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The Roles of Social Media in Disseminating HIV/AIDS Information To Young People Aged 18-24 in Harare, Zimbabwe

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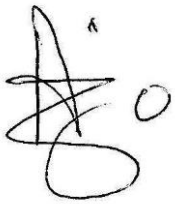
Declaration

I declare that this dissertation submitted for the PhD in Information Science at the University of Pretoria, is my own original work and has not been submitted by me for a degree at another university.



27 September 2018

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Date

ABSTRACT

HIV infection is a serious problem among young persons aged 15-24 years in Zimbabwe. According to a United Nations statement, the reduction of HIV and AIDS in this age group is important for monitoring the epidemic among the general population. Because the legal age of majority in Zimbabwe is eighteen years, this study investigated the roles of social media to improve the dissemination of HIV/AIDS information to young people aged 18-24 in Harare. The main aim was to establish a model that encapsulates the special roles for social media to improve the dissemination of HIV/AIDS information to this target group.

To collect relevant data, questionnaires and interviews with young people and HIV/AIDS organisations in Harare complemented an extensive literature review of the extant models for disseminating HIV/AIDS. The review revealed that there are several models for disseminating HIV/AIDS information via social media platforms. However, they lack the special requirements for an African city like Harare, and for this age group. Drawing on the strengths of these models and the unique data set generated by the research instruments, the study proposes a model fitting the special circumstances and challenges of 18-24 year old people in Harare.

The Harare HIV/AIDS Information Dissemination Programme for Young People model (HAIDYP) will for the first time unite all Zimbabwean organisations involved in disseminating HIV/AIDS information to focus on a specially targeted group. This model is especially sensitive to the indigenous languages of Ndebele, Shona, and Venda languages and advocates links with international, regional, and national organisations. HAIDYP's special counselling role elaborates on the formal and informal teaching dimensions of

existing models, and it has the potential of extending the benefits of social media to improve the dissemination of HIV/AIDS in other cities in Zimbabwe.

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I would like to thank my supervisor, Professor Archie L Dick, for the patient guidance, encouragement and advice he provided throughout my PhD research process. I have been extremely privileged to have a supervisor who cared so much about my work, and who responded to my questions and queries so promptly. His positive outlook and confidence in my research inspired me and gave me confidence. I am also humbled by his extraordinary human qualities.

I must express my gratitude to Kuziwa, my husband for taking care of our children during those times I was away in South Africa; my son, Takudzwa and daughter, Tanatswa, for their continued support and encouragement, without which I would not have come this far.

List of Abbreviations and Acronyms

AfDB	African Development Bank
AFR/PHC	AFR/Primary Health care
AfriAfya	African Network for Health Knowledge Management and Communication
AIDS	Acquired Immune Deficiency Syndrome
AIC	AIDS Information Centre
ARVS	Antiretroviral Drugs
AHRN	The Asian Harm reduction Network
BBC	British Broadcasting Corporation
CDC	Centers for Disease Control
CeSHHAR	Centre for Sexual Health and HIV/AIDS Research
CHS	College of Health Sciences
DBS	Dried Blood Sample
DSD and other AFRO	Disorders of Sex Development
EI	The Earth Institute at Columbia University
ESAP	Economic Structural Adjustment Programme
FGD	Focus Group Discussions
GDP	Gross Domestic Production
GFATM	Global Fund against AIDS, TB and malaria
HAIDYP	Harare HIV/AIDS Information Dissemination Programme for Young People
HIS	Health Information Systems
HINARI	Health Inter-Network Access to Research Initiative

