

Evaluation of the effect of Adolescent and Youth Friendly Services implementation on HIV testing uptake among youth (aged 15 – 24 years) in health facilities of Amathole District, Eastern Cape

Student Name: Gcobisa Geza

Student Number: 2211256

Type of Thesis: Mini-thesis

Degree: Master in Public Health

Department/School: School of Public Health, University of the Western Cape

Supervisor: Dr. Martina Lembani

Co-Supervisor (if any):

Date: 13 March 2020



UNIVERSITY *of the*
WESTERN CAPE

KEYWORDS

AYFS implementation

HIV testing

Amathole district

Determinants of HIV testing

Evaluation

Health facilities

National Adolescent Friendly Clinic Initiative

Young people

Youth-focused interventions

Youth Friendly Services




DECLARATION

I declare that this mini-thesis titled “*Evaluation of the effect of Adolescent and Youth Friendly Services implementation on HIV testing uptake among youth (aged 15 – 24 years) in health facilities of Amathole District, Eastern Cape*” is my own work. It has not been submitted for any degree or examination in any other university and all the references used or quoted here-in have been acknowledged.

Full name: Gcobisa Geza

Date: 13 March 2020

Signed: 



UNIVERSITY *of the*
WESTERN CAPE

GLOSSARY OF ACRONYMS AND ABBREVIATIONS

AYFS Adolescent and Youth Friendly Services

DHIS District Health Information System

DoH Department of Health

HCT HIV Counselling and Testing

HIV Human Immunodeficiency Virus

HTS HIV Testing Services

NAFCI National Adolescent Friendly Clinic Initiative

NGO Non-Governmental Organisation

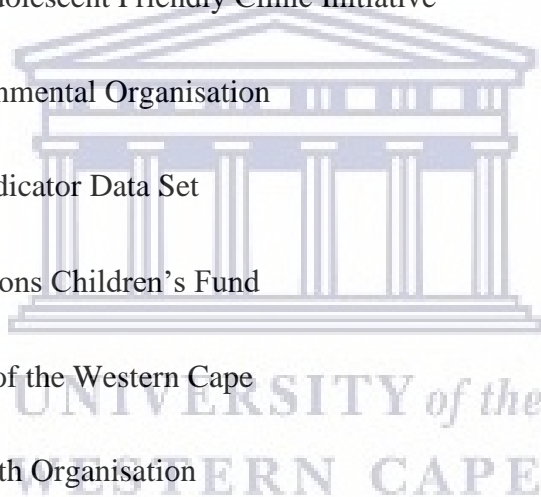
NIDS National Indicator Data Set

UNICEF United Nations Children's Fund

UWC University of the Western Cape

WHO World Health Organisation

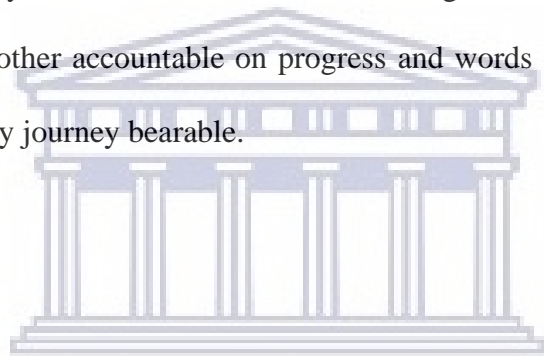
YFS Youth Friendly Services



ACKNOWLEDGEMENTS

A special word of appreciation goes to my Supervisor Dr Martina Lembani for her guidance, support and constant encouragement from the inception of this study up to putting this mini-thesis together. To my mother (Thembeke Geza) and my domestic helper (Nokuphiwa Qompoyi) - thank you for stepping in for me in parenting my sons when I needed extra time to meet my studies deadlines. Thank you to all Amathole Health District colleagues (at district, sub-district and facility levels) for providing information as best as they could for the study.

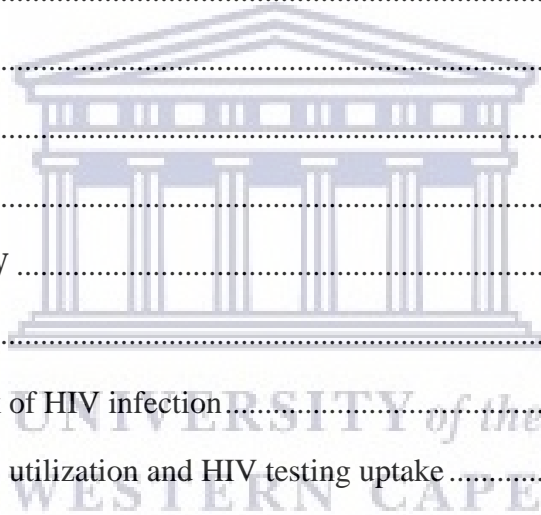
To my fiancé (Mr Simpiwe Myataza) for constant encouragement and reassurance when the pressures of juggling family, work and school were mounting. Finally, the MPH class intake of 2016 for holding each other accountable on progress and words of encouragement – you made this potentially lonely journey bearable.



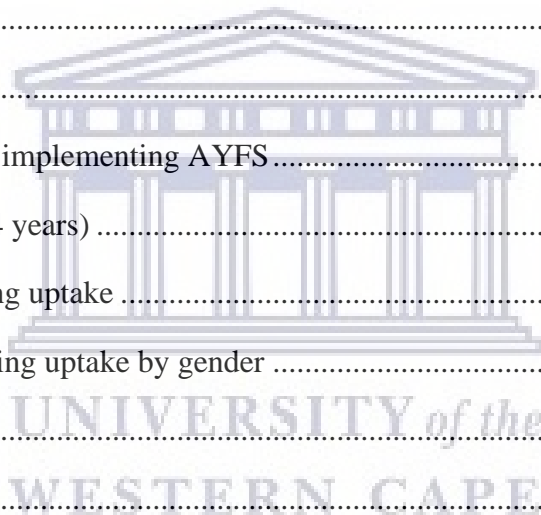
UNIVERSITY *of the*
WESTERN CAPE

TABLE OF CONTENTS

KEYWORDS	i
DECLARATION	ii
GLOSSARY OF ACRONYMS AND ABBREVIATIONS	iii
ACKNOWLEDGEMENTS	iv
ABSTRACT	vii
Chapter 1	1
ORIENTATION	1
1.1 Introduction.....	1
1.2 Problem statement.....	3
1.3 Purpose of the study.....	4
1.7 Summary.....	4
Chapter 2	6
LITERATURE REVIEW	6
2.1 Introduction.....	6
2.2 Factors underlying risk of HIV infection.....	6
2.3 Determinants of AYFS utilization and HIV testing uptake	7
2.3 Barriers to AYFS utilization and HIV testing uptake.....	8
2.4 Youth’s experiences when accessing AYFS.....	10
2.5 UNAIDS 90-90-90 strategy among youth	10
2.6 Summary	11
Chapter 3	12
RESEARCH DESIGN AND METHODOLOGY	12
3.1 Introduction.....	12
3.2 Aims and Objectives	12
3.3 Hypothesis.....	12
3.4 Methodology	12



3.4.1 Setting.....	13
3.4.2 Study Design	13
3.4.3 Population and sampling	14
3.4.4 Data Collection	15
3.4.5 Data analysis.....	16
<i>Outcome Variable</i>	16
<i>Exposure Variable</i>	17
3.4.6 Rigor.....	18
3.4.7 Validity and Reliability.....	18
3.4.8 Ethics Considerations	18
3.5 Summary	19
Chapter 4	20
RESULTS	20
4.1 Introduction.....	20
4.2 Proportion of facilities implementing AYFS	20
4.3 HIV testing rate (15-24 years)	21
4.4. 15-24 years HIV testing uptake	22
4.4.2 15-24 years HIV testing uptake by gender	24
Chapter 5	25
DISCUSSION	25
5.1 Introduction.....	25
5.2 Discussion of findings.....	25
5.3 Limitations	27
5.4 Summary	28
Chapter 6	29
CONCLUSION AND RECOMMENDATIONS	29
6.1 Conclusion	29
6.2 Recommendations.....	29
6.3 Recommendations for further research.....	30
References	31



ABSTRACT

Human Immunodeficiency Virus (HIV) prevalence and new infections rate among young people in Southern Africa is high despite various programmes implemented to address general population prevention and treatment. The youth has a low HIV testing uptake even though there seems to be high HIV prevalence among this age population group.

Youth focused interventions have proven to be a success in encouraging young people to have an HIV test done as part of improved health-seeking behaviours. In South Africa, such an intervention was initially implemented by LoveLife and later adopted in 2006 by the government as Adolescent and Youth Friendly Services (AYFS) for a larger-scale implementation in Primary Health Care facilities as a strategy to improve youth Sexual and Reproductive Health.

