearing impaired community members. It was noted that the visually impaired despite having the ability to hear, they also needed to have first-hand printed information in form of brail to get information while the hearing impaired individuals needed to have HPTN 071 PopART staff that could effectively communicate with them using sign language.

"... that is also a challenge because the brail material is also not there. The blind, though they can hear, but if they do not have that brail they will not get the needed information. They need to read for themselves the information... so that's what they are supposed to do as HPTN 071 PopART. They need to have all the categories to have the information. Whether deaf or blind, they are also people who want to access this information because

they are also sexually active. They are active so they need to have the information and know how to protect themselves from this disease.” KII-8_Stakeholder

Interesting to highlight however from this is that some CHiPs came up with initiatives to effectively engage and communicate with the speech and hearing impaired community members. For example, CHiPs from Central Province adopted a community member that could use sign language whenever they were communicating with such a population. This said person was also taken on to give special health talks at the health facility to the speech and hearing impaired population. Further, CHiPs from one of the communities in Lusaka also took it upon themselves to cater for the hearing and speech impaired clients in their community by enrolling in a basic sign language course to allow them effectively communicate with this minority population. This initiative was however, not adopted by all the communities in HPTN 071 PopART.

“We did not actually engage that demographic (speech and hearing impaired) for a long time until our CHiPs started encountering them in the communities ... So based on their own initiative they started engaging with them, it did not happen by design actually. So it was all about oh, actually I know somebody who can interpret sign language. Eventually this person is the one who was adopted by the CHiPs to be working with them and was also adopted by the clinic ... Then back here in Lusaka, the CHiPs themselves decided to enrol themselves in a course to do basic sign language. So because they also saw the need and also realised that these people needed the same services as the rest of the other people in the community. So that is how we worked around that.” KII-8_Stakeholder

4.6 Effectiveness of Engagement and Awareness Creation in HPTN 071 PopART

4.6.1 Knowledge about HPTN 071 PopART

Majority of the community members had a good understanding of what HPTN 071 PopART is, when it started and when the study was coming to an end. They were able to demonstrate knowledge on the various services offered within HPTN 071 PopART such as VMMC, VCT, HIV testing and TB testing. The community members were able to explain the procedures one would take if he/she was found HIV positive. However, despite knowing the services offered in HPTN 071 PopART, community members lacked a clear understanding of what the study was about and why they were part of the study. Further, community members from both sites could not tell the difference between Zambart and HPTN 071 PopART, they would refer to the

project as Zambart or “*bamene bamavala va green*” loosely translated as “*people that wear green clothes.*”

“These people that wear green T-shirts pass through sensitising people about HIV/AIDS and advising them on how to take good care of themselves if you are found positive or negative If they find you positive, they will advise you that it is not the end of life... they will encourage you and tell you everything you need to know about how to take good care of yourself... they even counsel you... that’s what they usually do... and that’s what I know...” **FDG7_R4_Community**

“Those are the ones who help people with condoms so that people use condoms when they want to have sex; especially those who are careless, those who have a girlfriend but they are married, or those who are in relationships but do not know their statuses. They also test for HIV and they sensitise about treatment... I hear that when one is tested positive, they bring people to the clinic so that they start treatment” **FGD2_R1_Community**

4.6.2 Myths and Misconceptions About PoART

Both community members and HPTN 071 PopART study staff acknowledged some of the myths and misconceptions that people had towards the study in the initial stages, which deterred people from taking part or being recruited into the HPTN 071 study. The community members and study staff were able to associate participation in the study with increased awareness and sensitisation in the study communities.

“When we started, we met some myths in the community around blood ad HIV. There were stories especially in year one that, ‘careful - so many things are happening in the community. These could be Satanists who are getting blood.’ So we used a lot of sensitisation through the meetings and other avenues which I told you about earlier. We had massive sensitisation campaigns, even the community mobiliser used to go round in the community talking about what we are all about and what we are trying to achieve. As time went on, people started accepting us because now they had information about what we were doing in their community.” **KII-2_HPTN 071 PopART-Staff**

We present some of the major myths and misconceptions that were prominent in the HPTN 071 study:

Thought blood was used for satanic rituals: This was the most common belief that was very frequent from all the study areas. Some sections of the study communities refused to take part in the HPTN 071 study because they believed that the blood that was drawn by the Population Cohort (PC) Team was used for satanic rituals, either to initiate someone into Satanism or offer the owner of the blood as spiritual sacrifice. Below are some of the narrations related to this;

“On HPTN 071 PopART, people used to say that they (HPTN 071 PopART staff) are Satanists... saying that if they come to your house do not allow them to come in because they will get your blood and if they get your blood, they will use it for Satanism... so don’t even allow them to test you.” KII-8_Stakeholder

However, worth noting here is that although most of the primary end point research results would be available at the end of the HPTN 071 PopART study, participants who wanted to know their HIV status had their blood tested and results given to them immediately.

Testing of HIV means selling one’s soul: Blood related beliefs were very common among community members. Some of the community members reported that at one point or another, they hesitated to participate in the study because they were told that the kits used to test HIV by the CHiPs were actually used to sell an individual’s soul. They believed that once a person was pricked with the test kit, that symbolised their initiation into Satanism.

“Regarding the study, the misconceptions are that up to now they have not given us our results. We don’t know why they are not giving us results, maybe its because maybe they have gone to sell our blood, maybe they have initiated us into Satanism. They sold our souls. So those are the misconceptions that we are receiving from the community.” KII-4_Opion Leader_ Livingstone

Zambart makes money through selling blood from participants: Another misconception people had towards HPTN 071 PopART is that some community members believed that Zambart used to sell the blood that was collected from the community by the Population Cohort (PC) team. Majority of the people used to wonder as to why the PC team did not give them the results after drawing blood and others did not understand what and how the blood was used for.

“The time when we started as I said earlier, people were saying these (Zambart) are just here to make money. This is an American project, you know Americans and money. They

would say that the blood drawn from them would eventually be sold and the organisation (Zambart) will get richer at their expense. People did not believe that the study would benefit them in the end. So we had time to go back to them to educate them saying ‘this study will benefit you as a community and not as individuals and Zambart is not making money from this project.’ **KII-2_HPTN 071 PopART-Staff**

All CHiPs are HIV positive: It was revealed that some community members were hesitant to be visited by CHiPs at their respective homes because they believed that all CHiPs and everyone working with the HPTN 071 PopART study was HIV positive. Some of the respondents reported that people in the community did not want to be associated with CHiPs as they were afraid to be labelled as being HIV positive. This was common at the beginning of the study.

“One of the myths which I heard is that everyone who works for HPTN 071 PopART was employed because they are HIV positive so that they may be assisting people with HIV in the community. So most of the people did not want CHiPs to visit their households because they did not want to be labelled as HIV positive” **FGD5_R7_CHiPs**

Lack of privacy: It was observed from a few FGDs that at first some community members did not want to take part in the HPTN 071 PopART study because of lack of privacy. It was reported that community members suspected that CHiPs were not professional in doing their counselling duties. They explained that people used to refuse to be tested by CHiPs, as they believed that CHiPs would disclose their HIV status to other community members. They noted that if one was tested and found HIV positive, CHiPs would tell other people about that person’s HIV status. This was most common among participants from the Livingstone site.

“What I used to hear in my community is that most people were afraid to get tested. For example, in my area, word had it that when CHiPs visit your household and have you tested, when you test positive, they would go and tell other people they visit from other households that such-such a person tested positive. ‘That house which we are from, I can tell you that they are sick.’ And when people heard this they started getting scared of being tested in their homes for fear that if they are found positive, then everyone would know about their status.” **FGD3_R2_Community**

Stigma: The fear of stigma was common in the two study sites, with participants acknowledging that some community members during the early stages of the study refused to

take part in the HPTN 071 PopART study. Because of rumours that all HPTN study staff were HIV positive and that once a person is tested, CHiPs would reveal that person's HIV status to others, some community members decided not to take part in the study for fear of being stigmatised in their respective communities.

“When we just started our door-to-door sensitisations, some people used to refuse us to visit them in their homes. They would say that they did not want people to think they are HIV positive because it was believed that everyone who was visited by CHiPs was HIV positive.” FGD6_R2_CHiPs

Test Kits transmit HIV: Another factor that deterred people from taking part in the HPTN 071 PopART study according to our study participants is that CHiPs were believed to be the ones that transmitted the HIV virus in the communities through the HIV testing kits. They believed that the testing kits used to test for HIV would be infected with the virus and a person would contract the virus when they are pricked.

“Some people used to think we are the ones who give people HIV in the communities when pricking them using the testing kit. Because we used to test people in their houses, we started doing it from outside and showed them how we were disposing the testing kits and showing them that once the kit is used, it cannot be used on anyone else.” FGD5_R3_CHiPs

“There are other people we work with (PC research team), for them, they draw blood from here [demonstrates pointing at the hand]. Where they pass through I also pass through. And when I go back there again, and since those do not give results, they would start saying, ‘those people came and drew my child’s blood and went with it, you want to come and finish our blood. They would even go on to say you are getting paid by exploiting us and you are the same people who are giving people HIV. When I was tested back then by Organisation X (Organisation name withheld) they just found me to be okay... then you come today and tell me I am positive... can’t you just go away... you are just going round giving people HIV...” FGD12_R9_CHiPs

4.6.3 Myths and Misconceptions about HIV Prevention and Treatment

It was noted from the interviews and FGDs that misinformation regarding HIV transmission, prevention and treatment had a negative effect on the recruitment and retention of participants in the HPTN 071 PopART study. These myths and misconceptions negatively affected the

communication of new information regarding HIV. Below we present some of the key myths and misconceptions that people had towards HIV transmission, prevention and treatment, which affected community engagement and participation in the HPTN 071 PopART study. Later we also present some of the measures that were taken by the HPTN 071 PopART to deal with these myths and misconceptions.

Religious Practices

Prayer cures HIV: Most community members reported that people still believe that prayer cures or completely heals HIV. The community members noted that some people resorted to prayer instead of taking ARVs when they tested positive. From both study sites, it was observed that this was the major hindrance to ART initiation when such an individual was tested positive. This belief existed even before the study and still existed in the study sites. Another problem was that some people would start ART and go for prayers simultaneously, but as their health improved, they equally stopped ART and concentrated on prayers.

“The other major thing I have noticed is the issue of pastors. That is one of the challenging things because here in Zambia, there are many churches being formed by people in order to obtain money from other people. Those pastors are the people who go round lying to people that prayers will cure them from HIV/AIDS...so as a result a lot of people stop taking the medication saying prayer will cure them... yes... so like here a lot of people die because of that...” FGD10_R2_Community

Traditional healers cure HIV: Despite advancement in technology and medicine, people still turned to traditional medicine when seeking healing. It was reported that linkage to care after one tested HIV positive was problematic because people still believed that HIV could be cured by traditional healers. Both community members and HPTN 071 PopART study staff acknowledged the influence that these beliefs had on the people and contributed to some community members refusing to be put on ART. This was widely identified as a contributing factor to poor linkage to care in all the study sites.

“Like I said, others used to believe that the CHIPs were really testing for HIV as they were from the clinic but others couldn’t accept. Others said they would rather go to a witchdoctor because the witchdoctors are able to see (see the problem) and they are better than health personnel... and they also give medicine... it is also better you go to

the pastor, he prays for you and you will be better... its better than these people drawing blood from you..." KII-8_Opinion_Leader

Social and Cultural Practices

Snuff (Sunko) prevents HIV transmission: Some women from both communities believed that application of snuff- powdered tobacco commonly known as ‘Sunko’ on a lady’s private parts before sex prevented HIV transmission. Because of this, it was believed that some women used ‘Sunko’ as protection against HIV instead of using a condom. However, some women argued that ‘Sunko’ was not used as a protective measure against HIV and that it was not applied on a woman’s private parts, but was rather used to keep the body temperature of a lady warm.

“You think that its only crocodile fat, even the traditional tobacco (Snuff or Sunko) that old people sniff through the nose is used to prevent HIV. You will see people nowadays sniffing the same. So some women eat it or they put it under the tongue and others apply it on their private parts” FGD8_R4_Community

Sexual intercourse with a virgin cures HIV: It was reported from some of the FDGs that some people within the study communities still believed that having sexual intercourse with a virgin would cure HIV, a practice that was said to be common among the males.

“The other is.... when you sleep with a child, then you will be cured of HIV... the witchdoctors are the ones who tell that to people... so that is why you have seen most cases of rape coming because of that... I don’t know how it is connected” FGD8_R8_Community

Use of alcohol prevents HIV transmission: It was further reported that some males in the study communities washed their manhood with alcohol after sexual intercourse as a way to prevent transmission of HIV. They believed that after having sexual intercourse with an HIV infected woman, one would prevent HIV infection by washing their ‘manhood’ with any alcoholic beverage to ‘kill the virus.’