HIV	Human Immune-deficiency Virus
HNP	Health, Nutrition and Population
HOPE	Harnessing Online Peer Education
HRSA	Health Resources and Service Administration
ICT	Information Communication Technologies
IT	Information Technology
IEC	Information, Education and Communication
ICASA	International Conference on AIDS and STDs in Africa
INASP	International Network for the Availability of Scientific Publications
ITU	International Telecommunications Union
JAIP	Jerusalem AIDS Project
LCCS	Learning Community Charter School
MDGs	Millenniun Development Goals
MOH	Ministry of Health
MHCC	Ministry of Health and Child Care
MP	Millennium Promise
NAC	National AIDS Council
NACA	National Agency for the Control of AIDS
NATF	National AIDS Trust Fund
NGO	Non-Governmental Organisation
NHMIS	National Health Management Information System
PANAFTEL	The Pan-African Telecommunications Network
PHC	Primary Health Care

PEPFAR	President's Emergency Plan for AIDS Relief
PLWHA	People Living with HIV
PLHIV	People Living with HIV/AIDS
PMI	President's Malaria Initiative
PrEP	Pre-Exposure Prophylaxis
PERI	Program for the Enhancement of Research of Information
SAFAIDS	Southern African HIV *and AIDS* Information Dissemination Service
SAHARA	Sistas Accessing HIV/AIDS Resources At-a-click
SIDA	Swedish International Development Cooperation Agency
SIV	Simian Immunodeficiency Virus
SRH	Sexual and Reproductive Health
SRHR	Sexual reproductive health and rights
SHIV	Simian-Human Immunodeficiency Virus
SMS	Short Messaging Service
SPNS	Special Projects of National Significance
SPSS	Statistical Package for Social Sciences
STD	Sexually Transmitted Disease
STERP	Short-Term Emergency and Recovery Programme
STI	Sexually Transmitted Infections
TTC	Text To Change
UCLA	University of California at Los Angeles
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS

UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
UNECA	United Nations Economic Commission for Africa
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNPFA	United Nations Population Fund
UP, EBIT	University of Pretoria, Research Ethics Committee in the Faculty of Engineering, Built Environment and Information Technology).
USA	United States of America
USAID	United States Agency for UZ ZCBC Zimbabwe Catholic Bishops' Conference
USSD	Unstructured Supplementary Service Data
VCT	Voluntary, Counselling and Testing
UZ	University of Zimbabwe
WHO	World Health Organisation
ZNNP	Zimbabwe National Network for People Living with HIV/AIDS
ZAN	Zimbabwe AIDS Network
ZIMASSET	Zimbabwe Agenda for Sustainable Socio-Economic Transformation
ZDHS	Zimbabwe Demographic and Health Survey
ZIMSTAT	Zimbabwe National Statistics Agency

Zimbabwe STEPS survey, 2005

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CHAPTER 1: Introduction and Background

1. Background

In 2016 UNAIDS estimated that 36.7 million people were living with HIV, as compared to 33.2 million in 2010. Tens of millions of people have died of AIDS-related causes since the beginning of the epidemic. Although new cases were reported in all regions of the world, nearly two-thirds are in Sub-Saharan Africa, and 43 percent of the new cases were reported in Eastern and Southern Africa. Many people living with HIV or who are at risk of HIV do not have access to prevention, care and treatment, and there is still no cure. It has been reported that HIV primarily affects those in their most productive years. Young people aged 15-24 account for one third of new infections (HIV and AIDS 2017).

The United Nations (UN) defines 'youth' as "those persons between the ages of 15 and 24 years, without prejudice to other definitions by Member States. All UN statistics on youth are based on this definition, as illustrated by the annual yearbooks of statistics published by the United Nations on demography, education, employment and health" (United Nations-Youth).

As of 2005, UNESCO's action with and for young people is based on the UN definition of youth, that is persons between 15-24 years of age

In this study, however, 'young people' refers to ages 18-24. This age group was selected because, according to The Legal Age of Majority Act 1982 (No 15 of 1982), the age of eighteen years is the legal age of the majority in Zimbabwe. (See 1.1, 1.5.2 and 1.8). This age group was also chosen because according to Kembo (2012) HIV infection remains a major problem among young persons aged 15-24 years in Zimbabwe. Kembo (2012:54) further states that "the Joint

United Nations programme on HIV/AIDS (2010) stipulates that the reduction of the prevalence of HIV and AIDS among persons aged 15-24 years is important for monitoring the reduction of the epidemic among the general population". Many university students fall into the 18-24 age group, and they will be included in this study.