The study was conducted in Amathole Health District of the Eastern Cape, where a time-series study was done to evaluate the effect of AYFS on HIV testing uptake among youth between 15 – 24 years using routine data from facility HIV Testing Services (HTS) registers. The data was collated and analysed for this study using Microsoft Excel.

The studied facilities reported youth HIV test uptake rates which are lower than the Eastern Cape provincial 37%, Amathole district 60% and the 1st 90 of the UNAIDS strategy. This is an indication that the youth has not been adequately reached as intended when expansion of the NAFCI programme was adopted by the government.

Chapter 1

ORIENTATION

1.1 Introduction

The World Health Organisation (WHO) defines youth as the population between ages 15 to 24 years. The South African Constitution includes the population up to 35 years of age as youth, however the Department of Health (DoH) focuses on the WHO age specification because this age group has the highest risk of experiencing ill-health due to behaviours and choices they make (CHIVA South Africa, 2017). HIV Counselling and Testing (HCT) has been identified as one of the behavioural change strategies for HIV risk reduction (UNAIDS, 2010). Age-appropriate interventions receive better response from young people as it has been shown that targeted counselling was effective in behavioural change (AVERT, 2017).

South Africa's high levels of HIV transmission continue posing challenges for young people as well as the health sector (Hodes *et al.*, 2015). According to the National Youth Policy Report, it is estimated that 16% of South Africans between the ages of 15 - 49 years are living with HIV, more than half (9%) of these are between the ages of 15 - 24 years (The Presidency Republic of South Africa, 2015). It has also been reported that 60% of new HIV infections are among young people of ages between 15 and 25 years (Mabitsela, nd). South Africa has also shown an average increase in HIV testing coverage from 26% in year 2013/14 to 34% in year 2015/16 among the general targeted population between ages 15 – 49 years (Massyn *et al.*, 2016).

Data released in the United Nations Children's Fund (UNICEF) report in December 2016 indicates that only 24% of young people in the Sub-Saharan Africa who had an HIV test received their results in the past 12 months at the time of update (UNICEF, 2016). A study conducted in Soweto among adolescents 15-24 years revealed that 45% reported to have ever

had an HIV test (Miller *et al.*, 2017). To address these challenges, LoveLife as one of the Non-Governmental Organisation (NGO) partners to the government developed an initiative whose primary focus was to encourage behavioural change among adolescents in order to reduce HIV infections through a programme known as National Adolescent Friendly Clinic Initiative (NAFCI) (Mabitsela, no date). The South African Department of Health took over the implementation of NAFCI in 2006 from LoveLife with the intention of expansion to all public health care facilities as Adolescent and Youth Friendly Services (AYFS) instead of limiting it to LoveLife-supported facilities (Geary *et al.*, 2015). NAFCI was adapted by Department of Health (DoH) to AYFS in order for public health clinics to provide services relevant and specific to the needs of young people (CHIVA South Africa, 2017). The AYFS essential service package includes HIV education, HIV Testing Services (HTS), HIV treatment and general Sexual and Reproductive Health (CHIVA South Africa, 2017).

The study was conducted in Amathole District in the Eastern Cape Province, South Africa. Amathole is situated in the central part of the Eastern Cape Province and is made up of four sub-districts: Mbhashe, Mnquma, Amahlathi and Nkonkobe (Massyn *et al.*, 2016). According to the District Health Information System (DHIS) 2017 mid-year population estimates, the district has a total population of 894 039 with youth (15 – 24 years) making up 22% of this population at 193 102. The Eastern Cape Province has the second-highest HIV testing coverage in South Africa at 37% with Amathole Health District reporting the highest coverage at 60% (Massyn *et al.*, 2016).

Although the country and the Amathole Health District have improved HIV testing coverage, the uptake of HIV testing among the youth is still low (Massyn *et al.*, 2016). This leads to low rate in diagnosing youth living with HIV and delaying treatment initiation, therefore defeating the purpose of “Treatment as Prevention” strategy for HIV epidemic control (Wong *et al.*, 2017).

The Joint United Nations Programme on HIV AIDS (UNAIDS) introduced a strategy in 2013 known as 90-90-90 as means of achieving HIV epidemic control (Gray, no date). These are targets which are aimed at ensuring that 90% of people living with HIV will know their status of-which 90% should be on Antiretroviral Treatment (ART) and 90% of those on treatment be virally suppressed by year 2020 (Gray, no date). In December 2014, South Africa as part of the global community adopted the UNAIDS 90-90-90 targets in pursuit of improving health outcomes (South African National Department of Health, 2016)(Abraham Malaza *et al.*, 2016). An analysis of the 2016 South African HIV data presented at the 8th South African AIDS Conference for the general population 90-90-90 HIV cascade revealed an improvement in the number of people living with HIV knowing their status and linked to care (Diseko, 2017).

Studies conducted during 2016 in Malawi, Zambia and Zimbabwe indicated that there are notable gaps in the 90-90-90 HIV cascade for youth aged 15-24 years, these revealed that only 46% of youth living with HIV knew their status with 82% on treatment and 79% virally suppressed (Wong *et al.*, 2017). The implementation of the AYFS essential service package in health facilities is hoped to improve youth health through strategies that include HIV testing uptake for early diagnosis and treatment (CHIVA South Africa, 2017).

This study was conducted to evaluate the effect of the AYFS implementation as a strategy to improve HIV testing uptake among the youth of Amathole District.

1.2 Problem statement

The Amathole district is ranked the second-highest in the country on HIV testing coverage according to the District Health Barometer (DHB) 2015/16. However there is still a general low uptake of HIV testing among the youth aged 15 -24 years (Massyn et al., 2016). Some facilities in Amathole are not implementing the programme, however the exact number of actively implementing facilities could not be established. AYFS is not yet implemented in all

facilities of Amathole, however, is not clear whether this intervention is yielding the intended effect on youth HIV testing uptake in the implementing facilities or not. So far there has been no evaluation to assess the effects of the programme on HIV testing uptake by the youth in the district in light of the UNAIDS 90-90-90 strategy, therefore the necessity to carry out this study. Given the high HIV prevalence and new infection rates among youth, the district needs to plan on scaling up of youth-focused interventions based on an understanding of what is feasible in yielding the desired effect in the shortest term.

1.3 Purpose of the study

The purpose of this study is to evaluate and quantify the effect of AYFS implementation on HIV testing uptake among youth in light of UNAIDS 90-90-90 strategy, focusing on the first 90 and provide guidance on whether the district should invest more resources on AYFS or should consider other alternatives to reach the target among the youth. The findings of this evaluation will also encourage the implementing facilities that have no evidence of improvement to conduct operational research to establish any reasons for no impact and bridge those gaps. The NGOs could also make use of the study to identify areas requiring strengthening in their supported facilities through assisting with operational research and documentation of best practices and any un-intended outcomes for presentation at various platforms.

1.7 Summary

South Africa continues to have high HIV transmission rates with 60% of new infections reported among the youth. The country has reported an increase in testing coverage for targeted population of 15-49 years, but it is not clear how much of this coverage is comprised of the youth. South Africa also adopted the UNAIDS 90-90-90 strategy, which requires for 90% of people living with HIV to know their status. A strategy which targeted the youth was

implemented in a form of Adolescent and Youth Friendly facilities to ensure that health services – including HIV testing provided to the youth are relevant and in line with their needs. The study seeks to evaluate the effect of this strategy in Amathole District’s youth HIV uptake rate ten years after being adopted by the National Department of Health for roll-out and in light of the 90-90-90 strategy.



Chapter 2

LITERATURE REVIEW

2.1 Introduction

The AYFS programme is an expansion of the NAFCI programme to ensure that adolescents and youths have comprehensive access to reproductive health services inclusive of HIV prevention, diagnosis and treatment. This chapter presents a review of literature on factors affecting HIV infection; access, utilization and uptake of HIV services among the youth.

There is very limited information on studies that focus on HIV testing among youth in Southern African countries (Peltzer and Matseke, 2013). A number of studies conducted to evaluate youth friendly services focus on determinants or barriers of youth friendly services utilization by young people, youth's experiences when accessing the services in health facilities and evaluation of community-based models of YFS (Geary et al., 2014; Geary et al., 2015). A systematic review of various interventions targeting youth for HIV prevention in South Africa illustrates that addressing factors underlying HIV risk came up as the most common success factor (Harrison et al., 2010). The Prevention of Mother To Child Transmission (PMTCT) programme has made remarkable progress in reducing infant HIV infection rate, but this may be compromised or reversed by the combination of low HIV diagnosis among the youth and the findings of the studies highlighting that adolescent girls are mostly infected in age-desperate sexual relationships (Wong *et al.*, 2017).