“Just to add on, even a lot of young men prefer to go for circumcision because ... they believe that circumcised men cannot get HIV.... even married men are going for circumcision believing that they won’t be able to contract HIV. The other belief is that when you get a prostitute and sleep with her, as soon as you are done having sexual

intercourse with her, you need to just wash with a bottle of Mosi Lager that's all... then you won't get HIV... just using alcohol and you won't get HIV. The beer will kill the virus!" FGD8_R2_Community

Use of lemons and Vaseline prevents HIV transmission: Similarly, it was also noted that in some communities, some people used Vaseline (petroleum jelly) as protection from HIV infection. Some men believed that applying Vaseline on a person's 'manhood' before sexual intercourse would reduce the transmission of the disease as the Vaseline will act as a lubricant during the act.

"Others also believe that whenever a man and a woman are having sexual intercourse, they should immediately wash their private parts and that would prevent them from getting the HIV virus... Others even use lemons on their private parts; they say if you use lemons to wash your private parts after sex, then the HIV virus dies..., which is not true... All those myths are there in our community. Even this Vaseline, others say you apply it to your private parts before sex and that will stop the virus from entering your body."
FGD7_R1_Community

4.7 Measures to Counter Myths and Misconceptions

The above-mentioned myths and misconceptions either towards HIV transmission and treatment or towards the HPTN 071 PopART study had a negative influence on community engagement and participation. Therefore, there was urgent need to counter the myths and misconceptions in order to increase engagement and participation in HPTN 071 PopART. Counter measures developed to encourage male involvement and to increase engagement and participation in the HPTN 071 PopART study were centred on massive information dissemination in the different communities. Below are some of the initiatives that were developed to increase engagement and participation in HPTN 071 PopART.

Dissemination of Key Messages: Another approach was having information that placed more emphasis on the importance of HIV testing and early ART initiation if one tested HIV positive. Other key messages disseminated encouraged community members to stop stigma against people living with HIV.

"Test for HIV. Start treatment Now! Early treatment has benefits for you. You can stay healthy. You will remain productive for yourself, family and community. The Chance that

you will pass on the virus to your partner or child will reduce. Do not leave the clinic before you see a health worker. It is a healthy choice.” HPTN 071 PopART Poster – Four

“I Stop HIV/AIDS stigma! Do you? Together we can end HIV stigma in our community. See a counsellor or health care provider at your local clinic if you are being stigmatised.”

HPTN 071 PopART Poster - Five

Because people had a negative attitude towards HPTN 071 PopART, massive community sensitisations were conducted to inform and remind people about HPTN 071 PopART; what it was and why the study was being undertaken. This was done through various community mobilisation activities among them community meetings, facility (could be schools, churches, clinics, markets etc) based health talks and use of popular theatre. Some flyers containing key information about the study were distributed in the study communities.

“The HPTN 071 or PopART study is being conducted in Zambia by Zambart in collaboration with the Ministry of Health, Community Development, Mother and Child Health and other partners... is a study that will find out whether offering a combined package of HIV prevention interventions to a community will help reduce HIV transmission. PopART offers everyone in the community an opportunity to test for HIV, and start ARVs as soon as possible to people who test HIV positive.” HPTN 071 PopART Flyer - One

Engagement of Adolescents. When the study started, the only CAB that existed was for the adults. However, after the study commenced and it was later suggested that the young people needed their own representative body to increase their participation and involvement, the ACAB was formed. The ACAB became the link between the young people in the study and the study implementers. This helped the study implementers reach more youths and find strategic methods of reaching out to the youths.

Male Involvement: Among the major problems was the inability to find men at home in the study. In order to increase male involvement in the study, Zambart developed the ‘Man Up Now’ campaign within HPTN 071 PopART aimed at increasing male involvement in the study as earlier alluded to. For example, one message that was printed on a Man Up Now Campaign T-shirt read as follows at the front, “*Man Up Now!*” with the back of the T-shirt carrying the message “*A healthy man, a healthy family, a healthy community.*” Such messages encouraged men to take interest in their health. Apart from the Man Up Now campaign, CHiPs in the study

started working on weekends to reach men that would have been at work during the working days. Some CHiPs would start their fieldwork very early to catch the working males before they go for work or some CHiPs would work even after working hours in order to visit males when they knock off from work.

4.8 Communication and Awareness Strategies in HPTN 071 PopART

In terms of communication and awareness creation, HPTN 071 PopART study used both mass communication and interpersonal communication strategies. *Table 4.3* presents a summary of the various communication channels that used in the HPTN 071 PopART study.

Table 4. 3: *Summary of Communication Channels as recorded in the Community Engagement Standard Operation Procedure.*

Interpersonal Communication	Mass Communication
Popular theatre – Drama, Song and Dance	Video/Film placed in health facilities
Door to Door community sensitisation	Announcements (presentations in schools, churches and community events
Community meetings	Important health observation days/weeks
Community Focus Group Discussions	Established local events (school sports days etc)
Health Education/Sensitisation sessions	Study launch activities
Stakeholder Meetings	Print – Brochures, posters, flyers, information sheet
CAB Meetings	

Worth noting here is that the Mass Communication being talked about is not the conventional way of communicating through television stations, radio, newspapers or the new media (Internet) but rather communicating to large groups of people. The study could not use the conventional Mass Communication for fear of causing contamination; as people could be tempted to move between study arms or from control to the study arms where communities are located close to each other.

“Using the mass media means everyone gets the information, thus there are people that may not belong to the HPTN 071 PopART communities and once they know that this area has such an intervention, they would be tempted to move to that area. This brings about contamination in the different study Arms.” KII-12_HPTN 071 PopART-Staff

The use of a particular communication channel depended on area context and appropriateness of the communication channel. The most common among the communication channels was the door-to-door community sensitisation and use of printed IEC materials such as posters, flyers and brochures; including information sheets that were used by the CHiPs.

4.9 Development of IEC Materials in HPTN 071 PopART

The development of IEC materials in HPTN 071 PopART was a very long and tedious process. This was not a one off activity but was an ongoing process where IEC materials were developed and improved upon throughout the entire implementation period of the study. The development process of IEC materials was not done by one department or one person, but was a very carefully planned, inclusive, thought out and consultative process that was led by the community engagement department with help from other departments. A formative assessment or research was conducted with the help of the social science department to understand the information needs of the community. Further input from the community engagement and intervention teams was also required to help with the development of IECs that could inform people about the study, the benefits of the study and why people needed to participate in the study.

*“The social science team had a critical element, they brought in their own view points, community engagement their own view points, the intervention team, because they are the ones who were delivering the intervention part of the research brought in their own aspect. Then communication also brought in its own aspect. It was team work. It was not done by one person. No! it was a development process, there was a conceptualisation and development process. There was a lot of research on what methods of communication we would use to engage the communities” **KII-12_ HPTN 071 PopART-Staff***

Once the information needs were identified, the Social Science, Intervention, Communications and Community Engagement departments had to brainstorm on the target audience, what tools to use to reach the various targeted audiences and with what message. Once an agreement was reached, the combined team now drafted messages to include in IEC materials responding to the identified information gaps. However, it was also critical to get community input on what information was to be disseminated and how it was to be structured. The study team ensured that some community members, for example, HIV positive community members were engaged to suggest certain information to the HPTN 071 PopART team, and at times such individuals could be used as role models in the information given to the larger communities.

“So this is the reason why we are deliberate in involving the people who we involve, we wanted people with HIV for example to be able to talk to the community about HIV so that people can relate. These are real life stories in the messages and thus are more likely to have an impact on the target population. So in terms of principle, it did not always work out that you keep your messages short and simple. We wanted the people themselves to give us what information was needed and how it was supposed to be given.” **KII-12_ HPTN 071 PopART-Staff**

“The community members are the ones who suggested what they wanted to see, for example on the posters and before we did the actual photo shoot for the IEC material, community members told us if you’re talking about stigma for example, we want to see an individual who is like this and this. So we went and did that and the fact that we used in some cases people that were known, I think people were drawn to the information.” **KII-11_ HPTN 071 PopART-Staff**

Another level of community input was required through the community representatives in form of the CABs. Thus, the draft materials were at this stage sent to CABs for their input. The CABs, being the community representatives, would ensure that the developed materials were acceptable and appropriate to the community. Once the CABs had their input, the materials were sent back to head office for further revision. The team (Social Science, Intervention, Communications and Community Engagement) then had to sit and look at the suggestions by the CABs. The final materials from this stage were then sent to the various communities for dissemination. Once the materials were in the communities, community members would report any issues that arose from the IEC materials to the CABs and CABs would later inform head office of the problem(s). Depending on the gravity of the problem, Head Office could recall the materials so as to have them corrected. During the development process, there was complete attention to detail, including what colours were to be used and how certain terms were to be phrased in order to have maximum impact.

“We had a brochure that had information on using a condom for anal sex. When we printed those brochures we had to call people for a meeting, CAB members and stakeholders. We had to go through the same brochure so they said no, ‘In our community setup, they can’t allow this so can you remove this line of anal sex.’ I know it happens in prisons, in some houses, guest houses and lodges, it happens but when it comes to the

community ... it's like a taboo... We had to withdraw all the brochures from the sites before they were given out" **KII-7_HPTN 071 PopART-Staff**

"I remember one instance when we had almost settled for the colour red. But then the social science team who were the first to enter these communities before anybody else did, they raised a red flag and said we cannot wear red in the community even if it looks nice on us. Because red in the community is associated with a lot of things, for example Satanism." **KII-12_HPTN 071 PopART-Staff**

Figure 4.1 below shows the development process used when designing and developing IEC materials.

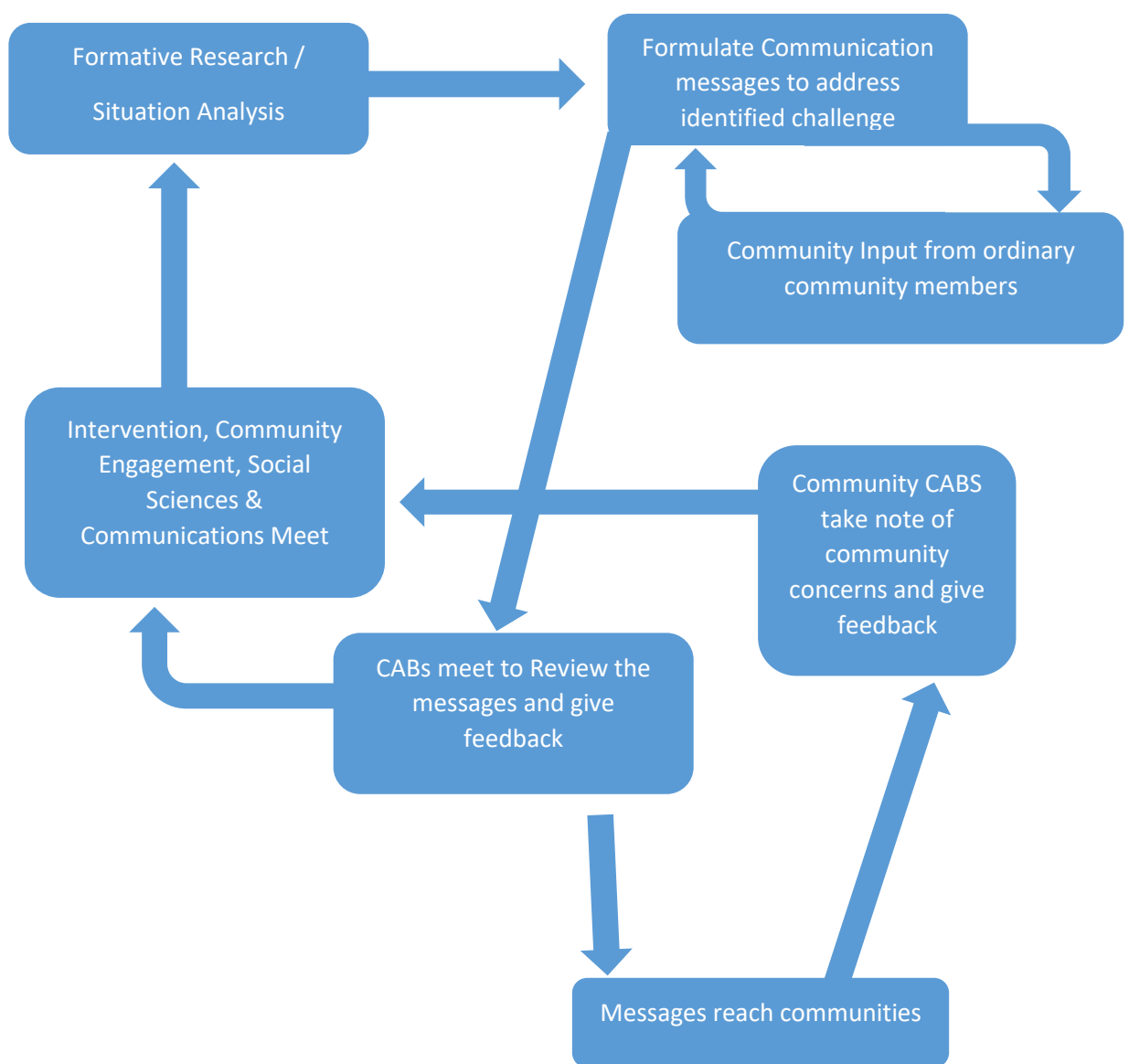


Figure 4. A: A summary diagram of the development process of IEC materials in HPTN 071 PopART

CHAPTER FIVE: DISCUSSION

The study findings suggest that in order to attain high levels of community engagement in HIV trials, there is need to design and implement effective Community Engagement (CE) and communication strategies. These must aim to address three core issues if they are to be effective, which include the use of multiple community engagement approaches, have appropriate and adequate health education, and a collaborative approach to designing and implementing communication strategies.