Of about 1.8 million new infections in 2016 across the world, 610,000 were young people between the ages of 15 to 24 (The Global HIV/AIDS Epidemic, Nov 29, 2017).

The East and Southern Africa region is hardest hit by HIV in the world. It is home to 6.2 percent of the world's population. In 2016, there were 790,000 new HIV infections, 43 percent of the global total. South Africa with 270,000 accounted for one third of the region's new infections in 2016, with another 50 percent occurring in eight countries: Mozambique, Kenya, Zambia, Tanzania, Uganda, Zimbabwe, Malawi, and Ethiopia (HIV and AIDS 2017).

Swaziland with 27.2 percent has the highest prevalence in the world. In Eastern and Southern Africa, 420 000 people died of AIDS-related illnesses in 2016, although the number of deaths has fallen significantly from 760,000 in 2010, (The Global HIV/AIDS Epidemic 2017).

There has been a great improvement in Eastern and Southern Africa to meet the UNAIDS 90-90-90 targets in spite of the epidemic in the region. The aim was to diagnose ninety percent of all HIV-positive persons, and to give them antiretroviral therapy (ART), and achieve viral suppression for 90 percent of those treated by 2020. In 2016, UNAIDS reported that 76 percent of people living with HIV in the region are now aware of their status, 79 percent who

know their status are on treatment, and 83 percent of those on treatment have achieved viral suppression (Bain, 2017).

Despite these achievements and challenges, new global efforts have been initiated to address the epidemic and there has been significant progress. The number of newly infected cases, especially children and AIDS-related deaths has dropped significantly. By June 2017 there was a significant rise in the number of people with HIV receiving treatment. According to UNAIDS, 2017, the rate at which new infections are declining is too slow to reach global targets (The Global HIV/AIDS Epidemic 2017).

In 2016, 1.3 million people were living with HIV. Zimbabwe, at 13.5 percent, had the sixth highest HIV prevalence in Sub-Saharan Africa. As a result of behaviour change communication, high treatment coverage and prevention of mother to child transmission services, there was a decline in the number of new infections from 78,000 in 2010 to 44,000 in 2016. There was also a reduction of deaths from AIDS-related illnesses from 61,000 in 2013 to 30,000 in 2016, (UNAIDS Data 2017). Of the young people aged 15-24 in Zimbabwe, 13.5 percent is living with HIV, **(**Young people, HIV 2018).

Only 45 percent of young women and 62 percent of young men have ever been tested for HIV and prevalence among this group is likely to be significantly higher. However, as only 64% of young women (15-24) and 47.5% of young men have ever tested for HIV, prevalence among this group could be significantly higher. Comprehensive knowledge of HIV is available to only 46 percent of young women and 47 percent of young men, thereby limiting their ability to engage in safer sex. Young people who do not know where to get a condom are much less likely to have had sex compared to those who know where to get a condom. This suggests that people in this group understand the risks involved in not using a condom

Sexual relationships with wide age differences are common in Sub-Saharan African countries, (HIV and AIDS). In 2015, 17 percent of young women aged 15-19 in Zimbabwe reported having had sex with a man 10 years older. Daka *et al.* (2017:123) argue that

> "this situation is caused by several factors, including the 'sugar daddy' practice, having sex with older men for socio-economic reasons, sexual experimentation, unprotected casual sex, and similar HIV high-risk activities that contribute to a greater or lesser degree to the transmission of the infection. The 'sugar-daddy' culture contributes to an elevated risk of HIV infection for young women as they are exposed to older men who are more likely to have HIV, or are more dominant in the relationship".