2.2 Factors underlying risk of HIV infection

Successful reduction of HIV prevalence can be attributed partly to sexual behavioural change among the youth through comprehensive sexual education (Harrison *et al.*, 2010). This is backed up by a study conducted by Joshua Kembo (2012) which reported that young people

who had early sexual debut had higher risk of HIV infection when compared to peers who delayed their sexual debut (Kembo, 2012). Myths concerning condom use put young people at an increased risk of HIV infection as they believe that condoms interfere with sex, leading them to engaging in unprotected sex (Simbayi *et al.*, 2005). Intimate Partner Violence is another factor that increase the risk of HIV infection among women, this is further perpetuated by cultural practices whereby women – especially in rural areas are still subjected to subordinate positions, where men have every authority or right over women (Linganiso and Gwegweni, 2016). A study conducted in a Cape Town township revealed that for youth males, limited education and use of marijuana attributed to the high risk of HIV infection (Simbayi *et al.*, 2005).

2.3 Determinants of AYFS utilization and HIV testing uptake

Among the general population studied in Nairobi, socio-demographic status such as level of education and marital status are among the factors influencing a person's decision to have an HIV test (Ziraba *et al.*, 2011). A similar study carried out in South Africa revealed that age; gender; having been pregnant and having access to HIV information were determinants of deciding to have an HIV test among the youth (Peltzer and Matseke, 2013). A study conducted in Western Kenya showed that youth-focused comprehensive interventions had a positive influence on youth HIV testing coverage (Alsallaq *et al.*, 2017). According to studies conducted in some African countries, young people regard youth-friendly staff, privacy and affordability as crucial for targeted health services (MIET Africa, 2011). Primary social support from family has been identified as another determinant for youth to develop health care seeking behaviour as parents play a vital role in identifying health problems and encouraging youth to seek medical care (Anderson and Lowen, 2010).

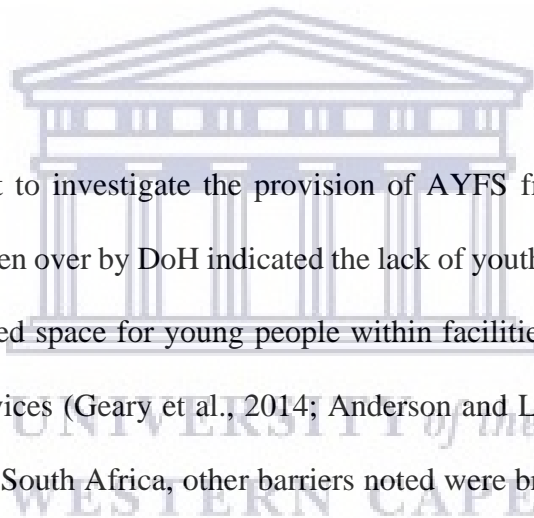
Additional studies have shown that the implementation of youth-friendly services or NAFCI alone did not automatically prompt the youth to request an HIV test, but the staff's positive response and attitudes towards information sharing with youth, and demographic factors had an effect on HIV testing – among other health seeking behaviours (Geary *et al.*, 2015; Peltzer and Matseke, 2013; Ziraba *et al.*, 2011)

2.3 Barriers to AYFS utilization and HIV testing uptake

Based on available literature, utilization of the services targeted at youth and HIV testing can mainly be affected by a combination of systemic factors, social factors and intrapersonal factors.

Systemic factors

The first study carried out to investigate the provision of AYFS from the service provider perspective since being taken over by DoH indicated the lack of youth-friendly training among staff and lack of a dedicated space for young people within facilities as barriers to adequate implementation of the services (Geary *et al.*, 2014; Anderson and Lowen, 2010). In a study carried out in Cape Town, South Africa, other barriers noted were breaches of confidentiality and negative attitudes from health workers (Mathews *et al.*, 2009). A simulated client study which evaluated YFS revealed that young people's needs for information on available contraceptive methods, condom use and testing for HIV or pregnancy were not met (Geary *et al.*, 2015), therefore limiting the use of the services. This ties into the findings of a study which indicated that only a quarter of Nigerian youth and a third of Ugandan youth had comprehensive knowledge of HIV (Asaolu *et al.*, 2016). These findings are worrisome since studies conducted in South Africa and Sub-Saharan Africa identified knowledge of HIV as one of the determinants for HIV testing among youth (Peltzer *et al.*, 2013; Asaolu *et al.*, 2016).



Social factors

The social factors affecting youth's health and wellbeing are intimately associated with families, peers, and communities (Anderson and Lowen, 2010). Poor socio-economic status early in life has negative impact on health in the long-term, and youth experience an extensive range of social inequalities that can significantly affect their health (Hassan, Subramanian and Fleeger, 2015). Stigma and financial barriers are some of the social factors which also play a role in limiting help-seeking behaviour and accessibility of health services (Anderson and Lowen, 2010). It has been reported that a mere 7% of adolescents from impoverished background were knowledgeable about access to health care (Anderson and Lowen, 2010). A literature review conducted by the World Food Programme indicates that a person's level of education has a positive influence on sexual behavioural choices, HIV testing and reduction of prevalence among the youth (Kim and Arbor, 2006). A study conducted among youth in tertiary institutions revealed that additional to level of education, one of the social factor was whether the individual has ever engaged in a conversation with a guardian or partner about HIV (Djibuti *et al.*, 2015).

Intrapersonal factors

An individual decision to access HIV testing services is dependent on socio-economic status and level of education, a study conducted in Kenya recommends that strategies to increase the utilization of HIV testing service in rural areas should target the less educated, poor and farming families with an aim to improve knowledge and reducing HIV/AIDS related stigma (Teklehaimanot *et al.*, 2016). An estimated 50% of adolescents are reported to be at moderate to high risk of poor health outcomes due to their inclination to high-risk sexual behaviour, lifestyle choices, substance abuse, and psychosocial pressures (Anderson and Lowen, 2010). A report by WHO indicated that youth tend to not access HIV testing services due to perceiving

themselves as low-risk to HIV infection and for fear of stigma attached to HIV positive results (World Health Organization, 2013).

2.4 Youth's experiences when accessing AYFS

Geary and colleagues (2015) conducted a study to evaluate youth's experiences with YFS in Soweto, South Africa, in which it was noted that there was no difference in young people's experiences between implementing and non-implementing facilities while accessing health services (Geary *et al.*, 2015). This therefore requires ongoing training and monitoring of healthcare workers to ensure that the youth-friendly health service provided is able to address young people's needs (Geary *et al.*, 2015).

There is no evidence of quantitative studies done in evaluating the impact of AYFS on HIV testing among the youth, the available literature focuses on identifying enablers, barriers, determinants for successful implementation of AYFS as well as youth's and service providers' experiences about the service.

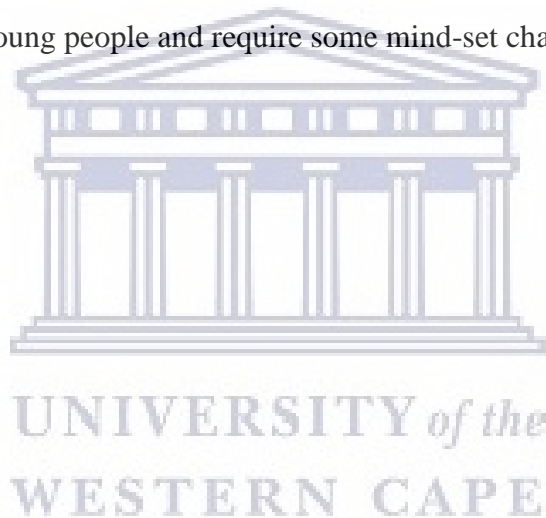
2.5 UNAIDS 90-90-90 strategy among youth

Surveys conducted in Southern African countries in 2016 revealed that less than 50% of youth between ages 15-24 know their HIV status, 82% of those who knew their status were on treatment and only 79% were virally suppressed (Wong *et al.*, 2017). Looking at this data against the first 90, there's is quite a long way to get to the required goal. Facilities where the surveys were conducted reported low HIV testing uptake rates among youth, therefore leading to missed opportunities in identifying those young people living with HIV (Wong *et al.*, 2017).

Feedback from a UNAIDS workshop to review progress on 90-90-90 expressed an agreement among global leaders that key populations such as adolescents and men are not being reached by traditional health facility-based HIV testing services(UNAIDS, 2018).

2.6 Summary

The youth is the most vulnerable population group to ill-health and this is further aggravated by the poor choices they make regarding their health, lifestyle and high risk-taking behaviour. There are health interventions and programmes designed and implemented that focus on servicing the youth both in community and facility settings, however the success of these is influenced by various factors that are beyond the youth's control. These factors include staff attitudes, resources and skills available to address the needs of the youth, issues of confidentiality and primary support structures – such as parents and family among others. While some of the factors such as fear of stigma and perception of low risk are personal, within the control of individual young people and require some mind-set change from the youth.