The first core consideration to effective CE is the use of multiple engagement strategies. It is widely accepted that there are many ways of engaging with communities because of different cultural, traditional, religious and socioeconomic factors. Therefore, this means that there is no 'one size fits all' strategy to engage with the community in the implementation of HIV prevention trials. This study has demonstrated that using multiple approaches (informed by local knowledge and priorities) to engaging communities made HPTN 071 PopART more relevant to the local needs. It is therefore, imperative that programme planners and implementers not only use approaches that involve direct engagement with potential research participants and their communities but also use those that involve engagement through community representatives to maximise community engagement and participation.

While it is true that using both direct and representative engagement worked for HPTN 071 PopART, it is also worth noting that even one form of engagement approach may equally work to achieve community participation. For example, the HapMap project as reported by Rotimi *et al.* (2007) had positive community participation despite utilising more of direct engagement than the representative approach where people were engaged through town hall meetings and public forums. This difference in findings suggest that CE approaches in randomised trials are context specific. An approach that will work in one trial may not work in another trial. A systematic review conducted by Tidana *et al.* (2015) on community engagement strategies for African studies confirms this by suggesting that there is no one correct way to engage communities, but that the methods used will depend on the goals of the engagement, the context in which the research is carried out and the level of engagement. Further, a study by Morin *et al.* (2008) in Peru, Zimbabwe and Thailand investigating community partnerships add to this argument by noting that mobilisation activities in an intervention can differ across sites contributing to the same project because of the differences in community structure and cultural norms.

The most commonly used representative engagement approach in community based trials is the use of Community Advisory Boards (CABs) (Mwinga and Moodley, 2015; Simwinga et al., 2018). A study conducted by Nakibinge *et al.* (2009) in rural Uganda proposes that in order to have a functioning community engagement strategy, a forum through which community members can voice out their dissatisfactions, complaints, criticisms and appreciations of a project should be established. In this case, the CAB was formed in HPTN 071 PopART for this reason. In terms of selection of members into the CABs, Simwinga *et al.* (2018) in his article on CABs proposes that CABs should be selected by community members themselves in order to hold them accountable to the decisions made on behalf of the community. He also noted that if community members are not involved in the selection of CAB members, there is a possibility that CABs would not be recognised as legitimate community representatives. However, this study has shown that despite the general community members not being directly involved in the selection of CAB members, they (community) knew the CABs and understood the roles CABs played in the community. The community acknowledged the importance of having CABs in the HPTN 071 PopART study. CABs in HPTN 071 PopART were respected and recognised by the community members. This could be attributed to the fact that the HPTN 071 PopART engagement approach was built on the community engagement and community capacity established during the ZAMSTAR trial in which communities were constantly engaged for seven years. Because of the ZAMSTAR trial, Zambart as an institution was known in the communities, thus it was easy for them (Zambart) to reach out to the communities.

The second core issue to consider is ensuring adequate and appropriate health education, which plays an important role in facilitating community engagement and participation in randomised trials. Health education helps to transform the mind-set of the community through empowering them with information about the relevance of the study. However, for this to happen, it is imperative that sufficient time is allocated to health education, ensuring that communication materials, especially IECs are translated into local languages and innovative approaches are employed when creating awareness about the trial. This study has shown that timely information dissemination was key in dealing with some of the challenges faced such as myths and misconceptions that people had towards HPTN 071 PopART. These findings are consistent with those from a multiple case study conducted in Thailand, India, South Africa and Canada by Newman *et al.* (2015). Newman and colleagues argued that trial misconceptions can negatively affect community engagement. Thus, early dissemination of information about a

study to the target population and stakeholders is key to the successful engagement of communities and stakeholders, which will ultimately improve participation.

Despite HPTN 071 PopART being visible and known in the study communities, IECs such as posters were all produced in English; the study did not have braille for the visually impaired community members and did not have sign language interpreters featured in the videos used to disseminate HPTN 071 PopART information in health facilities. It is the assumption of this author that HPTN 071 PopART study implementers had a misconstrued conception that HPTN 071 PopART community members needed a homogeneous mode of communication, which was far from reality. In this case, the hearing and visually impaired community members relied on information given to them by their peers and families concerning HPTN 071 PopART. A study by Chintende et al. (2017) in Zambia notes that despite the increase in health promotion and education programmes on HIV/AIDS, there is still lack of information on HIV/AIDS and communication for persons with disabilities. Another study by Nixon et al. (2014) found that people with disabilities are usually excluded from HIV planning and programming largely due to perceptions that they are not at risk when in fact they are at risk as any other able-bodied person. Not considering the modes of communicating with such people not only puts them at a high risk of contracting HIV but also puts the entire research intervention at risk of not achieving maximum reach.

The third and final core issue to consider in implementing community-based trials is having a collaborative approach to designing and implementing communication strategies. In order to ensure compatibility of key messages with community norms, values and beliefs; the development of communication materials in community-based trials should be collaborative, inclusive and engaging from start to end. A study by Cherie (2005) concludes that having community input in the development of communication strategies will increase the probability that people will accept the information because this collaborative process ensures that the peoples' needs, interests, wants, concerns, opinions, attitudes and beliefs that govern their health behaviours are considered. This implies that a collaborative context or environment in which communication takes place largely dictates the type of messages and modes of communication to use. Results of this study have shown that community input was key to the successful communication of the HPTN 071 PopART intervention package to the various communities because the community was given an opportunity to decide what messages they wanted to receive and through what channel of communication.

It is important to strategically select who delivers information in trials because some studies (Megan, 2010; Cherie, 2005; and Aries, 2007) suggest that the source of a message has an impact on how the community will receive the information being communicated. This study has shown that having ordinary community members to suggest possible messages and characters to use on posters or in the films has an impact on how the community will receive the information being communicated. A study by Aries (2007) share similar findings that information is more reliable if the source is perceived to be credible and that the message being put across is understandable, appropriate, timely, practically applicable, accessible and in line with the expectation and interest of the target audiences. This can only be achieved if the target population is involved in the development of such information.

Development of communication strategies and key messages is one thing, but deciding which media or channel to disseminate this information through is another. This study has indicated that HPTN 071 PopART was more visible in the study communities because they used a variety of communication channels to put across their information to the communities. Of the various communication channels, people believed that interpersonal communication was the most effective approach to use because it allowed for among others quick feedback, helped care providers negotiate with clients on what constitutes a healthy behaviour and that it created mutual trust between the care providers and the community members. They also noted that interpersonal face-to-face communication enabled care providers explain complex study interventions in a language that could easily be understood by the community. Storey et al (2014) suggests that HIV prevention interventions are more effective if they use communication channels that can deliver more complex and nuanced combinations of information, that can convey more personalised and more emotional content, and that are interactive such as face-to-face communication because they are more engaging.

Overall, effective and strategic communication in HIV prevention trials helps in reducing trial-related myths and misconceptions that may discourage people from taking part in a study. When a new innovation or intervention is introduced in a community, communities tend to have uncertainties over the new innovation and this may affect community engagement and participation. Thus, massive communication through appropriate awareness activities about the study will act as an uncertainty reduction process that would in the end decrease uncertainty in the community about the intervention. For example, the HPTN 071 PopART encountered a lot of myths and misconceptions about the study, particularly in the first year of implementation, which affected community engagement and participation. However, with increased

sensitisations about the study in the HPTN 071 PopART communities, community engagement and participation improved. Communication with the communities allowed HPTN 071 PopART researchers to understand the prevalent cultural norms in the HPTN 071 PopART communities. Because of this, researchers were able to fit the research with the needs of the communities.

CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

This study has shown that HPTN 071 PopART used both direct and representative community engagement approaches. On one hand, direct engagement involved activities that promoted face-to-face interactions between the research team and the target population; among them community meetings, door-to-door sensitisations, and facility based health talks. The representative approach on the other hand used community Advisory Boards (CABs) to engage with the people. Awareness creation strategies comprised of Video/film, IEC materials, drama, community meetings and the door-to-door community sensitisations. Study implementers and community members felt door-to-door was the best approach to use when introducing a program and when explaining complex issues within the study. Communication with the community allowed HPTN 071 PopART researchers to understand the prevalent cultural norms in the communities. However, it was further established that IEC materials such as posters and flyers were not translated into local languages, posing a challenge to people who could not read English. Further, HPTN 071 PopART study did not have the channels of communication for the visual and hearing impaired. None of the IEC materials were in braille format and none of the videos/film featured sign language interpreters. Despite these challenges, the overall community engagement and community participation in HPTN 071 PopART was quite strong.

This research has highlighted the various communication factors that shape community engagement in HIV prevention trials. Worth noting is that communication and community engagement approaches are context specific. There is therefore, no one correct way of communicating or engaging with communities in HIV randomised trials. The most important factor to consider is that the type of communication in such community-based trials largely affects community engagement. This study has demonstrated that good communication approaches to disseminating information about a study will affect community engagement either positively or negatively. Communication helped support community engagement and participation in the HPTN 071 study by reducing the myths and misconceptions that people had towards the study. Communication in HPTN 071 PopART helped create mutual understanding and trust between the study team and the community because the approaches used to communicate required direct contact with the HPTN 071 study participants.

Therefore, it is key that all types of people in the community are considered when planning, designing and disseminating study information. There is need to invest more resources by researchers in catering for information needs of the visually and hearing impaired individuals in communities as these are usually left out. In most of the studies, such people are usually not considered and their access to information about a study are overlooked. Researchers need to cater for such a population by having IECs in braille, having community HIV care providers who can interpret and use sign language and have films that feature sign language interpreters. Communication in HIV prevention trials acts as uncertainty reduction processes which will decrease uncertainty in the community about the study, thus improving community engagement and participation.

6.2 Recommendations

- i. This study has shown that communication in the HPTN 071 PopART trial was a consultative and collaborative process; we therefore, recommend that this becomes a standard for all HIV prevention trials where the community are involved in the development of communication and community engagement strategies to align the study with community needs.
- ii. There is need to undertake research on how best to effectively incorporate traditional healers and religious leaders in HIV prevention programs as it is evident from this study that that traditional healers and religious leaders play a critical role in influencing community engagement and participation.
- iii. Engaging men in HIV prevention programs still remain a big challenge. More research on understanding why men are less engaged in such important studies is an interesting area to explore.
- iv. There is need to invest more resources by researchers in catering for information needs of the visually and hearing impaired individuals in communities as these are usually left out by most of the studies in HIV prevention.