Because older men are more dominant, they may end up having unprotected sex with several women. This culture contributes to the HIV AIDS infection rates among the 18-24 age group.

In Harare, HIV/AIDS is a huge challenge for young people since it affects them socially, politically and economically. Young people living with HIV/AIDS require significant medical care, and a decline in life expectancy affects the workforce, which results in HIV/AIDS having a negative impact on economic development. It is also difficult to replace the high-skilled labour within a short space of time.

This study will focus on the roles of social media in disseminating HIV/AIDS information among young people, 18-24 years of age in Harare. As the capital city of Zimbabwe, Harare was chosen for the study. By February 2018, the population of Harare was 1,542,813 people. Bulawayo has 699,385, Chitungwiza has 340,360, Mutare 184,205 and Gweru 146,073 (Population of

Cities in Zimbabwe 2018). Harare is the business hub of Zimbabwe, but has been adversely affected by the political and economic crisis. Before the economic crisis, Harare used to be a hub of rail and road transport, it is also the centre of Zimbabwe's industry and commerce (Harare, National capital 2018). Harare, with the largest population, may therefore, have the greatest concentration of social media use as compared to other cities in Zimbabwe. Research on Harare has the potential to shape policy in disseminating HIV/AIDS information to young people in other cities in Zimbabwe.

1.1 ICTs and the dissemination of HIV/AIDS information

There is growing evidence that Information and Communication Technologies (ICTs) can be powerful tools, and when managed effectively can strengthen the impact of health and development initiatives. ICT has become indispensable to health workers as the volume and complexity of knowledge and information have outstripped the ability of health professionals to function optimally without the support of information management tools.

The government of Zimbabwe has recognised the development, growth and application of ICTs as indispensable since Independence in 1980 (see 3.3). The Zimbabwe E-Health Strategy 2012-2017 also acknowledges that ICTs can transform the way health care is delivered, and the way health systems are run (see 3.4.2).

Efforts to disseminate HIV/AIDS information for prevention and treatment to this target group via ICTs have been made (see 3.4.2 and 3.5.1). While the impact of ICTs on various initiatives is well documented, (see Chapter 3), there is a small but growing body of research on the usage of social media among young people to improve HIV/AIDS prevention and to provide HIV/AIDS

interventions. Successful ICT initiatives in disseminating HIV/AIDS information have been registered (see Chapter 3). ICTs have the potential to effectively disseminate HIV/AIDS information to educate and reduce the spread of the disease, but a proper and comprehensive assessment of its impact and effectiveness in Zimbabwe is still required. As the applications of ICT continue to widen and new technologies are introduced, it becomes necessary to investigate the actual and potential roles of social media in disseminating HIV/AIDS information to young people aged 18-24 in Harare. Some examples elsewhere demonstrate their value.

In India, Sharma and Shukla (2016) carried out a study on the impact of social messengers especially WhatsApp on youth. Young people in the Gwalior region use WhatsApp mainly for communication, and to update their status. Sharma and Shukla (2016), argue that features like Link Preview and Custom Notification and the great speed in sending and receiving messages are value added services of WhatsApp. This makes WhatsApp more popular among the youth.

Examples that focus on young people and social media include Kenya, Nigeria and other countries in Sub-Saharan Africa. Aba, Aderibigbe & Olubunmi (2014), investigated the importance of social media in HIV prevention among young unmarried tertiary graduates between the ages of 15 to 35 in Abuja Nigeria on Facebook from 9 August 2010 to 30 April, 2014. Facebook was the most utilised social media site while Twitter and Google+ were other important social media sites. The results from the study show that a large number of Nigerian youth can obtain important HIV information through social media. Social media provides a platform to accelerate access to public health information messages to the huge population of Nigerian youth.