Chapter 3

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter illustrates the details of the study design and the step-by-step process taken in carrying out the study and the precautionary measures taken to safeguard the integrity of the study as well as that of the subjects implicated in the study.

3.2 Aims and Objectives

The aim of this study was to evaluate the effect of AYFS implementation on HIV testing uptake among the youth (15-24 years) in the Amathole Health District as part of HIV risk reduction strategy.

The objectives of the study were:

- To determine the proportion of facilities implementing AYFS within the Amathole district;
- To determine the HIV testing uptake trend among youth during a 12 months period of 2016 in Amathole district; and
- To compare HIV testing uptake in Amathole district with the Southern African countries and against the first 90 of the UNAIDS 90-90-90 strategy.

3.3 Hypothesis

Implementation of AYFS in public clinics improves HIV testing uptake among youth aged between 15 – 24 years.

3.4 Methodology

This study used quantitative methods to measure the effect of AYFS implementation on youth HIV testing in Amathole health district.

3.4.1 Setting

The study was conducted in Amathole District in the Eastern Cape Province, South Africa. The district is situated in the central part of the Eastern Cape Province and is made up of four sub-districts: Mbhashe, Mnquma, Amahlathi and Raymond Mhlaba (formerly known as Nkonkobe). According to the District Health Information System (DHIS) 2016 mid-year population estimates, the district has a total population of 894 039 with youth (15 – 24 years) making up 22% of this population at 193102. Amathole district is typically rural with vast distances from residential areas to points of service delivery such as health facilities for majority of villagers.

3.4.2 Study Design

The study design that was used is an interrupted time-series analysing secondary data. This design has been utilised and proven appropriate when a new intervention such as a public policy change has been introduced, thus evaluating its effect or impact (Berger *et al.*, 2009) (Biglan, Ary and Wagenaar, 2000). Bernal and colleagues (2017) describe this design as “*A continuous sequence of observations on a population, taken repeatedly (normally at equal intervals) over time*” (Bernal *et al.*, 2017). In this study, the researcher has analysed secondary data to repeatedly measure any change in youth HIV testing uptake over a period of 12 months after 10 years of AYFS adoption (Biglan *et al.*, 2000). Interrupted time-series requires a relatively long time data series and it is most appropriated to be used in routine data analysis (Bernal *et al.*, 2017).

This method was time and cost effective as it did not require collection of primary data by the researcher as data was already available from routine programme performance reporting (Cheng and Phillips, 2014). Interrupted time-series design is the most appropriate for this study because the South African Health Department took over the implementation of AYFS programme in 2006 and after 10 years there should be substantial data available to illustrate its

effect on youth HIV testing uptake. The study assessed the proportion of facilities implementing AYFS in Amathole district and evaluated association of this implementation with testing uptake among the targeted population over a period of 12 months comparing it to the reported Southern African trend. This information can therefore be best established and presented by means of a time-series study design as the researcher looked at trends of HIV testing among population 15 – 24 years of age using routine data reported from January to December 2016.

The researcher acknowledges that there might be limitations with this design for this study. One of the limitations is that the researcher cannot be certain that the observed improvement in HIV testing uptake is a direct result of the intervention independent of other changes within the health system such as campaigns that focus on HIV testing. Bernal and colleagues (2017) attest to this when mentioning the disadvantage with interrupted time series as that *“it has the potential for the erroneous conclusion of intervention effectiveness due to data-driven model specification, and lack of control for time-varying confounders”* (Bernal et al., 2017).

3.4.3 Population and sampling

Amothole district has 112 Primary Health Care (PHC) facilities consisting of 107 Clinics and 5 Community Health Centers (CHCs), however the sample size was determined using the list of facilities reported by the district as implementing AYFS. Amathole district has a total of 24 health facilities that were represented at the AYFS training, however due to high staff turnover in this district the number of facilities qualifying to be part of the sampling frame according to inclusion criteria was 4 and all were included in the study. The number of facilities provided was quite low, at four (4), the researcher applied convenience sampling method and all the sites were included in the study population. However, two (2) of these facilities could not locate their HIV testing registers for the year under study, therefore presenting with missing data for the extraction of 15 to 24 year old group for analysis.

The inclusion criteria were:

- facilities classified as fixed clinics and Community Health Centers;
- facilities providing HIV testing as part of service package;
- facilities with an AYFS trained Clinician
- facilities having a data clerk or a staff member dedicated for collation of data for routine reporting; and
- facilities registered as reporting sites on DHIS.

The exclusion criteria were:

- facilities that had been part of NAFCI; and
- facilities that had moved across the borders of Amathole district because of political demarcation prior to this study.

3.4.4 Data Collection

The researcher obtained a list of facilities reported as implementing AYFS from the Amathole district office. HIV testing registers containing data from January 2016 to December 2016 were requested in each facility reported as implementing the strategy. Data on HIV testing for youth 15-24 years old and segregated by gender was extracted using the data collection tool (see Annexure 1). The data on 2016 population estimates and routine monthly HIV tests done 15years and older per facility was extracted by the researcher from DHIS into the data collection tool. Appropriate categorization of data during collection in facility was informed by the National Indicator Data Set (NIDS) document, which provides data definition for each element or variable specifying inclusion and exclusion criteria where applicable. The researcher extracted the data elements required for this study per identified facilities from facility-based HTS registers and DHIS pivot table at district level into a separate excel sheet for data analysis.

3.4.5 Data analysis

The data was analysed using Microsoft Excel Data Analysis Add-in, the researcher looked at:

- The proportion of AYFS implementing facilities out of the facilities that sent staff for training.
- HIV testing rate for youth 15 – 24 years out of HIV tests done in the AYFS implementing facilities (testing of youth among tests offered in facility).
- HIV testing uptake among the population of 15 – 24years in AYFS implementing facilities (proportion of youth population tested for HIV during the year 2016).

The data is continuous, therefore the following process was undertaken in order to be able to select appropriate inferential techniques:

- distribution analysis, to determine normal data distribution; and
- calculation of Standard Deviation and Mean (for normal distribution) or Median and range (for asymmetrical distribution) for preliminary descriptive analysis.

Outcome Variable:

The outcome variable for this study is the proportion of 15 to 24-year-old clients tested for HIV in a health facility either by a professional health worker or lay counsellor out of the target population serviced by the facilities – HIV testing uptake rate. It is the most appropriate outcome variable as it is the variable for which the study is measuring the effect of the association.

Exposure Variable:

Exposure variables identified for this study were:

- The implementation of AYFS
- Gender disaggregation of youth reached for HIV testing
- The number of health professionals in a facility – this would add value in establishing if staffing is a determinant in improving the outcome
- Availability of space in a facility – to establish whether implementation is determined by space, therefore influence infrastructure planning for such facilities to enjoy the outcome associated with implementation.
- Demographic factors such as specific age disaggregation and geographic location – to establish if these factors as determinants are applicable in the district to inform appropriate intervention planning.

The main exposure variable in this study is the implementation of AYFS, it has been identified as important and appropriate because it is the exposure whose effect is expected to have an impact on the outcome. This was further analysed with gender comparison for HIV testing and uptake rate as an additional exposure variable.

The rest of other exposure variables could not be included in this study as it would be time consuming to obtain accurate data on number of health professionals and availability of space because these facilities generally experience high staff turnover or have limited space within the facilities, therefore unable to have a dedicated space for youth and would require conducting interviews with Facility Managers to obtain the details. Youth specific age data is not available in the DHIS to assess whether there are differences in HIV testing uptake among specific age groups within these youths. The size of the studied sample did not afford the researcher a wide geographic variation as both facilities serve deep rural catchment areas.

3.4.6 Rigor

The Health Department sees to it that all health care professionals making use of Tick Registers and Lay Counsellors making use of HTS registers are taken through a training session with every NIDS version update to ensure standard understanding and interpretation of the routine data being collected. Probability plots were used to screen the data for outliers in relation to measures of tendency.

3.4.7 Validity and Reliability

To ensure validity and reliability of this study results, the researcher made an effort to minimise selection bias by ensuring that the study's sampling frame strictly applied the inclusion and exclusion criteria. This study itself was also less prone to information or measurement bias as the data collected at the point of service (in this case HIV testing) is based on standard national definitions contained in the NIDS, and the Health Department has followed some standard criteria in categorizing facilities as AYFS implementing or not.