REFERENCES

- Ajayi, V., (2017). *Primary Sources of Data and Secondary Sources of Data*. 10.13140/RG.2.2.24292.68481., available at [www.researchgate.net/publication/320010397 Primary Sources of Data and Secondary Sources of Data](http://www.researchgate.net/publication/320010397_Primary_Sources_of_Data_and_Secondary_Sources_of_Data), Accessed 29th January 2019.
- Allotey, P., Reidpath, D., Ghalib D., Pagnoni F., & Skelly, W., (2008). Efficacious, effective, and embedded interventions: implementation research in infectious disease control. *BMC Public Health*, 8, 1.
- Aries, M.J., Joosten H., Wegda, H.H.J., & Van der Geest, S., (2007). *Fracture treatment by bonesetters in central Ghana: patients explain their choices and experiences*. *Tropical Medicine & International Health* 12(4), p.564-574
- Atkinson, J.A., Vallely, A., Fitzgerald, L., Whittaker, M., & Tanner, M., (2011). The architecture and effect of participation: a systematic review of community participation for communicable disease control and elimination. Implications for malaria elimination. *Malar J*, 10(1), p.225
- Ayles H, Muyoyeta M, Du Toit E, Schaap A, Floyd S, Simwinga M, et al. (2013); Effect of household and community interventions on the burden of tuberculosis in southern Africa: the ZAMSTAR community randomised trial. *Lancet*. 382 (9899): 1183–94.
- Babu B.V., and Mishra S., (2008). Mass drug administration under the programme to eliminate lymphatic filariasis in Orissa, India: a mixed-methods study to identify factors associated with compliance and non-compliance. *Transactions of the Royal Society of Tropical Medicine and Hygiene* 102(12): p.1207-1213
- Bardosh, K., (2014). Global aspirations, local realities: the role of social science research in controlling neglected tropical diseases. *Infect. Dis. Poverty*, 3, p.35
- Barker A (2006); *Improve Your Communication Skills*. Second edition. Kogan Page, London
- Boga M, Davies A, Kamuya D, Kinyanjui SM, Kivaya E, Kombe F, et al. (2011); Strengthening the informed consent process in international health research through

community engagement: the KEMRI-Wellcome Trust Research Programme Experience.
PLoS Med.;8(9), e1001089

Bond, V., Chiti, B., Hoddinott, G. Reynolds, L., Schaap, A., Simuyaba, M., Ndubani, R., Viljoen, L., Simwinga, M., Fidler, S., Hayes, R., Ayles, H., Seeley, J., HPTN 071 (HPTN 071 PopART) study team. (2016). *The difference that makes a difference": highlighting the role of variable contexts within an HIV Prevention Community Randomised Trial (HPTN 071/HPTN 071 PopART) in 21 study communities in Zambia and South Africa.* *AIDS care*, 28 Suppl 3 (sup3). pp. 99-107. ISSN 0954-0121 DOI: [10.1080/09540121.2016.1178958](https://doi.org/10.1080/09540121.2016.1178958)

Bracht, N., & Tsouros, A., (1990); Principles and strategies of effective community participation. *Health promotion international*, 5, p.199-208

Central Statistical Office (CSO), Ministry of Health (MOH), and ICF International, (2014); *Zambia Demographic and Health Survey 2013-14*, Available at <https://dhsprogram.com/pubs/pdf/FR304/FR304.pdf> accessed on 8th April 2017

Central Statistical Office (CSO), Ministry of Health (MOH), and ICF International, (2009); *Zambia Demographic and Health Survey 2007*, Lusaka, Available at <https://dhsprogram.com/pubs> accessed on 8th April 2017.

Cherie, A., Mitkie, G., Ismail, S., Berhane, Y., (2005); Perceived Sufficiency and Usefulness of IEC Materials and Methods Related to HIV/AIDS among High School Youth in Addis Ababa, Ethiopia. *African journal of reproductive health*. 9. 66-77. 10.2307/3583161.

Chintende N. G., Sitali D., Michelo C., and Mweemba O., (2017); Situational analysis of communication of HIV and AIDS information to persons with visual impairment: a case of Kang'onga Production Centre in Ndola, Zambia., 10:150., *BMC Research Notes*, 10(1)., DOI 10.1186/s13104-017-2473-4

Corcoran, N., (2007); *Theories and models in communicating health messages*, In: Corcoran, N., editor. *Communicating health: Strategies for health promotion*. London: Sage Publications Ltd;. p. 5-31.

- Cornwall, A., Lucas, H., & Pasteur, K., (2000). Introduction: accountability through participation: developing workable partnership models in the health sector. *IDS Bulletin*, 31, p.1-13
- Dodd, P., Garnett, G. and Hallett, T. (2010). Examining the promise of HIV elimination by ‘test and treat’ in hyperendemic settings. *AIDS*, 24(5), pp.729-735.
- Eastman, S. and Ferguson, D. (2013). *Media programming*. Australia: Wadsworth.
- Ellen, J., Wallace, M., Sawe, F. and Fisher, K. (2010). Community Engagement and Investment in Biomedical HIV Prevention Research for Youth: Rationale, Challenges, and Approaches. *JAIDS Journal of Acquired Immune Deficiency Syndromes*, 54, p.S7-S11.
- Fong, I.W. (2013). *Challenges in infectious diseases*. NY: Springer Science Business Media
- GARPR Zambia Country Report (2013); *Monitoring the Declaration of Commitment on HIV and AIDS and the Universal Access*; submitted to the United Nations General Assembly special session on HIV and AIDS, reporting period: January 2012 – December 2013
- George AS, Mehra V, Scott K, Sriram V (2015); Community Participation in Health Systems Research: A Systematic Review Assessing the State of Research, the Nature of Interventions Involved and the Features of Engagement with Communities. *PLoS ONE* 10(10): e0141091. doi:10.1371/journal.pone.0141091
- Hayes, R., Ayles, H., Beyers, N., Sabapathy, K., Floyd, S., Shanaube, K.,...Watson-Jones, D. (2014); HPTN 071 (HPTN 071 PopART): *Rationale and design of a cluster-randomised trial of the population impact of an HIV combination prevention intervention including universal testing and treatment-a study protocol for a cluster randomised trial*. *Trials*, 15(1), p.57.
- Hayes, R., Ayles, H., Beyers, N., Sabapathy, K., Floyd, S., Shanaube, K.,...Watson-Jones, D., (2015): HPTN 071 Population Effects of Antiretroviral Therapy to Reduce HIV Transmission (HPTN 071 PopART): *A Cluster-Randomized Trial of the Impact of a Combination Prevention Package on Population-Level HIV Incidence in Zambia and South Africa – Version 3.0*, available at http://www.hptn.org/research_studies/hptn071.asp, Accessed 10th April 2017

- Ismail, S. (2006). Detailed Review of Rogers' Diffusion of Innovations Theory and Educational Technology-related Studies based on Rogers' Theory, *The Turkish Online Journal of Educational Technology* – ISSN: 1303-6521 volume 5. Issue 2. Article 3
- Manderson, L., Aagaard-Hansen, J., Allotey, P., Gyapong, M. & Sommerfeld, J. (2009). Social research on neglected diseases of poverty: continuing and emerging themes. *PLoS Negl Trop Dis*, 3, p.332.
- McQuail D., (2010); *Mass Communication Theory*, 6th edition, New Delhi: Sage
- Megan A. Prilutski, (2010); *Brief Look at Effective Health Communication Strategies in Ghana*. The Elon Journal of Undergraduate Research in Communications • Vol. 1, No. 2
- Megan A. Prilutski, (2010); *Brief Look at Effective Health Communication Strategies in Ghana*. The Elon Journal of Undergraduate Research in Communications • Vol. 1, No. 2
- Morin, S., Morfit, S., Maiorana, A., Aramrattana, A., Goicochea, P., Mutsambi, J., Robbins, J. and Richards, T. (2008). Building community partnerships: case studies of Community Advisory Boards at research sites in Peru, Zimbabwe, and Thailand. *Clinical Trials: Journal of the Society for Clinical Trials*, 5(2), pp.147-156.
- Murry, V. M., & Brody, G. H. (2004). Partnering with community stakeholders: Engaging rural African American families in basic research and the Strong African American Families preventive intervention program. *Journal of Marital and Family Therapy*, 30, p.271-283.
- Mwinga, A. and Moodley, K. (2015). Engaging with Community Advisory Boards (CABs) in Lusaka Zambia: perspectives from the research team and CAB members. *BMC Medical Ethics*, 16(1).
- Nakibinge, S, Maher, D., Katende, J., Kamali, A., Grosskurth, H., Seeley, J. (2009). Community engagement in health research: two decades of experience from a research project on HIV in rural Uganda. *Trop Med Int Health*. 14:190–195. doi: 10.1111/j.1365-3156.2008.02207.x.
- National HIV/AIDS/STI/TB Council, (2015); 2014 *GARPR Zambia Country Report*: (2014); *Monitoring the Declaration of Commitment on HIV and AIDS and the Universal Access*;

submitted to the United Nations General Assembly special session on HIV and AIDS, reporting period: January 2014 – December 2014

Newman, P.A., Rubincam, C., Slack C., Essack, Z., Chakrapani, V., Chuang, D.M., ... Logie, C., Koen, J., Lindegger, G. (2015). Towards a Science of Community Stakeholder Engagement in Biomedical HIV Prevention Trials: An Embedded Four-Country Case Study. *PLoS ONE* 10(8): e0135937

Nixon, S. A., Cameron, C., Hanass-Hancock, J., Simwaba, P., Solomon, P. E., Bond, V. A., Menon A., Richardson, E., Stevens, M., and Zac, E., (2014); Perceptions of HIV-related health services in Zambia for people with disabilities who are HIV-positive. *Journal of International AIDS Society*, 17(1), p. 18806

Pick, A., Gilbert, K., & McCaul, J. (2014). The role of effective communication in achieving informed consent for clinical trials. *Nursing Standard*. 29, 10, p.45-48

Rotimi, C., Leppert, M., Matsuda, I., Zeng, C., Zhang, H., Adebamowo, C., Ajayi, I., Aniagwu, T., Dixon, M., Fukushima, Y., Macer, D., Marshall, P., Nkwodimmah, C., Peiffer, A., Royal, C., Suda, E., Zhao, H., Wang, V. and McEwen, J. (2007). Community Engagement and Informed Consent in the International HapMap Project. *Public Health Genomics*, 10(3), pp.186-198.

Ruben, B. D., (1984); *Communication and human behaviour*, New York: Macmillan Publishing Co

Simwinga, M., Bond, V., Makola, N., Hoddinott, G., Belemu, S., White, R., Shanaube, K., Seeley, J. and Moore, A. (2016). Implementing Community Engagement for Combination Prevention: Lessons Learnt From the First Year of the HPTN 071 (HPTN 071 PopART) Community-Randomized Study. *Current HIV/AIDS Reports*, 13(4), pp.194-201

Simwinga, M., Porter, B., & Bond, V., (2018): Who is answerable to whom? Exploring the complex relationship between researchers, community and Community Advisory Board (CAB) members in two research studies in Zambia, *Critical Public Health*, DOI: 10.1080/09581596.2018.1440072

Storey, D., Seifert-Ahanda, K., Andaluz, A., Tsoi, B., Matsuki, J. and Cutler, B. (2014). What Is Health Communication and How Does It Affect the HIV/AIDS Continuum of Care? A

Brief Primer and Case Study From New York City. *JAIDS Journal of Acquired Immune Deficiency Syndromes*, 66, p.S241-S249.

Tindana PO, Rozmovits L, Boulanger RF, Bandewar SV, Aborigo RA, Hodgson AV, et al., (2011); Aligning community engagement with traditional authority structures in global health research: a case study from northern Ghana. *Am J Public Health*;101(10):1857–67.6.

Tindana, P., de Vries, J., Campbell, M., Littler, K., Seeley, J., Marshall, P., Troyer, J., Ogundipe, M., Alibu, V., Yakubu, A. and Parker, M. (2015). Community engagement strategies for genomic studies in Africa: a review of the literature. *BMC Medical Ethics*, 16(1).

Tomori, C., Risher, K., Limaye, R. J., Van Lith, L. M., Gibbs, S., Smelyanskaya, M., & Celentano, D. D. (2014). A role for health communication in the continuum of HIV care, treatment, and prevention. *Journal of Acquired Immune Deficiency Syndromes*, 66(SUPPL.3). DOI: 10.1097/QAI.0000000000000239

UNAIDS, (2003): Quality and Coverage of HIV Sentinel Surveillance With a brief History of the HIV/AIDS Epidemic, *workshop on HIV/AIDS and Adult Mortality in Developing Countries* – New York, 8-13 September 2003, available at http://www.un.org/esa/population/publications/adultmort/UNAIDS_WHOPaper2.pdf accessed on 7th April, 2017

UNAIDS, (2017). *Fact sheet - Latest statistics on the status of the AIDS epidemic | UNAIDS*. [online] Available at: <http://www.unaids.org/en/resources/fact-sheet> [Accessed 17 Apr. 2017].

UNDP and the Government of the Republic of Zambia, (2014); *Zambia Human Development Report 2014*, Lusaka.

United Nations Children's Fund (UNICEF), 2008; *Writing A Communication Strategy for Development Programmes: A Guideline for Programme managers and Communication Officers*, UNICEF Bangladesh,

Velasco, M. and Hernández-Hernández, R. (2002). Introduction. *Journal of Human Hypertension*, 16(S1), pp.S1-S1.

WHO Progress Report, (2016); *Prevent HIV, test and treat all; WHO support for country impact*, WHO Press available at <http://apps.who.int/iris/bitstream/10665/251713/1/WHO-HIV-2016.24-eng.pdf> accessed on 7th April, 2017

APPENDICES

Appendix 1: Participant Information Sheet

What the study is all about

My name is **Mulanda Joseph Mulawa**. I am a Master of Public Health (MPH) student at the University of Zambia-Ridgeway campus under the School of Public Health, Department of Health Promotion and Education. I am conducting a study titled “The role of communication in supporting community engagement in HIV clinical trials: The case of the HPTN 071 Population Effects of Antiretroviral Treatment to Reduce HIV Transmission (PopART) Study in Zambia.” My study is embedded in the ongoing HPTN071 community randomised trial already approved by the University of Zambia Biomedical Research Ethics Committee (UNZABREC). The HPTN 071 is a 3-arm community randomized trial currently being undertaken in 12 communities in Zambia and 9 communities in South Africa. This study (HPTN 071) is aimed at evaluating the impact of a combination HIV prevention package, including a universal test and treat intervention, on HIV incidence in the selected communities.