More relevant to this study, Mwabili (2017) conducted a study on the consumption of HIV/AIDS communication on social media among engineering students at the University of Nairobi, Kenya. The objective was to identify the types of social media preferred by the youth. The results showed that social media provide more opportunities for HIV/AIDS communication and that Facebook and YouTube were the most preferred social media platforms in seeking HIV/AIDS information.

There has been a general increase in the number of people using mobile phones in Sub-Saharan Africa. Statistics from Analysys Mason indicate that the Sub-Saharan Africa telecoms services market will be worth $51 billion in 2021, up from $41 billion in 2015. Mobile services in the region will represent more than 88.4 per cent of the telecoms service revenue in 2021 (15 Statistics that 2016). According to the World Bank, Sub-Saharan Africa is now home to approximately 650 million mobile phone subscribers, a number that surpasses the United States and European Union, and that represents an explosion of new communication technologies that are being tailored to the developing world (Mobile phones transform 2013).

Sub-Saharan Africa had 367 million unique subscribers and 680 million connections excluding machine to machine (M2M) as of the second quarter of 2015. The region's subscriber base recorded the fastest growth during the first half of this decade, with compound annual growth rate (CAGR) of 13 percent compared to the global CAGR of 6 percent over the same period. This was partly due to low base effect, with less than a quarter of the population having a mobile subscription in 2010. Sub-Saharan Africa overtook Latin America in terms of unique subscribers during 2014 to become the third biggest region, behind Asia Pacific and Europe, and now accounts for 10 percent of the global subscriber base (GSM communication Association Sub-Saharan Africa 2015

(The Mobile Economy 2015).

According to Ngwainmbi, (2017), the assumption is that young people age 18-35 in both developed and developing countries rely on social media when communicating issues to do with rage, love, worries and sympathies. The author asserts that most young people in poor countries now have access to Android phones. The study investigated which device young people in two cities in Cameroon and South Africa preferred to use in their understanding of and participation in the globalisation process. The study showed that i-phones were heavily used by young people in accessing foreign news and entertainment in this age group.

According to Shava & Chimyamurindi (2018), Facebook remains the most popular social networking site in South Africa, followed by YouTube and Twitter. The two authors argue that studies have reviewed that youth are able to utilise and adopt ICTs faster than other people. Results from a study by the two authors on use of social media among 447 social media users' youths in a rural community in the Eastern Cape Province of South Africa show that, for most youth, it has become a habit and an obligation to use Facebook and that Facebook is used for knowledge sharing.

A study on mHealth and young people was carried out in South Africa between November and 2015. Primary data were collected through focus group discussions with young people and an online survey of young people. Furthermore, key informant were interviews conducted with individuals involved in the development of the various mHealth services documented in the review. The study found that young people in urban and rural areas use their mobile phones regularly for communicating socially, including seeking information on career advice, entertainment, education and research and health.

Eighty-four percent of young people expressed willingness and openness to obtaining sexual health information using their mobile phones, if it was free (mHealth and Young People 2015).

Batane (2013) carried out a study to investigate Internet use by young people in Botswana as well as investigating what the young people used the Internet for. The study found out that from the 117 colleges that participated in the research, young people used 75% of their Internet time on communication and entertainment. In another book chapter, Batane (2014) explores the effects of social media in influencing the behavior of young people in relation to HIV/AIDS through an online discussion forum. The findings of the study indicate that there is a significant change in the behaviour of participants in relation to HIV/AIDS due to the use of the online forum. The study recommends that more efforts need to be directed to the use of various technologies that young people have at their disposal in the fight against HIV/AIDS as this can be very cheap and effective.

Studies show that Zimbabwe has one of the highest rates of mobile phone ownership in sub-Saharan Africa. Just one provider, Econet Wireless Zimbabwe, claims to have more than 8 million subscribers, (Lazuta 2013). Given this impressive access rate, Zimbabwe is already working with ICTs to provide information on HIV/AIDS. However, there are not many studies on exactly which social media is used by young people in Zimbabwe. This means that the use of social media in disseminating HIV/AIDS is not yet fully understood and exploited. For more information on projects and programmes (see Chapter 2).