3.4.8 Ethics Considerations

The study proposal was submitted to the University of the Western Cape (UWC) Ethics Committee for approval and ethics clearance. Once approval was obtained from the University (Ethics Reference Number: BM17/9/6), a written submission was made to the Eastern Cape Department of Health – Amathole District Manager for approval and consent to utilize the facility routine data (EC_201711_011). The Manager was informed that the use of this data in the study will only be for mini-thesis research which is part of the Masters in Public Health programme at the UWC School of Public Health. The facility names have been coded for the study to ensure anonymity of the Managers. The researcher ensured that no offensive or derogatory conclusions were made from this study that could potentially taint any Manager's integrity. Ownership of the data remained with the Amathole Health District and the researcher together with the Supervisor only ensured safe-storage of the data for this study. The data was

stored on a personal drop-box account and a link was shared with the Supervisor to ensure that only the individuals involved in this study have access to it and to protect it against unforeseen storage disc corruption.

3.5 Summary

Appropriate and careful consideration was taken to minimise any harm to the sample population and relevant Facility Managers. All the steps taken in preparation for conducting the study including but not limited to ensuring the study findings are reliable, confidentiality being maintained, data ownership and safe storage were taken in line with both the University and DoH ethics requirements.



Chapter 4

RESULTS

4.1 Introduction

The data collection was done using the attached Microsoft Excel form as an extraction tool from facility HTS registers, then analysed using Microsoft Excel Add-Ins. The results presented in this chapter are from two facilities namely N and K which had all the required data to satisfy the research objectives available.

According to the DHIS 2016 population estimates, facility N services a youth population of 2499 of which 51% (1263) is females and facility K services a youth population of 1850 of which 47% (877) is females. The results presented in this chapter are an illustration of all HIV tests done irrespective of the outcome of the test, which directly talks to the 1st 90 of the USAID 90-90-90 strategy that 90% of the population should know their HIV status. This chapter looks at facilities that implemented the strategy, testing of youth among tests offered in facility (testing rate) and proportion of youth population tested for HIV during the year 2016 (HIV test uptake rate). Testing rate refers to the percentage of targeted clients tested out of the tests done in a facility and testing uptake rate is the percentage tested out of the targeted population.

4.2 Proportion of facilities implementing AYFS

Amathole Health District has 112 Primary Health Care (PHC) facilities consisting of 107 Clinics and 5 Community Health Centers (CHCs), out of these only 21.4% (24 out of 112) had at least one or more clinician trained on AYFS. Of these facilities with trained staff only 16.7% (4 out of 24) were reported as implementing AYFS due to trained staff leaving the district facilities (high staff turnover), the remaining 20 facilities reported that they don't have trained

clinician and could not locate 2016 registers and also 50% (2 out of 4) of the implementing facilities could not produce the required registers for the period of year 2016 under study.

4.3 HIV testing rate (15-24 years)

Table 1: *Comparison of HIV testing among AYFS facilities*

Facility Name	Total HIV test 15 yrs & Older	HIV test client 15-24 years
Facility - N	3117	308
Facility - K	2881	502

Table 1 above indicates that facility N tested more clients 15 years and older reporting 3117 compared to facility K reporting 2881, however facility K tested more youth (15-24 years) reporting 502 compared to facility N reporting 308.

Figure 1: *15-24 years tested for HIV of 15 years and older HIV tests*

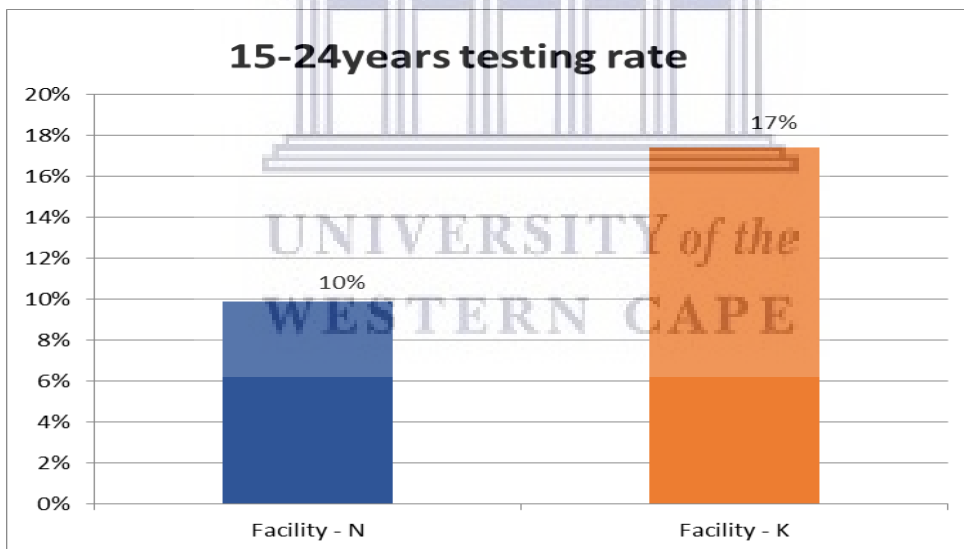
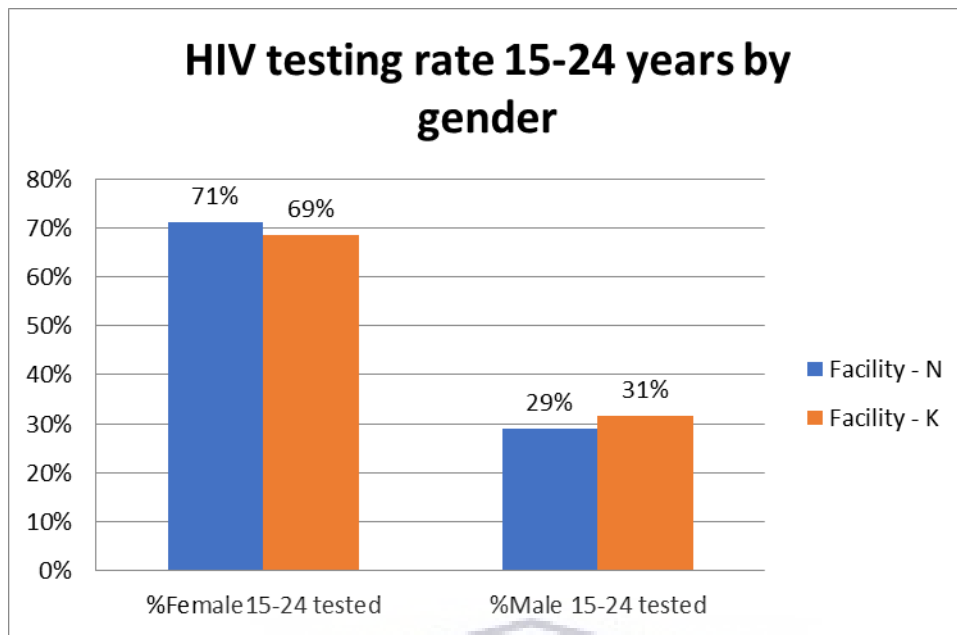


Figure 1 illustrates the proportion of youth tested for HIV among all tests done for age group 15 years and older in these facilities. Facility K reached more youth when offering HIV testing within the facility at 17% as compared to the 10% of facility N.

Figure 2: 15-24 years HIV testing rate by gender



The chart above (Figure 2) indicates that of all the youth these facilities reached for testing, facility N reached relatively more females at 71% of the tested youth compared to facility K while they reached less males than facility K. This is in line with their population of 15 – 24 years distribution whereby facility N has more female population than males and facility K has more male population than females, it is also worth noting that overall more females than males were tested in both facilities.

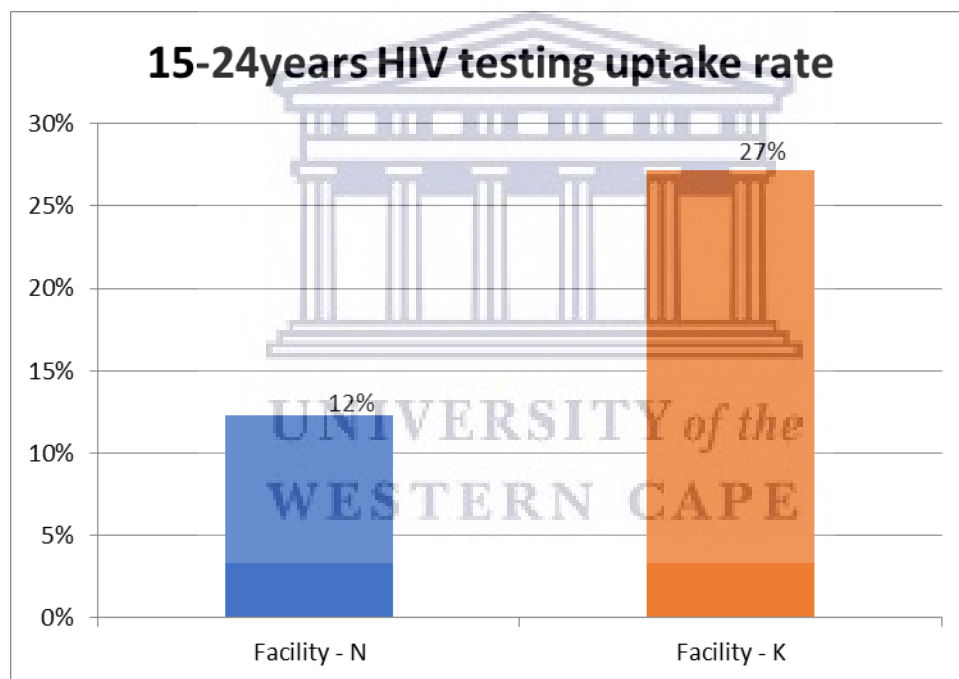
4.4. 15-24 years HIV testing uptake

Table 2: 15-24years HIV testing uptake data analysis

<i>HIV test client 15-24 years</i>	
Mean	33.75
Standard Error	3.210744
Median	30.5
Mode	26
Standard Deviation	15.72937
Kurtosis	0.305568
Skewness	0.795942
Range	63
Minimum	11
Maximum	74
Sum	810
Count	24
Confidence Level (95.0%)	6.64193