My study is aimed at understanding the role that communication plays in enhancing community engagement in HIV clinical trials. I aim to identify barriers and opportunities to effective communication in community engagement processes. Further in this study, I am trying to understand how the whole communication process regarding the HPTN 071 is being conducted; who formulates the messages that are used in Information Education and Communication (IEC) materials, what is the criteria used to choose those who design and formulate IEC messages used in the HPTN 071 study. I also wish to understand the community perceptions on the current community engagement processes and also try to understand their perspectives on the current IEC materials used in the HPTN 071 PopART study. This study aims to interview program implementers at the implementing institution - Zambia AIDS Related Tuberculosis Project (ZAMBART), HPTN 071 PopART frontline staff in selected study sites and community members in Lusaka’s Kanyama and Livingstone’s Maramba communities.

Participation Involved

You have been asked to join this study because you have been identified as someone in the position to give me correct and accurate information regarding this topic. Additionally, you may be called upon for a subsequent interview if need be in the near future, but this is very

unlikely. Further, I also want to bring to your attention that participation in this study is voluntary. Therefore, you are free not to answer any questions that you are not comfortable with and once you agree to the interview, you are free to end the interview session at any time you wish to do so. Additionally, you can either choose to be in the study or not. If you choose to participate, you do not have to stay in the study until it ends and this will not affect you or any other privileges that you may enjoy now in the HPTN 071 study.

Benefits and Risks

Firstly, there will be no direct and immediate material and financial benefits to you as a research participant. Participating in this study allows understanding the formulation of IEC materials used during the HPTN 071 community randomised trial and understand how effective communication shapes community engagement and participation. Understanding the communication strategy used in the HPTN 071 community randomised trial will inform program implementers and planners to improve the current communication and engagement strategies so as to improve participation in the study.

By taking part in this study, it is very unlikely that you will suffer any physical or psychological harm. However, fatigue and stress may arise from the interviews as the interview sessions may be longer than the agreed time.

Confidentiality

All issues pertaining to participation in this study will be kept confidential. If you allow, we would like to record the interview. This helps us later on, when we try to remember what you said. We will only share the writings among the researchers on the project. When we report on our research, we may use some of the sentences that you said. If we use one of your sentences, it will appear together with a brief description of you (for instance, 'Kanyama resident1'), and a code for the interview (for instance, Interview 06). We will not use any other information that could identify you. After we have finished the project, we will destroy the recordings and keep only the transcripts. We will take out any identifying information from these transcripts. Transcripts will only be stored on password protected computers.

Please remember that if you do not want to answer any of the questions you may say so and the interviewer will move on to the next question. You can also decide to stop the interview or withdraw from the study altogether at any time without consequence.

Contact

This study has been approved by the University of Zambia Biomedical Research Ethics Committee (**UNZABREC**) and permission has also been obtained from Ministry of Health. Should you have any questions or want clarification about the study, you can contact the Principal Investigator, **Mulanda Joseph Mulawa** on **+260 976 075576** or email: mulandajosephs@gmail.com, or alternatively you can call the Chairperson of the University of Zambia Biomedical Research Ethics Committee at **+260211256067**.

Appendix 2: Informed Consent Form

By signing below, I _____, agree to take part in this study willingly. I understand the purpose of the study as well as the usefulness of the findings. I know my rights as a participant and I know the risks and benefits of this research.

Participant's signature/ thumbprint: _____

Date:

Witness signature/ thumbprint: _____

Date:

Appendix 3: Translated Participant Information Sheet - Tonga

Ibupampu bujatikizyanzi

Izina lyangu ndime **Mulanda Joseph Mulawa**. Ndimesicikolo mu lwiiyo lwa masters lujatikizya inseba zya mubukale a cikolo ci sumpukide ca University of Zambia-ku Ridgeway campus mu cibela ca lwiiyo lujatikizya inseba zyamubukale akusumpula inseba alwiiyo. Ndili a bupampu busola kuyandaula “mulimo wakukwabana mukukulwaizya bantu kulisanganya kuyandaula masimpe ajatikizya kazunda ka sikalileke; kaambo ka kuvulakwa bantu mukugum amusamuiwa Antiretroviral Treatment kucesya kuambuzigwa kazunda ka sikalileke (HPTN 071 PopART) mu cisi ca Zambia”kuyandaula kwangu kujatikizya ibupampu bucitika HPTN071 mubusalesale bwa bantu mubukale bwakazumizigwa a mbungano iya University of Zambia Biomedical Research Ethics Committee (UNZABREC). Obubuhabupampu bwa HPTN 071 bujisi zibeela zyoatwe mubukale buyandaula masimpe kwalino bucitika mu mbazuzilikumi a zyobile mu Zambia alimwi zilifwukaku South Africa. Olulwiiyo (HPTN 071) lusola kweelanikizya ibubotu naabubyabi bwakusanganya zibeela zyakwabilizi bwa kazunda ka sikalileke, kusanganyakuziba a kponya kazunda kwanyika yoonse mboizulwa, a twaambo twa kazunda ka sikalileke maandaasalidwe.

Buyandausibu sola kuyandaula mulimo ibukalembo bujisi mukugwasha bantu kuti balisanganye mukuyandaula masimpe ajatikizya kazunda ka sikalileke. Mukuyaambe, ndisola kuziba kuti mbuti ikukwabana koonse mbokuzwide ekujatikizya HPTN 071 mbokweendelezgw; Nguni ubamba mabbuku abelesyegwa mu lwiiyo lwamakani akukwabana (IEC), alimwi ndiyanda kuziba masena mbwatambwide mabbuku alwiiyo mukusola kusanganya mbobateelela mukuyeyakwabo amakani alinoya IEC akabelesyegwa mu HPTN 071. Eci cibalo cisolakubuzya babelesi mu mayale ayakumbungano zyaandene- Zambia AIDS Related Tuberculosis project (ZAMBART), HPTN 071 PopART aba habupampu babo muzibela mobabelekela omo Kamuli mu kanyama mu Lusaka alimwi a kumaramba mu Libingi

Kuli Sanganya

Mwalombwa kuti mulisanganye mu buyandauzi nkaambo mwajanika kuti mulakonzya kwaamba masimpe kujatikizya kaambo aka. Atalaabobo, inga mwaitwa alimwi kuti muzovuwe mibuzyo kumbele amazuba, pesi tacilangilwi kucitika. Kuyaambe, ndamuzibya kuti kulisanganya mu lwiiyo olu nkaambo kakuti mwalipa kakunyina akutambula cilicoonse. Abobo muliangulukidwe kutavuwu mibuzyo njomutakomene ayalo. Mwamana kuzumina kuti mubuzigwe mibuzyo, muliaagulukidwe kulekakuwuwa kufumbwa mpo mu yandila. Ikuti

musale kubweza lubazu, tamweelede ikukaala mu twaambo otu kusikila kumamanino ecitakwe noticine bubotu mbomunga mwajana mukulisanganya mubupampuobu bwa HPTN 071 kwalino.

Bubotu Alimwi Acilijazyo

Cakusanguna, taakwe cipego nchmumpa naanka mu mali ncomutitambule akaambo kakuti mwasangana mukuvuwa mibuzyo. Mukuvuwa mibuzyo eeyi, cilamugwasya kuziba twaambo tugumine kuli HPTN 071 antoomwe azintu zibelesegwa mubupampu obu akubona mbocinga ca gwasha mubukale bwesu. Ikuziba mayale akukwabana abikidwe omu mubupampu bwa HPTN 071, cilagwasya ndinwe nobabelesi kuti mu iye twaambo tupya atalaantomujisi kale kutegwa kukwabana alimwi akujana masimpe mumakani aanseba atoomwe amasena kuyaambele.

Mukujanika mubupampuobu, taakwe mutilicise kumyamananka mukuyeya., pesi inga mwaba akukatala nkaambo mubandi inga wainda maoolaa alembedwe nanka azumizidwe.

Maseseke

Toonse twaambo tujatikizya mubandi oyu tuyakubamaseseke esu. Ikutina mwazumizya, inga twa u recorder mubandi. Eci cilatugwasya mu kuyamazuba twa yanda kuti tuliyezye ncomwakambide mu mubandi. Mubandi oyu uyakwabanwa buyo aba habupampu mbulindiswe. Mukupa bwaambilizi na report twaakumana kulangaula zytuyanda, inga twakubelesya majwi/mabalaa anu kakwina kwaacinja kacitondezya abupanduluzi mubufwifwi, (mukozyanyo, 'bakazyiba mu kanyama bakusanguna 1'), alimwi munozibila ku number yamubandi (mukozyanyo, 'mubandi cisambomwe na 6') tatukabelesyi inzilai imwi iyakumuzyibya kubantu nakulindiswe. Twaakumana kuyandaula akujana zytuyanda, tuyakunyonyona imubandi waka rekodwa, kuyakucaala buyo mabbala alembedwe. Tuyakugusya mumubandi utirekodwe cibeela cilicoonse cinga capakuti mwazibwa kubaswilila. Kwamana mabala atikalembwe kuzwakumubandi ayakubikwa mu computer akubika password kutegwakuta bi utazumizidwe kubaala.

Kamuyeya kuti, natamuyandi kuvuwa mibuzyo ulionse, inga mwatwambila kutegwa ubuzya, aunke kumubuzyo uumbi. Alimwi, kutina cayandika kulindinwe, muliangulukide kuulekela akati mubandi kakwina mpanisi iliyoonse.

Kukwabana

Obubuhabupampu, bwazumizigwa a ba University of Zambia Biomedical Research Ethics Committee (**UNZABREC**) alimwi bwalombwa kumutabi Ulanganya makani aanseba mucisi muno. Ikuti namuyanda kubuzya nanka bupanduluzi bumwi kujatikizya bupampu obu, inga mwakwabana aba bahabupampu ba **Mulanda Joseph Mulawa** anambalaeyi, +260976075576 naanka email mulandajosephs@gmail.com, naape, inga mwatuma luwaile kulibeendelezi bakabungwe ka Universty of Zambia Biomedical Research Ethics Committee a +260211256067.

Appendix 4: Translated Informed Consent Form - Tonga

Mukusaina aansii, mebo _____, ndazumina kujanika mubuhupampu cakuyandisisya . ndakateelela kaambo kamakani aya ambocili ciyandisi cakumanakuzibwa. Ndilizyi mulawo undikwabilila ndatola lubazu alimwi ndilizyi cilijazyo cinga cajanika mubupampuobu.

Ku saina

Sikutola lubazu/ Dyomba munwe: _____ buzuba:

Kamboni / Dyomba munwe: _____ buzuba:

Appendix 5: Translated Participant Information Sheet - Chinyanja

Zaka fukufuku zake

Dzina langa ndine **Mulanda Joseph Mulawa**. Ndine mkulu wa zaumoyo wa master of Public Health (MPH) mpunzi wa pa sikulu yapamwamba yapa university ya mdziko lathu la Zambia kudera ya Ridgeway pansa pa ulamuliro la skulu za umoyo, kumbali yamene imilira za umoyo muma phunziro. Ndili kuyimirira pa khani za kafukufuku yam utu uyu; “pakugwirizana pakulingana mwamene tingagwerepa pa nkani ya ka cirombo ka HIV muzipatala zathu koyeselako”. Kulingana nakukuluka nimwamene tingachepetse bwanji ka cirombo aka ka kamene kamabwera motere ka (HPTN 071 PopART) mukafukufuku wa mu dziko la Zambia. Kafukufuku wanga nakhala kudala nambali zomwe zatsimikizidwa kale na sukulu ya pa mwamba yo chedwa university ya muno mwathu mu Zambia ya mankwala yakufukuza ya tumabungwe tula (UNZABREC). Kafukufuku ka HPTN 071 kayamba kale kuyesayesa mudela mwathu muno mu Zambia yokwanila madela khumi ndi mphambu (12) ziwiri mu Zambia muno. Komanso nakunja kwa dziko lathu ili ndi dziko la South Africa nako kuja atengako madela ingapo yokwanila asanu ndi anai (9). Kafukufuku uyu wa (HPTN 071) wakhali uli kuona mwamene tingacepetsele ka cirombo kamene ka itanidwa ndi dzina ili loti HIV katetezedure kake. Kulingana nimwamene azopima ndi kapoletse dule kake mumadela yosankhidwa.