Social media platforms like Facebook, Twitter and WhatsApp are powerful

channels for disseminating information, but there are however different models of disseminating HIV/AIDS information that elaborate some of the roles of social media.

1.2 Models of Disseminating HIV/AIDS Information

Social media can be applied to formal and informal education, thus emphasising the formal or informal educational roles of social media. In other models, social media networks provide an avenue for affordable cost and sustainable HIV prevention interventions that can be adapted and translated into diverse populations.

There are different models of disseminating HIV/AIDS information in the literature. These include the Educational Model, Community-Wide Dissemination Model, Mass Model, Internet HIV/AIDS Prevention Model, or Animals in Research Models and Marketing Model. Elaboration on these models is found in Chapter 2.

Beyond urban areas, community-wide dissemination efforts are also essential to make sure that HIV/AIDS prevention and treatment programmes are successful. The Web site hosted by The Measurement Group uses the Internet as a tool to disseminate information about innovative HIV/AIDS prevention and treatment models. The Measurement Group Web site has captured the attention of several users world-wide in its goal of disseminating new information about innovative models of HIV services to a wide audience (Huba, *et al.* 1998).

Evans and Silvestri (2013) argue that the extensive use of animal models made key advances in HIV/AIDS research possible (See Chapter 2 on elaboration of the above-mentioned models). Social media can also play marketing roles.

(Rural Health Information 2002-2019). Detailed discussion of these models are in Chapter 2.

Social media platforms, including social networking sites, are being used increasingly as part of human immunodeficiency virus (HIV) prevention and treatment efforts. Because of the stigma associated with HIV, models in many studies reported the importance of anonymity when social media platforms are used. The ability to share and receive information about HIV was the most commonly reported benefit of social media use (Taggart, 2015). Thus, all the models face this challenge of anonymity and privacy, and this is technology-related.

From the literature, there is ample evidence of the potential roles that social media can play. The different models elaborate the distinctive roles that social media can address in disseminating information about several aspects and challenges related to HIV/AIDS. What makes this study distinctive is that it will concentrate on producing the most suitable model and formulate the appropriate roles for social media to improve the dissemination of HIV/AIDS to young people aged 18-24 in an African urban centre like Harare.

1.3 Main Research Question

In order to address the problem situation sketched in the previous sections (see 1.1), the following main research question has been formulated:

Which model and what roles for social media will improve the dissemination of HIV/AIDS information to young people aged 18-24 in Harare?

1.3.1 Research Sub-Questions

In order to answer the main question, the following sub-questions have been formulated:

- How has HIV/AIDS information been disseminated to young people?
- How has HIV/AIDS information been disseminated in Zimbabwe in general, and to the 18-24 age group in Harare in particular?
- Which social media does the 18-24 age group in Harare prefer to access HIV/AIDS information?
- Which model is most suitable and what roles can social media play to improve the dissemination of HIV/AIDS information to the 18-24 age group in Harare?

- What are the most important elements and features of a programme for improving the dissemination of HIV/AIDS information to the 18-24 age group in Harare?

1.4 Research Methodology

Chapter 4 on research methodology outlines procedures in collecting primary and secondary data. It also specifies the rationale in choosing the study area as well as describing the study sample, sampling procedures, ethical considerations, data collection and data analysis.

1.4.1 Literature Review

A literature review was one of the research instruments because it can provide valuable information related to knowledge gaps in previous research. The method can also be used to understand how the topic has been investigated, and it can establish a knowledge base for this study. There was a dedicated effort to

search for the most recent information published between 2015 and 2017. The following databases were consulted:

- ACM Digital Library,
- EBSCOHost,
- Library and Information Science Collection,
- Library and Information Science Source,
- Library Science Database,
- MEDLINE (web of science) and,
- Proquest.