Table 2 provides a summary on the shape of the data as it displays a mean (average) of 33.75 of the number of young people tested per month being greater than the median (midpoint) of 30.5 therefore asymmetrical. This is further confirmed by skewness lower than 1 (reported at 0.79) – skewness between 0.5 and 1 indicates a moderately skewed distribution of youth testing for HIV in the two facilities. AYFS implementing facilities have tested a median of 30.5 clients aged 15-24 years in 12 months with a minimum of 11 and maximum of 74 tests per month, this gives a range of 63 youth clients tested for HIV. Kurtosis which is the measure of distribution peak in a curve is less than 3 at 0.30, this is an indication that the data has outliers.

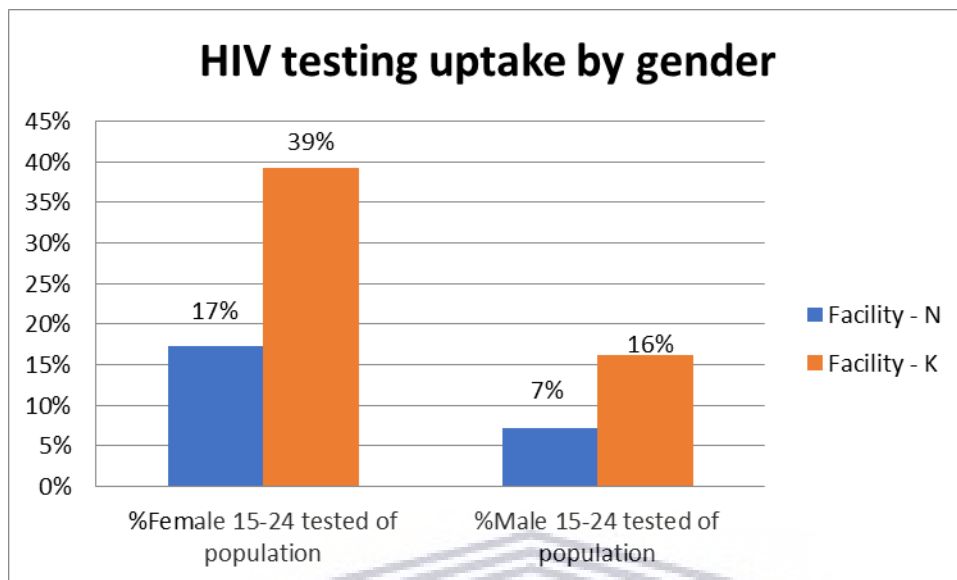
Figure 3: *HIV testing uptake among the 15-24 years population by AYFS facility*



The 90-90-90 strategy requires that 90% of the population to know their HIV status through testing. HIV testing uptake is quite low in both facilities with a better uptake recorded for facility K at 27% while facility N reported less than half of facility K uptake rate at 12% as shown in Figure 3.

4.4.2 15-24 years HIV testing uptake by gender

Figure 4: *HIV testing uptake rate by gender*



At population level, facility K seems to be reaching more youth for HIV testing among both females and males compared to facility N, however for both facilities more females are reached compared to males.

Chapter 5

DISCUSSION

5.1 Introduction

According to the National Youth Policy Report (2015), it is estimated that 16% of South Africans between the ages of 15 - 49 years are living with HIV. More than half (9%) of these are between the ages of 15 - 24 years (The Presidency Republic of South Africa, 2015). South Africa has also shown an average increase in HIV testing coverage from 26% in year 2013/14 to 34% in year 2015/16 among the general targeted population between ages 15 – 49 years (Massyn et al., 2016). According to the District Health Information System (DHIS) 2017 mid-year population estimates, the district has a total population of 894 039 with youth (15 – 24 years) making up 22% of this population at 193 102. It would therefore be expected that youth testing rate among all adults (15 years and older) tested be close to the 22% mark as an indication of AYFS being accessed by the intended recipients.

5.2 Discussion of findings

A study by James and others (2018) states that a facility to be classified as successfully implementing AYFS needs to meet a set of 10 standards, one of which is availability of trained staff to provide the services (James *et al.*, 2018). Other factors that led to failure in programme implementation include maximum involvement of influential stakeholders such as NGOs which avails sufficient resources during implementation phase, but these are not available for a wider roll-out phase (Sadhu Charan and Paramita, 2016). In a study conducted in India, the factors cited by James and colleagues as deterrents to programme implementation success were reiterated which included technical inadequacy and operational incapacity among other factors (Sadhu Charan and Paramita, 2016).

The Amathole district trained staff members from 24 (21.4%) facilities to champion and run the AYFS, however very few can be categorized as implementing this initiative when considering James and colleagues' standards for AYFS implementation. This is evident in facilities where the trained staff members were reported to have left and there was no continuation of the service provision to the youth with only 4 out of 24 reported to be implementing the programme. The number of facilities that were selected for training was also very low as it was not even a quarter of the PHC facilities in the district.

Poor data and records management has been identified as another risk factor for the monitoring of the outputs and effects of the AYFS, this is displayed by 50% (2 out of 4) of the facilities with trained staff still stationed at the sites not being able to produce records illustrating the work done during the period in question. This led to sample realization of less than 100% due to the missing data, therefore unable to make district-wide statistical inferences to prove or disprove association between the implementation of AYFS and youth HIV testing uptake.

In the two facilities that implemented AYFS, overall youth testing rate was below 20% with facility K displaying a possibility of a targeted testing to reach the youth as compared to facility N. It might be that facility N is implementing AYFS, but not necessarily making the effort to reach the youth when providing HIV testing services. These testing rates pose a risk of missed opportunities to diagnose the youth.

According to Massyn and others, South Africa improved general HIV testing uptake rate reporting coverage of 26% in 2013/14 and 34% in 2015/16 (Massyn et al., 2016). The AYFS facilities in this study however provided lower youth coverage than national general population coverage with 12% at facility N and 27% at facility K even though they have this intervention aimed at improving HIV testing uptake.

However, the data shows that facility K tested 39% of the youth female population as compared to the 16% of youth male population. This gender disparity in HIV testing is in line with findings of a study conducted in South Africa on determinants of HIV testing among young people, where more females (60.1%) tested as compared to their male (39.9%) counterparts (Peltzer and Matseke, 2013).

Facility K's 27% youth HIV testing uptake rate seems to be in line with other sub-Saharan African countries where UNICEF reported that 24% of the youth knew their HIV status, while facility N reported only 12% youth HIV testing uptake rate.

5.3 Limitations

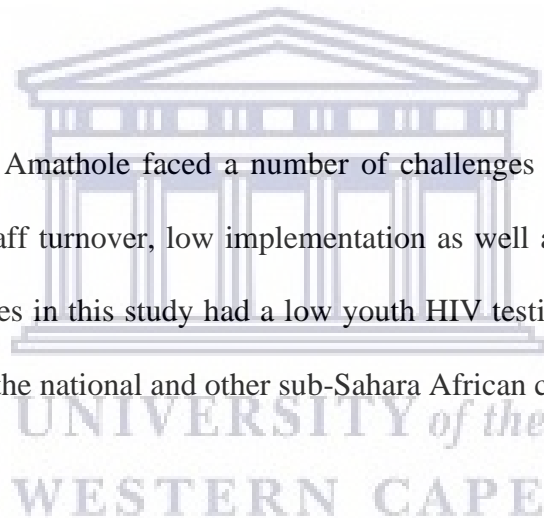
The main limitation experienced with this study is an inconsistency in data availability in facilities. The National Department of Health embarked on rationalisation of registers in 2016, which resulted in reduction of registers in facilities into a single PHC tick register and HIV/TB treatment registers. The facilities did not follow the departmental guidelines on records archiving of the discontinued registers which requires 5 year on-site safe and accessible storage during this transition therefore they could not be accessed during data collection. The available rationalised PHC tick registers did not provide for capturing of some details required in the study such as age disaggregation and HIV testing – it only contained an “HIV” field for a tick with no means of indicating the exact HIV service provided. Once this shortcoming was identified to negatively affect donor-funded programmes reporting, a decision was made to revert back to having a separate HIV testing register. The process of re-instating the registers was challenged by inadequate availability of registers therefore resulting in limited record of required data for the period under study. As a solution to this limitation, the researcher reduced the timeframe of 2006-2016 to evaluate and focused on the 2016 monthly data.