Mu kafukufuku wanga colinga canga ndi cakuti nufuna ndione mugwilizano wamene ulikucitika mumadela kugwapo pa ka cirombo ka HIV mu zipatala pakuyesayesa. Pakuyesayesa mu kafukufuku wanga ndifuna kudziwa ngati mumadela monse muli mugwirizano pa nkani ya HPTN 071 yamene natengako mbali. Kodi ndani amene apanga uthenga uyu wamene usewenzetsedwa na ka bungwe ka zamaphunziro ndi kugwirizana komwe mucingerezi kachedwa Information Education and Communication materials. Kodi cholinga camene capangitsa kusankha ndi kapanga ca IEC uthenga wosewenzetsa kabungwe ka HPTN 071 kafukufuku. Nifunanso kudziwa ndi kumvetsetsa mumadela zomwe zikucitika pa nthawi ino pa kugwapo panjira ndiponso ndikufuna kumvetsetsa pa zolinga zao munjira yomwe tasewezetsa ya uthenga muphunziro ndi kugwirizana mu cingerezi wamene akuti IEC wamene wasewenzetsa HPTN 071 PopART mukafukufuku. Kafukufuku uyu colinga cake ndi cofuna kufunsa mwamene tingapangire ndi muremere tingachitire kulinga ndi zakuya zathu zo chedwa Zambia Aids Related Tuberculosis Project muncidule (ZAMBART). Kafukufuku ka PHTN 071 PopART kuimiliraka akulu akulu omwe osankidwa pa kafukufuku mumbili monga Lusaka komboni ya Kanyama naku Southern Province ku Livingstone kukomboni ya Malamba.

Zofunika Zomwe Zilimo

Mwafunsidwa kunkhala nafe panhani yakafukufuku cifukwa mwakhala amodzi otipatsa utenga uyu kulinga ndi mutu wake. Kuikirapo, munga ngaitanidwe kulingana ndi zomwe mwafunsidwa kupita kwa mutsogolo, koma ici ndico satsimikizilika. Koma pa ici ndifunanso kuku bweretsani pafupi kuti mumvetsetse kuti kugwapo ku iyi nkani ndi kozisankhira sitikakamiza munthu kugwapo koma yenkhayo afuna pa zakafukufuku uyu. Kuyikirapo cinangu ndimwe omasuka kusayanka funso yomwe simunakhutirenayo ngakhale kuti mwavomela kufunsidwa mafunso awa. Ndimwe omasuka kuimika/kapena kuletsa mafunso awa panthawi yomwe mufuna paliponse pomwe mungafune. Pakuonjezera munga khale kusagwapo kapena kusagwapo pakafukufuku komwe ticita. Mungasanke kugwapo pakafukufuku uyu kapena kuleka sitikamiza munthu aliyense kugwapo. Ngati musankha kugwapo simufunika kukhala nthawi yamene yazatsilizira mafunso yomwe tikufunsani ndimwe omasuka kukamba kuti sinifuna kupitiliza mafunso awa ise kukufunsani.

Kukoma kwake ndi kuipa

Coyamba, ndifuna kukuuzani kuti pankani yomwe tiku uzani palibe zamalipilo yali yonse. Pakugwapo pa kafukufuku uyu kufunika kumvetsetsana utenga wa IEC wamene tisewenzetsta mu HPTN 071 PopART momwe tikhala kuti tidziwe zomwe zitivuta pamugwirizano ndi kukonza malo yathu pakugwapo. Pakumvetsetsana pamugwirizano wamene tikhala tasebendzetsa mu HPTN 071 PopART mumalo mwanene tasankha kuti tipeleke utenga ndiku uyu ndimwamene tingakonzele kuti tipelekhe mugwirizano ndi kugwapo pazomwe zingapeleke kugwapo uku pakafukufuku watu uyu.

Pakutengako mbali wakafukufuku watu uyu, nacosa simikhizirika kuti muzankhala mulikuvutika pankani ya thupi yanu kumvela kuwawa kapena mukati mwathupi lanu kapena kumvela kulema ndi kupanigizika zomwe zingabwere pakufunsidwa mafunso kwanthawi yaithali yomwe tapangana.

Nkhani Iyi Izakhala Yacisinsi

Zinthu zonse zomwe mwagwapo pankhani iyi yakafukufuku zizakhala zobisika. Ngati mungalole tinga jambuleko zomwe takhufunsani. Zomwe zingatitandize kutsogolo kukumbukila zomwe munakamba. Tingagawane zolembe zathu ndi anthu amene ticita nawo zakafukufuku pamene tipelekha zakafukufuku wathu, tungasewentsetse mizele yomwe mwakamba. Ngati tasewenzetsa muzele modzi, vizaonekela kuzomwe mwa fotokoza

mwacisanzo (Kanyama resident 1) ndi codi yawo yamafunso mwacisanzo (interview 06). Sitizasewenzetsa utenga uli wonse wamene uzakudziwitsani imwe tikasiliza zocita zathu tizafuta zomwe takujambulani zinangu ndikuzisiya cabe zomwe tifuna. Tizatenga zojambulidwa zomwe ziku ziwitsani zautenga uyu. Ndipo zinangu zakujambulazi zizaikidwa muma password ndikutetezedwa muma komputala.

Pepani kumbukilani ngati simufuna kuyankha yanko iliyonse mungacite telo ndipo kufunsidwa kwanu kuzapita pafunso inango. Munga ganize kuletsa kufunsidwa kapena kucokamo mukafukufuku wathu wamene ticita nthawi iliyonse kopanda mavuto yaliyonse.

Mungatume

Kafukufuku uyu wasindikizidwa na sukulu yapamwamba ya University of Zambia Biomedical Research Ethics Committee (UNZABREC) cilolezedwe cacokela kuli nduna ya zaumoyo. Ngati mulinafunso olo kapena kukambapo mungatumile **Mulanda Joseph Mulawa** panambala iyi +260 976 075576 olo email: mulandajosephs@gmail.com, olo mwinanso, mungatumile kalembela wapa University of Zambia Biomedical Research Ethics Committee panambala iyi +260211256067.

Appendix 6: Translated Informed Consent Form - Chinyanja

Kumvelana kwakayena

Kusainidwa, ndine ndalola kutengako mbali yakafukufuku uyu mopanda cikakamizo. Ndine omvetsetsa colinga cakafukufuku uyu ndikufunikira ndizopezekamo zake. Ndiziwa zoimirira ine pakutengako mbali ndiponso ndiziwa kuipa ndi kukomakwake kwa uyu kafukufuku.

Wotengako mbali kusaina/zakuzala zake Tsiku

Mboni kusaina/zakuzala zake Tsiku

Appendix 7: Interview Guide for community Focus Group Discussion (Female and Male)

Purpose of the research

The purpose of this research is to help us understand the role that communication plays in enhancing community engagement in the HPTN 071 PopART study. My interest right now is to understand and know your experiences, views, submissions, and recommendations with regards the communication and engagement strategy used by the HPTN 071 PopART study. This may help to inform the programme implementers on how best to improve the current communication and engagement strategies currently being used in the study.

Discussion ground rules

To help me moderate the discussion, please know that we are all free to express our views in line with the questions asked and kindly know that there is no right or wrong answer in this discussion. To avoid misunderstandings and ensure free flow of the discussion, people are encouraged to speak through the facilitator. To ensure that we all express our views and opinions, we are advised to only talk after one person has finished talking so as not to interrupt their line of thought. Everyone should respect all views and opinions presented and hence no side discussions will be allowed. Kindly be informed that whatever we discuss here today will remain confidential and protected. All cellphones should be turned off to avoid any disturbances.

We would like to also remind you that participation in this study is free. Therefore, you are free not to answer any questions that you are not comfortable with and you are free to leave the group discussion should you feel uncomfortable. Please note that we shall be recording the interview so as to help us in the transcription and analysis process

{Turn on the recorders }

I am the facilitator interviewing FGD... .. Date.... Start time

	Main question	Probe
Knowledge about HPTN 071 PopART study		
i.	Kindly explain what you know about HPTN 071 PopART?	<ul style="list-style-type: none"> Kindly describe anything you know about the services being offered in HPTN 071 PopART? Do you know why you are part of the HPTN 071 PopART study? Explain why
Information, Education and Communication (IEC) in HPTN 071 PopART		
ii.	Could you please explain how you came to know about HPTN 071 PopART?	<ul style="list-style-type: none"> How did you know about HPTN 071 PopART? Who are the major sources of information about HPTN 071 PopART? Have you ever been engaged or involved in the development of any IEC materials used in HPTN 071 PopART?

		<ul style="list-style-type: none"> • Should communities in such a study be involved in developing IEC materials? Explain why. • What is your take on the current IEC materials being used in HPTN 071 PopART? • Is the information enough to motivate you to do what is been communicated? • Are the channels of communication appropriate? Are they easily accessible? • How about the messages in the IEC and mobilisation activities, do they conflict with any of your values and beliefs? If so, elaborate how? • Is the HPTN 071 PopART package better than what you know about HIV prevention? If so, elaborate how. • Do you have any recommendations of how the implementers can best engage the community in creating awareness about HPTN 071 PopART? • Is communication important in encouraging communities to take part in a clinical trial? • What sort of messages do you expect from IEC materials that should be used to motivate communities to take part in clinical trials? • What channels of communication should be used to encourage community engagement in studies like HPTN 071 PopART? • Is it easy to put into practice the information being given to you by HPTN 071 PopART?
Community Engagement in HPTN 071 PopART		

iii.	<p>Explain to us how you have been involved or engaged in the HPTN 071 PopART study.</p>	<ul style="list-style-type: none"> • Have you ever been engaged in any HPTN 071 PopART activity before the program started? • Have you ever been engaged in any HPTN 071 PopART activity after the program started? • How were you involved? • What was your experience? • Who are the most influential people, institutions within the community that can motivate communities to participate in HPTN 071 PopART? How can they be engaged? Explain what kind of influence they have in the community? Are they being engaged by the HPTN 071 PopART study? • What do you think about the current engagement and mobilization strategy used by HPTN 071 PopART? • How best can the community be engaged in the HPTN 071 PopART study by program implementers?
------	--	--

Appendix 8: Translated Interview Guide for community Focus Group Discussion- Tonga

Nkaambonzi kuyandaula oku

Oku kuyandaula kuyakutugwasha mulimo wakukwabana nchoubeleka mu kuswanganya maanda mu bupampu bwa HPTN 071 PopART. Kuyandisyisya kwangu lino nkwakutelela alimwi akuziba zyoumuzi, zyoumwaka bona alimwi akundipa kuyeya kwenu akaambo aka ka kukwabana kwamubukale aku tola lubazi mu makanze abelesyegwa mu HPTN 071 PopART. Eci cilagwasya abasikubeleka mulimo oyu mbo banga bautola aambe mukubelesya nzila ziliko lwiiyoolu.

Milawo iyamubandi ooyu

Mu kundigwasya mu mubandiooyu, amuzibe kuti muliaangulukide kulyaambilila mbomuyeya kweendelanya a mibuzyo ibuzigwa alimwi amuzibe kuti taakwe bwiinguzi bululeme nabutaluleme mumubandi. Kutaba akwiimpana, amuliibe mumubandi, ibantu baambilwa kukanana buyo kwiinda mu mweendelezi. Alimwi kutegwa nyoonse mukanane, mwaambilwa kuti aumwi akanane ciindi cakwe casika mweenzinyina wamana kwaambaula. Tuswaangano tusyoonto tatuzumizidwe. Amuzibe kuti zyoonse ziti bandikwe, zilacaala maseseke kulindinwe ndime. Toonse tunjaka amutuzime kubule notutinyongane.

Tuyanda kumuyeezya kuti, kulisanganya kwenu mu kuyandaula oku muliaangulukidwe. Abobo mutavuwu mibuzyo njomutakomene anjiyo. Alimwi, mulaangulukide kuleka mubandi ooyu kufumbwa mpomuyandila. Akaka amuzibe kuti oyu mubandi uyakurekodwa mukanjaka kutegwa cikatugwashilizye kulemba akubaala zyoumwaali kwaamba.

{Turn on the recorders }

Ndime weendelzya mubandi ooyu... .. buzuba.....Ciindi cakatalika.....

	Mubuzyowini	Kubuzya mubwini
Luzibo lujatikizya HPTN 071 PopART		
i.	Kamupandulula mbomuzyi kujatikizya HPTN 071 PopART?	<ul style="list-style-type: none"> • Amupandulule lugwasyo lupegwa muli HPTN 071 PopART? • Hena ulizyi ncomwa tola lubazu muHPTN 071 PopART? Pandulula ino kai?
makani, Lwiiyo alimwi akukwabana (IEC) muHPTN 071 PopART		
ii.	Kamupandulula mbomwakaziba makani aHPTN 071 PopART?	<ul style="list-style-type: none"> • Mwakaziba buti makani aHPTN 071 PopART? • Nkuuli kwiini nkomwaka gusya luzibo lwa HPTN 071 PopART? • Hena mwaka tola kale lubazu mukubamba mabbuku abeleka muHPTN 071 PopART? • Hene maandaali mu bupampu obu alelede kusangana mukubamba mabbuku aya nazibelesyo alimwi kamupandulula ino nkaambonzi. • Muyeyabuti a zibelesyo zibeleda kwalino mu HPTN 071 PopART?

		<ul style="list-style-type: none"> • Hena luzibo ndunji ku mu komanisya mukukwabana? • Hena nzila zyakukwabana zilelede? Hena zilajanika kufumbwa? • Hena milumbe ijanika mu IEC alimwi anzila zynomubunganya bantu zileendelana na azyomushoma nanka bulemu bwanu? Na mbombubo, kamupandulula? • Hena lwiiyo lujanika mu HPTN ndubotuna kwiinda mukukwabilila sikalileke. Ikuti naa kulainda, amupe bupanduluzi. • Ambweni kuli bumbi mbomuyeeyela kuti beendelezi ba pulogilamu eeyi babona kuti bantu boonse batola lubazu mukusensemuna banamaleya luziyibo lwa HPTN 071 PopART? • Hena bwambilizi bulakozya kugwashilila kukulwaizya banamaleya kuti batole lubazu mukusola busilisi oobu? • Hena milumbe nzi njomuyeeyela kuzwa ku IEC azyibelesho zyelede kubeleshegwa kukulwaizya bantu kuti batole lubazu mukusoleka busilisi oobu? • Hena ninzila nzi zya bwambilizi zyinga zyabeleshegwa kukulwaizya bantu mulwiiyo mbuli lwa HPTN 071 PopART? • Hena ncubauba kucita mubwini lwiiyo ndomujana ku HPTN 071 PopART?
<p>Kutola lubazu lwa basimunzi mu HPTN 071 PopART</p>		

iii.	<p>Ampandulule kulindiswe na mwakatola kale lubazu mu lwiiyo lwa HPTN 071 PopART.</p>	<ul style="list-style-type: none"> • Hena mwakatolakale lubazu mumayale iya HPTN 071 PopART kaitananga talika pulogilamu eyi? • Hena mwaka sanganyizigwa kale mumayale iya HPTN 071 PopART kaitalikide kale pulogilamu eyi? • Hena ndubazu nzii ndomwa sanganyizigwa? • Hena nchinzi nchomwaiya? • Hena mbani ibantu na ma institutions ibakozya kukwelelezya basimunzi ikutegwa abalo bacikonzye kusangana mumayale iya HPTN 071 PopART? Hena inga basanganizigwa buti mupulogilamu eyi? Pandulula bukwelelezi ndobajisi kulibasimunzi? Hena ingabalasanganizigwa mumayale alwiiyo ilwa HPTN 071 PopART ? • Hena muyeya buti kumakani akusanganizigwa akubungabunga kubelesegwa ambunga iya HPTN 071 PopART? • Hena muzezonzii ulikabotu ukozya kubelesegwa kusanganya basiminzi kulibabo basikwendelezya imayale iya HPTN 071 PopART?
------	---	--

Appendix 9: Translated Interview Guide for community Focus Group Discussion – Chinyanja

Colinga ca kafukufuku uyu

Colinga ca kafukufuku uyu ndi cothandiza nchito ya mvetsetsa ya njira yakugwirizana zinthu zomwe zikhuzana na mumadela mwathu pankha ya HPTN 071 PopART kafukufuku wake. Comwe ndifuna kuziwa lombani ndi cakumvetsetsa zomwe mudziwa, zomwe muzaikapo, zomwe muzacotsapo ndi zomwe mukamba kapena kuthirapo ndemanga kulinga ndi zomwe zoimirira za HPTN 071 PopART kafukufuku wake. Ici cingathandize kuuza zinthu zomwe zingaidwe mwamene tingapititsire kugwirizana komwe kuliko ndi kugwapo panjira zomwe ziliko zamene zisewenzesedwa pa nkhani yakafukufuku.

Zokambilana ndi malamulo yake

Kunithandiza ine kukhazikitsa pakati ndi pakati zokambilana. Nkhalani wodziwa kuti ndi mwe omasuka ifenso ndife omasuka kukamba zilizonse kutifunsa manso kapena ise ukufunsani mafunso ndi zomwe munganiza. Dziwansonikuti kulibe yankho yabwino kapena yoipa muku kambilana khwatu uku. Kucotsako zaku samvetsana tinkhala nampata wolekera wina ndi munzake kukamba pamene wina akalibe kuyamba kulankhula. Anthu amakhalanso azipeleka kukamba kupyolera omwe angafune. Tifunika kunkhala odziwa kuti tikamba zomwe tilinazo ndi zimwe tiganiza. Tifunika kunkhala wodziwa ngati wina alankhula sitifunika kukamba pomwe munzhatu akalibe kutsiliza kukamba pakuyopa kusamvetsana kuganiza kwawina ndi mzace. Ulemu ufunika kwa munthu aliyense kumaganizo yomwe wakamba munzake ndi zomwe waikapo muzoganiza zake. Paizo kulibenso kunkhala za kumbali zokambapo kapena zokambilana kuyembekezela kukambapo. Nkhalani odziwa kuti zokambilana zathu zalero zizakhala zobisika ndiponso zotetezedwa. Malamulo yonse yazankhala yozidwa pambuyo poyopa musokonezo pakulira kwa foni kapena lamya yanga kapena yanu.

Tifuna kukumbatsani/kunkala okumbikira kugwapo mwakafukufuku uyu kapena kutengako mbali ndi kwa makalukulibe malipilo yalionse. Kucoka apo ndimwe omasuka ku sayankha yomwe simulinayo yokuthulisidwa kuyanka mulinayo dangalocita tero ndiponso ndimwe omasuka kuleka kapena kucokapo kupanda bvuto ina iliyonse pamwe mwamvela kuipa. Nkhalani wodziwa kuti tizajambula mau anu pomwe tili kukambirana pazakafukufuku wathu uyu.

(Kayasha zojambulira mau)

Ndine waimirila ku zofunsa za FGD Tsiku
 nthawi

	Funso lenileni	Probe
Kudziwa pankani ya HPTN 071 PopART kafukufuku wofufuza		
iv.	Tifokotozereni zomwe mudziwa pa nkhani ya HPTN 071 PopART?	<ul style="list-style-type: none"> • Tanthauzirani zomwe mudziwa nchito zomwe zimapelekedwa paka bungwe ka HPTN 071 PopART? • Kodi muziwa cifukwa ciani mwapezekamo munkhani iyi ya HPTN 071 PopART? Tifotokozereni ndi cifukwaninji?
Utenga waphunziro wakugwirina womwe mcingerezi akuti Information, Education and Communication (IEC) mu HPTN 071 PopART		
v.	Kodi mungatiuzeko momwe munadziwira kabungwe aka ko chedula HPTN 071 PopART?	<ul style="list-style-type: none"> • Kodi munaidziwa bwanji HPTN 071 PopART? • Ndani akulu akula a HPTN 071 PopART? • Kodi munadakhala mukugwapo kapena kuziyimo mu citikuko ca IEC camene cisewenzetsedwa ndi kabungwe aka ka HPTN 071 PopART kucitikuko cake? • Kodi mukuona kwa imwe mumalo omwe mukhala mukuonakuti ali kutengako mbali? Tifotokozereni cifukwa ndi ciani. • Kodi uthenga wotani womwe uliko munga tiuze wa IEC materials wamene usewenzetsedwa nakabungwe aka ka HPTN 071 PopART? • Kodi utenga uyu mukuona kuti ndio khutiritsidwa ndiponso okondweletsani imwe pa zomwe zicitika munjira yakugwirizana? • Kodi njira zogwirizana zi mankhala zabwino? Kodizili zapafupi kuzikonka/kulondola? • Kodi unakhala uthenga wa IEC unakhala uligwirizana nazo bwanji zocitika, kodi kunali zobvuta zomwe anthu amadali/kukhulipira zamiyombo ndizina zatero? Ngati zinaliko tiuzeni zinali bwanji? • Kodi za HPTN 071 PopART zomwe zina onkhetsedwa kupapambana zomwe mudziwa za kuteteza kula HIV? Ngati zitero tiuzeni munjira yomwe mudziwa • Kodi muli ndi mfundo kapena ndemanga zokapo mwamne tingaikirepo zina pa kuwapunzitsa pa ubwino wa HPTN 071 PopART? • Kodi kugwirizana/ kuthandizana ndikofunikira kuuza anthu mumalo momwe tinkhala kutengako mbali muzipatala zathu? • Kodi ndi uthenga otani omwe mungaganizire kupezeka muzolembedwa za IEC zimene zingakondweretse anthu kutengamo mbali kuli izi zomwe takamba mumalo okhalamokuzipatala?

		<ul style="list-style-type: none"> • Kodi ndi njira zabwanji zomwe zingalengetse mumalo mwathu momwe tikhala kulimbikitsa anthu kugwapo ku mbali yakafukufuku ya HPTN 071 PopART? • Kodi ndi capafupi kulondola ndondomeko zake zauthenga kuulondola omwe upatsidwa ndi HPTN 071 PopART?
kugwapo kwa malo ya anthu okhalamo mu HPTN 071 PopART		
iii.	Tifotokozeleni ife mmene munangeneramo mu HPTN 071 PopART mukafukufuku wake	<ul style="list-style-type: none"> • kodi mukhala ozipezamo mu zakafukufuku wa HPTN 071 PopART zocitika zake pambuyo izi zikalibe kuyamba? • Kodi mukhala ogwapo muzakafukufuku uyu pamene ise tisanayamba kwina kulikonse wa HPTN 071 PopART? • Kodi munazipezamo bwanji? • Kodi zomwe munaphinzira kapena kudziwa zinali zabwanji? • Kodi anthu anali okukondweretsani anali yani? Kodi anali madela akuluakulu omirira malo omwe mukhalamo kodi angakondweretse madela anu kelengetsa kugwapo ku mbali HPTN 071 PopART? Kodi angagwepo bwanji? Tifotokozereni kapena kumasulira mwamene madela okhalamo angatengekele? Kodi akali otengako mbali mu bungwe ili ya HPTN 071 PopART mukafukufuku wake? • Kodi muganizapo ciani zomwe zilikucitika zukugwapo ndiku zonkanitsa njira za HPTN 071 PopART? • Ndi njira bwanji zabwino mumadela mwathu zomwe zingalengetse antu kugwapo ndi zomwe zingaidwe mu bungwe ili ya HPTN 071 PopART mukafukufuku wake?

Appendix 10: Interview Guide for community Focus Group Discussion with Community Advisory Board (CABs)

Purpose of the research

The purpose of this research is to help us understand the role that communication plays in enhancing community engagement in the HPTN 071 PopART study. My interest right now is to understand and know your experiences, views, submissions, and recommendations with regards the communication and engagement strategy used by the HPTN 071 PopART study. This may help to inform the programme implementers on how best to improve the current communication and engagement strategies currently being used in the study.

Discussion ground rules

To help me moderate the discussion, please know that we are all free to express our views in line with the questions asked and kindly know that there is no right or wrong answer in this discussion. To avoid misunderstandings and ensure free flow of the discussion, people are encouraged to speak through the facilitator. To ensure that we all express our views and opinions, we are advised to only talk after one person has finished talking so as not to interrupt their line of thought. Everyone should respect all views and opinions presented and hence no side discussions will be allowed. Kindly be informed that whatever we discuss here today will remain confidential and protected. All cellphones should be turned off to avoid any disturbances.

We would like to also remind you that participation in this study is free. Therefore, you are free not to answer any questions that you are not comfortable with and you are free to leave the group discussion should you feel uncomfortable. Please note that we shall be recording the interview so as to help us in the transcription and analysis process

{Turn on the recorders }

I am the facilitator interviewing FGD... .. Date.... Start time

	Main	Probe
Development of IEC in HPTN 071 PopART		
vi.	I would like to know your opinions and contribution towards IEC development in HPTN 071 PopART.	<ul style="list-style-type: none"> • Are you ever consulted on IEC development process? • If so, what is your contribution to the process? • What type of IEC materials are used in HPTN 071 PopART? • Why do you think these were selected and are they working as intended? • Are the current IEC materials adequate to encourage community engagement in HPTN 071 PopART? • Do you have problems in explaining some of the messages used through IEC to community members? • Are the IEC easily accessible to community members? • Are you ever involved in IEC material development? If no, why? If yes, at what level are they engaged? What

		<p>is your contribution to the development of IEC materials?</p> <ul style="list-style-type: none"> • If consulted or engaged, are your views ever taken into consideration? • In your opinion, what can be improved upon in the current IEC choice and development?
Community Engagement Strategy in HPTN 071 PopART		
vii.	<p>I would like to know your experiences in working with the community in HPTN 071 PopART, challenges and opportunities.</p>	<ul style="list-style-type: none"> • What role do you play in HPTN 071 PopART as CABs? • How are CABs members selected into the board? • How closely do you work with Head Office and also the District office, including the communities you represent? • What are some of the challenges that you face when working with communities and also head office? • Does the current engagement strategy help you undertake your work with the community in the field? • What are some of your experiences in working with the community in HPTN 071 PopART and head office? • With regards IEC materials, do IEC materials impact your ability to do your work? If so, how? • Are the current IEC materials effective in encouraging community engagement and participation in HPTN 071 PopART? • If yes, elaborate how. • What are some of the messages that can be added to the current IEC materials to improve participation and engagement in HPTN 071 PopART? • What types of IEC materials should be used, what type of language should be used? • Are the messages in these IEC materials appropriate to the communities' culture and values? • What do you think of the current communication and engagement strategies used in HPTN 071 PopART, what can be improved upon?