An additional limitation is that Amathole is faced with a challenge of high staff turn-over which resulted in AYFS trained staff leaving facilities with no one adequately skilled to run the services. The staff shortages make it almost impossible to release the remaining staff to attend training in order to obtain the necessary skills to continue with the service, rendering only two facilities able to continue with the service and keep adequate recording system.

Due to unavailability of data in the required format at non-implementing facilities, a comparison between AYFS implementing and non-implementing facilities could not be included in the study. This comparison could have been a useful means to identify the presence of these time-varying confounding factors that might have had an effect on HIV testing uptake.

5.4 Summary

AYFS implementation in Amathole faced a number of challenges which include low staff training coverage, high staff turnover, low implementation as well as poor data and records management. Both facilities in this study had a low youth HIV testing rate and one had low youth HIV uptake, below the national and other sub-Saharan African countries.



Chapter 6

CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

The findings of this study indicate a long way ahead for the health facilities to realise the full benefits of the AYFS model. The studied facilities reported youth HIV test uptake rates which are lower than the Eastern Cape provincial 37%, Amathole district 60% and the 1st 90 of the USAID strategy. This is an indication that the youth has not been adequately reached as intended when expansion of the NAFCI programme was adopted by the government. Non-compliance to data management and archiving policies posed a major limitation to proper representation of the district true situation. The high staff turn-over of AYFS trained staff resulted in discontinuation of focused services and poor record-keeping.

The findings of this study cannot at this stage be used to infer for the entire district as the sample size was too small to adequately represent a district-wide conclusion. The small sample obtained is indicative of either poor implementation execution or poor marketing of the services to the relevant intended recipients.

6.2 Recommendations

The researcher recommends that

- a) AYFS programme be implemented in 100% of the PHC facilities with more than 1 clinician trained in each facility. This will ensure that when a staff member leaves a facility there is continuation of services while new employees go through the training to close the gaps.

- b) The district needs to closely monitor facilities on compliance with records management guidelines for archived data to ensure that historical routine data is accessible when needed.

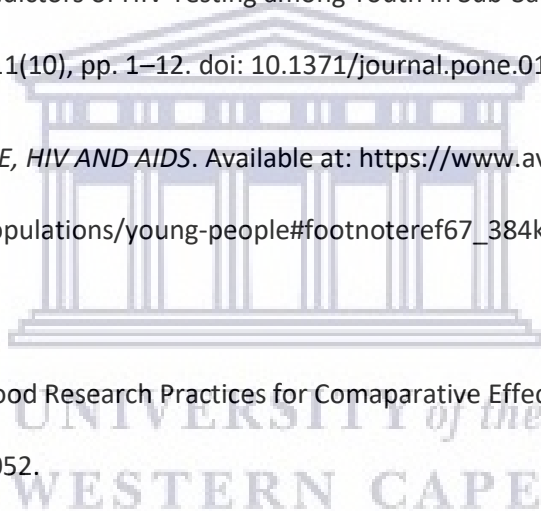
6.3 Recommendations for further research

It is recommended that a detailed qualitative research be done in Amathole to establish other constraints such as overall staff complement in relation to national norms, infrastructural profile in comparison with facilities where the pilot was successful and staff attitudes or morale that could be the cause of poor implementation of this youth-focused concept.



References

- Abraham Malaza *et al.* (2016) *'The 90 90 90 Compendium: An Introduction to 90-90-90 in South Africa'*. 1. Durban, South Africa. doi: 10.1016/j.spinee.2016.09.004.
- Alsallaq, R. *et al.* (2017) 'The potential impact and cost of focusing HIV prevention on young women and men: A modeling analysis in western Kenya', *PLoS ONE*, 12(4), pp. 1–19. doi: 10.1371/journal.pone.0175447.
- Anderson, J. E. and Lowen, C. A. (2010) 'Connecting youth with health services - A systemic review', *Canadian Family Physician*, 56.
- Asaolu, I. O. *et al.* (2016) 'Predictors of HIV Testing among Youth in Sub-Saharan Africa : A Cross-Sectional Study', *PLoS ONE*, 11(10), pp. 1–12. doi: 10.1371/journal.pone.0164052.
- AVERT (2017) *YOUNG PEOPLE, HIV AND AIDS*. Available at: https://www.avert.org/professionals/hiv-social-issues/key-affected-populations/young-people#footnoteref67_384kp3m (Accessed: 13 July 2017).
- Berger, M. L. *et al.* (2009) 'Good Research Practices for Comparative Effectiveness Research', *Value in Health*, 12(8), pp. 1044–1052.
- Bernal, J. L., Cummins, S. and Gasparrini, A. (2017) 'Interrupted time series regression for the evaluation of public health interventions: A tutorial', *International Journal of Epidemiology*, 46(1), pp. 348–355. doi: 10.1093/ije/dyw098.
- Biglan, A., Ary, D. and Wagenaar, A. (2000) 'The Value of Interrupted Time-Series Experiments for Community Intervention Research', *Prev Sci*, 1(1), pp. 31–49. doi: 10.1080/01635581.2014.951737.Intake.
- Cheng, H. G. and Phillips, M. R. (2014) 'Secondary analysis of existing data: opportunities and implementation.', *Shanghai archives of psychiatry*, 26(6), pp. 371–5. doi: 10.11919/j.issn.1002-0829.214171.



CHIVA South Africa (2017) *ADOLESCENT AND YOUTH FRIENDLY SERVICES - AFS ORIENTATION BRIEFING*.

Diseko, L. (2017) 'Towards 90-90-90 : District Implementation Plan (DIP)', in *8th SA AIDS Conference*.

Djibuti, M. *et al.* (2015) 'Factors associated with HIV counseling and testing behavior among undergraduates of universities and vocational technical training schools in Tbilisi , Georgia', *BMC Public Health*. ???, 15, pp. 1–9. doi: 10.1186/s12889-015-1760-z.

Geary, R. S. *et al.* (2014) 'Barriers to and facilitators of the provision of a youth-friendly health services programme in rural South Africa', *BMC Health Services Research*, 14(259), pp. 1–8. doi: 10.1186/1472-6963-14-259.

Geary, R. S. *et al.* (2015) 'Evaluating youth-friendly services: young people's perspective from a simulated client study in urban South Africa', *Global Health Action*, 8(10), pp. 1–9. doi: 10.3402/gha.v8.26080.

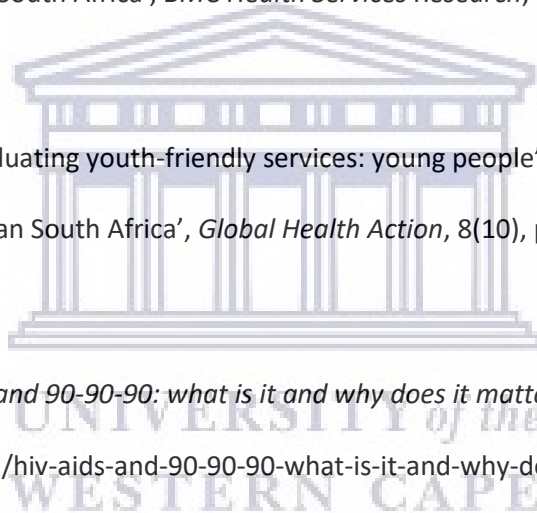
Gray, G. (no date) *HIV, AIDS and 90-90-90: what is it and why does it matter?* Available at: <https://theconversation.com/hiv-aids-and-90-90-90-what-is-it-and-why-does-it-matter-62136> (Accessed: 13 July 2018).

Harrison, A. *et al.* (2010) 'HIV prevention for South African youth : which interventions work ? A systematic review of current evidence', *BMC Public Health*, 10(102), pp. 1–12.

Hassan, C., Subramanian, S. and Fleeger, E. W. (2015) 'Social disparities among youth and the impact on their health', *Dove Press: Adolescent Health, Medicine and Therapeutics*, pp. 37–45.