Appendix 11: Appendix K: FGD Guide for Intervention Field Staff

Purpose of the research

The purpose of this research is to help us understand the role that communication plays in enhancing community engagement in the HPTN 071 PopART study. My interest right now is to understand and know your experiences, views, submissions, and recommendations with regards the communication and engagement strategy used by the HPTN 071 PopART study. This may help to inform the programme implementers on how best to improve the current communication and engagement strategies currently being used in the study.

Discussion ground rules

To help me moderate the discussion, please know that we are all free to express our views in line with the questions asked and kindly know that there is no right or wrong answer in this discussion. To avoid misunderstandings and ensure free flow of the discussion, people are encouraged to speak through the facilitator. To ensure that we all express our views and opinions, we are advised to only talk after one person has finished talking so as not to interrupt their line of thought. Everyone should respect all views and opinions presented and hence no side discussions will be allowed. Kindly be informed that whatever we discuss here today will remain confidential and protected. All cellphones should be turned off to avoid any disturbances.

We would like to also remind you that participation in this study is free. Therefore, you are free not to answer any questions that you are not comfortable with and you are free to leave the group discussion should you feel uncomfortable. Please note that we shall be recording the interview so as to help us in the transcription and analysis process

{Turn on the recorders }

I am the facilitator interviewing FGD... .. Date.... Start time

	Main	Probe
Development of IEC in HPTN 071 PopART		
i.	I would like to know your opinions and contribution towards IEC development in HPTN 071 PopART.	<ul style="list-style-type: none"> • Are you ever consulted on IEC development process? • What type of IEC materials are used in HPTN 071 PopART? • Why do you think these were selected and are they working as intended? • Are the current IEC materials adequate to encourage community engagement in HPTN 071 PopART? • Do you have problems in explaining some of the messages

		<p>used through IEC to community members?</p> <ul style="list-style-type: none"> • Are the IEC easily accessible to community members and you as front line staff? • Are you ever involved in IEC material development? If no, why? If yes, at what level are they engaged? What is your contribution to the development of IEC materials? • If consulted or engaged, are your views ever taken into consideration? • In your opinion, what can be improved upon in the current IEC choice and development? • What communication challenges do you face as Intervention field staff in undertaking your community duties?
--	--	--

Community Engagement Strategy in HPTN 071 PopART

<p>ii.</p>	<p>I would like to know your experiences in working with the community in HPTN 071 PopART, challenges and opportunities.</p>	<ul style="list-style-type: none"> • What is your role as a frontline staff in HPTN 071 PopART? • How closely do you work with communities? • What are some of the challenges that you face when working with communities in the field? • Does the current engagement strategy help you undertake your work with the community in the field? • What are some of your experiences in working with the community in HPTN 071 PopART? • With regards IEC materials, do IEC materials impact your ability to do your work? If so, how? • Are the current IEC materials effective in encouraging community engagement and participation in HPTN 071 PopART? • If yes, elaborate how.
------------	--	---

		<ul style="list-style-type: none">• What are some of the messages that can be added to the current IEC materials to improve participation and engagement in HPTN 071 PopART?• What types of IEC materials should be used, what type of language should be used?• What do you think of the current communication and engagement strategies used in HPTN 071 PopART, what can be improved upon?
--	--	---

Appendix 12: Key Informant Interview Guide for District Intervention officer and Community Engagement Field Staff

Purpose of the research

Thank you for agreeing to do this interview. As introduced in the information sheet, my name is **Mulanda Joseph Mulawa**. The purpose of this research is to help us understand the role that communication plays in enhancing community engagement in the HPTN 071 PopART study. My interest right now is to understand and know how various IEC materials are developed and delivered in the HPTN 071 PopART study. Further information on the current communication and community engagement strategies will be sought from you as this is also the aim of the study. We therefore, seek your experiences, views, submissions and recommendations on the current community engagement and communication strategies used in HPTN 071 PopART. This may help to inform the program implementers on how best to improve the current communication and engagement strategies currently being used in the study.

Discussion ground rules

The interview will take between 30 minutes to 1 hour. We request that you answer the questions truthfully and to the best of your knowledge. You are also at liberty not to answer any question you are not conformable with. Please note that we shall be recording the interview so as to help us in the transcription and analysis process. . Kindly be informed that whatever we discuss here today will remain confidential and protected.

Do you have any questions before we start?

[Turn on the recorders]

I am the interviewer, interviewing KII Date..... Start time

Background Information (kindly fill in the information below)

Sex:

Position:

Time working in current position.

Age at last birthday :

1. **Development of IEC in HPTN 071 PopART:** I would like to know your opinions and contribution towards IEC development in HPTN 071 PopART.

Probes

- Are you ever consulted on IEC development process?
- What type of IEC materials are used in HPTN 071 PopART?
- Why do you think these were selected and are they working as intended?
- Are the current IEC materials adequate to encourage community engagement in HPTN 071 PopART?

- Do you have problems in explaining some of the messages used through IEC to community members?
- How do you disseminate information to the communities?
- Are the IEC easily accessible to community members and you as front line staff?
- Are you ever involved in IEC material development? If no, why? If yes, at what level are they engaged? What is your contribution to the development of IEC materials?
- If consulted or engaged, are your views ever taken into consideration?
- In your opinion, what can be improved upon in the current IEC choice and development?
- What communication challenges do you face as Intervention field staff in undertaking your community duties?

2. **Community Engagement Strategy in HPTN 071 PopART** : I would like to know your experiences in working with the community in HPTN 071 PopART, challenges and opportunities.

Probes

- What is your role as a frontline staff in HPTN 071 PopART?
- How closely do you work with communities?
- What are some of the challenges that you face when working with communities in the field?
- Does the current engagement strategy help you undertake your work with the community in the field?
- What are some of your experiences in working with the community in HPTN 071 PopART?
- With regards IEC materials, do IEC materials impact your ability to do your work? If so, how?
- Are the current IEC materials effective in encouraging community engagement and participation in HPTN 071 PopART?
- If yes, elaborate how.
- What are some of the messages that can be added to the current IEC materials to improve participation and engagement in HPTN 071 PopART?
- What types of IEC materials should be used, what type of language should be used?
- What do you think of the current communication and engagement strategies used in HPTN 071 PopART, what can be improved upon?

Appendix 13: Key Informant Interview Guide for Head Office Staff

Purpose of the research

Thank you for agreeing to do this interview. As introduced in the information sheet, my name is **Mulanda Joseph Mulawa**. The purpose of this research is to help us understand the role that communication plays in enhancing community engagement in the HPTN 071 PopART study. My interest right now is to understand and know how various IEC materials are developed and delivered in the HPTN 071 PopART study. Further information on the current communication and community engagement strategies will be sought from you as this is also the aim of the study. We therefore, seek your experiences, views, submissions and recommendations on the current community engagement and communication strategies used in HPTN 071 PopART. This may help to inform the program implementers on how best to improve the current communication and engagement strategies currently being used in the study.

Discussion ground rules

The interview will take between 30 minutes to 1 hour. We request that you answer the questions truthfully and to the best of your knowledge. You are also at liberty not to answer any question you are not comfortable with. Please note that we shall be recording the interview so as to help us in the transcription and analysis process. . Kindly be informed that whatever we discuss here today will remain confidential and protected.

Do you have any questions before we start?

[Turn on the recorders]

I am the interviewer, interviewing KII Date..... Start time

Background Information (kindly fill in the information below)

Sex:

Position:

.....
.....

Time working in current position.

Age at last birthday :

1. **IEC DEVELOPMENT:** I would like to know the process used in developing IEC materials used in HPTN 071 PopART

Probes:

- What process is used to develop IEC materials?
- What type of IEC materials are used in HPTN 071 PopART?
- Why were these chosen over others?

- Who is involved in developing IEC materials?
 - What criteria is used to select the said IEC developers?
 - What communication principles are used in IEC material development?
 - Is the information been disseminated to the community compatible with the existing norms and values of the communities? How do you ensure that this is done?
 - What unique selling point do you use in packaging your messages to the community to bring about involvement and participation?
 - Are the community involved in IEC material development? If no, why? If yes, at what level are they engaged? What is their contribution to the development of IEC materials? What is the reason behind involving them in the development of IEC materials.
 - What are the challenges faced in IEC material development and dissemination?
 - Do you think these IEC materials are effective in engaging people to take part in HPTN 071 PopART and motivate them to stay in the study?
 - In your opinion, what can be improved upon in the current IEC choice and development?
2. **COMMUNITY ENGAGEMENT:** What community engagement strategy is used in HPTN 071 PopART and how does communication help in encouraging communities to take part in HPTN 071 PopART?
- What is the current community engagement strategy used in HPTN 071 PopART?
 - How was the strategy developed?
 - How are the community engaged by HPTN 071 PopART?
 - What are the successes in community engagement in HPTN 071 PopART?
 - What are some of the challenges been faced in engaging communities to be in HPTN 071 PopART?
 - How is the current community participation in HPTN 071 PopART?
 - What do you think is the role of communication in encouraging people to take part in HPTN 071 PopART?
 - What recommendations can you make to improve the current community engagement strategies in HPTN 071 PopART?

Appendix 14: Key Informant Interview Guide for Community Opinion Leaders

Purpose of the research

Thank you for agreeing to do this interview. As introduced in the information sheet, my name is **Mulanda Joseph Mulawa**. The purpose of this research is to help us understand the role that communication plays in enhancing community engagement in the HPTN 071 PopART study. My interest right now is to understand and know how various IEC materials are developed and delivered in the HPTN 071 PopART study. Further information on the current communication and community engagement strategies will be sought from you as this is also the aim of the study. We therefore, seek your experiences, views, submissions and recommendations on the current community engagement and communication strategies used in HPTN 071 PopART. This may help to inform the program implementers on how best to improve the current communication and engagement strategies currently being used in the study.

Discussion ground rules

The interview will take between 30 minutes to 1 hour. We request that you answer the questions truthfully and to the best of your knowledge. You are also at liberty not to answer any question you are not comfortable with. Please note that we shall be recording the interview so as to help us in the transcription and analysis process. . Kindly be informed that whatever we discuss here today will remain confidential and protected.

Do you have any questions before we start?

[Turn on the recorders]

I am the interviewer, interviewing KII Date..... Start time

Background Information (kindly fill in the information below)

Sex:

Position:

Time working in current position.

Age at last birthday :

1. As an opinion leader, what is your role in HPTN 071 PopART?

Probes:

- How familiar are you with the HPTN 071 PopART study?
- What are some of the services being offered in the study?
- How closely do you work with the community?

2. Tell us a bit about what kind of information the community seek from you?

Probes:

- In line with HIV, do community ever asked you to give them information about HIV?
If so, what are the most frequent questions that people ask?
 - Do people ever ask you to provide them with information on HPTN 071 PopART?
 - What are the most frequent questions people ask?
 - Being an opinion leader, would you be able to tell us what type of questions are mostly asked by the young and old?
 - Is the information about HPTN 071 PopART compatible with the existing community norms and values? Elaborate?
 - Do you think the information is effective in engaging people to take part in HPTN 071 PopART and motivate them to stay in the study?
 - In your opinion, what can be improved upon in the current IEC choice and development?
3. **COMMUNITY ENGAGEMENT:** How best do you think people in this community can be motivated to take part in a large study like HPTN 071 PopART?
- What criteria should be followed to select community representatives?
 - In terms of HPTN 071 PopART, how was your community engaged in the study?
 - What are the successes in community engagement in HPTN 071 PopART?
 - What challenges were faced during the engagement process? In the near future, how can such challenges be avoided?
 - What do you think is the role of communication in encouraging people to take part in HPTN 071 PopART?
 - What recommendations can you make to improve the current community engagement strategies in HPTN 071 PopART?