Hodes, R. (University of C. T. *et al.* (2015) *Adolescent & Youth Health Policy*. South Africa.

James, S. *et al.* (2018) 'Assessment of adolescent and youth friendly services in primary healthcare facilities in two provinces in South Africa', *BMC Health Services Research*. BMC Health Services



Research, 18(1), pp. 1–10. doi: 10.1186/s12913-018-3623-7.

Kembo, J. (2012) 'Risk factors associated with HIV infection among young persons aged 15 – 24 years : Evidence from an in-depth analysis of the 2005 – 06 Zimbabwe Demographic and Health Survey', *SAHARA-J: Journal of Social Aspects of HIV*, 9(2). doi: 10.1080/17290376.2012.683579.

Linganiso, W. and Gwegweni, J. (2016) 'What Perpetuates the Spread of HIV_AIDS in Rural South African Communities_ A Closer Look at Social Factors', *Austin J ournal of Public Health Epidemiology*, 3.

Mabitsela Olga (no date) *Adolescent Health Service in South Africa NAFCI - The National Adolescent Friendly Clinic Initiative, Africa*. Pretoria, South Africa.

Massyn, N. *et al.* (2016) *District Health Barometer 2015/16*. Durban, South Africa.

Mathews, C. *et al.* (2009) 'The Quality of HIV Testing Services for Adolescents in Cape Town, South Africa: Do Adolescent-Friendly Services Make a Difference?', *Journal of Adolescent Health*, 44(2).

MIET Africa (2011) 'Literature Review: Youth friendly health services.', *Grassroots Health News*, (September). Available at: <http://www.miet.co.za/site/papers-presentations>.

Miller, C. L. *et al.* (2017) 'The Botsha Bophelo Adolescent Health Study: A profile of adolescents in Soweto, South Africa', *Southern African Journal of HIV Medicine; Vol 18, No 1 (2017)DO -*

10.4102/sajhivmed.v18i1.731 . Available at:

<https://sajhivmed.org.za/index.php/hivmed/article/view/731/1018>.

Peltzer, K. and Matseke, G. (2013) 'Determinants of HIV testing among young people aged 18 – 24 years in South Africa', *African Health Sciences*, 13(4), pp. 1–9.

Sadhu Charan, M. and Paramita, S. (2016) 'Health Programs in a Developing Country-why do we Fail?', *Health Systems and Policy Research*, 3(3), pp. 1–7. doi: 10.21767/2254-9137.100046.

Simbayi, L. *et al.* (2005) 'Risk factors for HIV-AIDS among youth in Cape Town, South Africa', *AIDS*

and Behavior, 9(1), pp. 53–61. doi: 10.1007/s10461-005-1681-4.

South African National Department of Health (2016) *National HIV Testing Services Policy*. Available at: <http://www.hst.org.za/sites/default/files/HTS Policy 28 July final copy.pdf>.

Teklehaimanot, H. D. *et al.* (2016) 'Factors influencing the uptake of voluntary HIV counseling and testing in rural Ethiopia : a cross sectional study', *BMC Public Health*. BMC Public Health, 16(239), pp. 1–13. doi: 10.1186/s12889-016-2918-z.

The Presidency Republic of South Africa (2015) *National Youth Policy 2015-2020*.

UNAIDS (2010) *Combination HIV Prevention: Tailoring and Coordinating Biomedical, Behavioural and Structural Strategies to Reduce New HIV Infections, Unaid*s. Available at:

https://www.unaids.org/sites/default/files/media_asset/JC2007_Combination_Prevention_paper_en_0.pdf.

UNAIDS (2018) *Accelerating towards 90–90–90*. Available at:

<https://www.unaids.org/en/resources/presscentre/featurestories/2018/july/90-90-90-targets-workshop> (Accessed: 14 November 2019).

UNICEF (2016) *Turning the tide against AIDS will require more focus on adolescents and young people*, *UNICEF Data: Monitoring the Situation of Children and Women*. Available at:

<https://data.unicef.org/topic/hivaids/adolescents-young-people/#> (Accessed: 9 June 2017).

Wong, V. J. *et al.* (2017) 'Adolescents , young people , and the 90 – 90 – 90 goals : a call to improve HIV testing and linkage to treatment', pp. 191–194. doi: 10.1097/QAD.0000000000001539.

World Health Organization (2013) 'Recommendations for a public health approach and considerations for policy-makers and managers', *WHO Library Cataloguing-in-Publication Data*.

Ziraba, A. *et al.* (2011) 'Determinants for HIV testing and counselling in Nairobi urban informal settlements', *BMC Public Health*. BioMed Central Ltd, 11(663). doi: 10.1186/1471-2458-11-663.



UNIVERSITY *of the*
WESTERN CAPE

ANNEXURE 1: Data Collection tool

Evaluation of AYFS effect on HIV Testing uptake (15-24years) data extraction tool		2016											
Facility Name	Data elements	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Facility 1	Population 15 - 24years												
	Male population 15 - 24 years												
	Female population 15 - 24 years												
	Total HIV test 15 yrs & Older												
	HIV test client 15-24 years												
	HIV test client 15-24 years (Male)												
	HIV test client 15-24 years (Female)												
Facility 2	Population 15 - 24years												
	Male population 15 - 24 years												
	Female population 15 - 24 years												
	HIV test client 15-24 years												
	HIV test client 15-24 years (Male)												
	HIV test client 15-24 years (Female)												
Facility 3	Population 15 - 24years												
	Male population 15 - 24 years												
	Female population 15 - 24 years												
	HIV test client 15-24 years												
	HIV test client 15-24 years (Male)												
	HIV test client 15-24 years (Female)												

--	--	--	--	--	--

Office Use only

UNIVERSITY OF THE WESTERN CAPE
(HEALTH) BIOMEDICAL RESEARCH ETHICS COMMITTEE

APPLICATION FOR ETHICS APPROVAL
For research with human participants

APPLICATION FORM

ADMINISTRATIVE DETAILS

NAME of Primary Researcher	Gcobisa Geza
Professional status (year of study?)	MPH 2 nd Year
NAME of Co-investigator	N/A
UWC Faculty:	Community Health Sciences
UWC Department	School of Public health
Place of employment	Strategic Evaluation Advisory and Development (SEAD) Consulting
Full Postal address	4933 Phola Park, Dimbaza, 5671
Contact telephone number	0839417973
Email Address	gezagcobisa23@gmail.com
Current HPCSA Number (or equivalent)	N/A
Title of Study	Evaluation of the effect of Adolescent and Youth Friendly Services implementation on HIV testing uptake among youth (aged 15 - 24 years) in health facilities of Amathole District.

--	--	--	--	--	--

Office Use only

1. What kind of study design is proposed?

The researcher proposes an Interrupted Time-Series study design analyzing secondary data collected routinely on a monthly basis in clinics and community health centers in Amathole Health District.

2. Who or what are the proposed research subjects in your sample?

Study subjects will be sampled from Primary Health Care Facilities (Clinics and Community Health Centers) in all four Sub-Districts of Amathole Health District

3. Where will the Research be carried out?

The secondary data trends analysis for this research will be carried out for the Amathole Health District of the Eastern Cape Province in South Africa

4. How will you collect your data?

The study will be conducted by means of analysis of existing secondary data extracted from routine DHIS dataset. Data elements relevant to this study will be extracted from DHIS and imported into STATA11.0 for statistical analysis

5. How will you address the ethical issues of consent and confidentiality etc?

Request for permission to use the routine data for the study has been submitted to the Eastern Cape Department of Health Ethics Committee to address the issues of consent. Facility names will be coded for the purpose of this study to ensure anonymity of Facility Managers as means of addressing confidentiality issues.

6. If the subject needs any kind of health care what will be arranged?

The study is observational with no human subjects involved, therefore no healthcare will be required

--	--	--	--	--	--


Office Use only

7. I certify that all information provided above is correct and that it will apply throughout the performance of the proposed research and that I shall be responsible for the safeguarding of the confidentiality of human subjects' information involved.

I agree to comply with the UWC Biomedical Research Ethics Committee's Terms of reference and the SA Department of Health (2004) *Ethics in health research: Principles. Structures and processes*, and, if applicable, the SA Department of Health (2006) *South African good clinical practice guidelines*.

Signatures

Dates

Researcher		06 September 2017
------------	---	-------------------

Co-investigators		
------------------	--	--

Head of Department		
--------------------	--	--

If research is for Degree purposes:

Degree:	Master in Public Health	Student No	2211256
Supervisor Name			
Signature		Date	

For Official Use

APPROVED	NOT APPROVED
----------	--------------

Comment

--

Signature		Date	
-----------	--	------	--



UNIVERSITY *of the*
WESTERN CAPE