The nature of the field is such that there is not a lot of literature on the subject. Lack of current literature on the subject is evident in Chapter 2.

To acknowledge the contribution of previous works, Literature review was used to identify previous research and development work related to the use of social media in disseminating HIV/AIDs information to young people.

Secondary data sources were also used for data collection. Statistics from organisations such as UNAIDS, World Health Organisation (WHO), the World Bank, Zimbabwe National Statistics Agency (ZimStat) and even previous surveys are vital to enrich this research. Some of the information was collected from the Internet.

1.4.2 Target group and sampling

The target group for this study consisted of young people aged 18-24 in Harare. This age group was chosen because, according to The Legal Age of Majority

Act 1982 (No 15 of 1982), the age of eighteen years is the legal age of majority in Zimbabwe. A fuller discussion of the research methodology is provided in Chapter 4.

Random sampling procedure was used to select students from the ten faculties of the University of Zimbabwe. Random sampling was also used to distribute questionnaires to ages 18-24 in the forty six (46) wards in the different low and high density areas in Harare. A random sample allows a known probability that each elementary unit will be chosen (See Chapter 4). University of Zimbabwe students ranging from 18-24 years as well as young people in this age group from both high and low density areas in Harare were part of the sample. Approval to conduct the research at the University of Zimbabwe was sought from the University Registrar.

1.4.3 Data Collection Methods

Both quantitative and qualitative methods were used in the collection of data. With the use of these two approaches, comprehensive and detailed responses about social media and dissemination of HIV/AIDS information to the 18-24 age group in Harare were obtained.

Surveys were conducted in order to collect data. Self-administered questionnaires were used as a tool to enable the researcher to collect data by asking the target group questions or by asking them to agree or disagree with statements representing different points of view. Questionnaires are regarded as flexible data collection tools, especially the semi-structured questionnaire that involves using both open-ended and closed-ended questions. The open-ended questions in this study allowed respondents to supply their own answers, thereby permitting greater depth of meaning. The closed-ended questions

allowed respondents to select answers from a list of responses provided for them by the researcher.

The 46 wards were distributed among the researcher and the Assistant Researchers based on location of where the three live. Questionnaires were mainly distributed at shopping centres and Internet cafes. Participants were requested to fill in the questionnaires at the point of distribution. To provide more insight and detail into certain aspects addressed in the questionnaire, this was followed by focus group interviews, in the form of focus group discussions (FGD) with the researchers. Each group of participants would have a minimum of six and a maximum of 10 participants. The Research Assistants selected groups of young men and women to recruit for the discussions based on a few preliminary questions to establish their suitability.

Participants were put in groups of Interviews and focus groups (also referred to as "group interviews") allow for information to be provided orally, either individually or in a group setting. The data can be recorded in a wide variety of ways including written notes, audio recording and video recording. Focus group interviews allow for multiple narratives to be voiced in one "interview" about a research topic of interest.

To provide detail and insight on how organisations dealing with HIV/AIDS in Harare are currently disseminating HIV/AIDS information, the researcher conducted interviews with representatives of HIV/AIDS organisations in Harare.

1.4.4 Data Analysis Techniques

The Statistical Package for Social Sciences (SPSS) Software was used for the analysis of the results. Other researchers carrying out similar studies on HIV

and AIDs have also used SPSS and have found it to be user friendly and easy to use. In addition, it was also easily accessible to the researcher. Since SPSS is not a qualitative data analyser, data had to be coded before being captured into SPSS. Frequencies, percentages and descriptive statistics were used throughout the analysis.

1.4.5 Ethical Considerations

Participants were informed about the nature and the purpose of the research. A consent form was made available to participants in order to achieve voluntary informed participation. Participants were also informed about the objectives of the study as well as what they were expected to do. Above all, participants were told whether there are benefits or risks in the study.

An application to carry out this research was submitted to the University of Pretoria, Faculty of Engineering, Built Environment and Information Technology Ethics Committee (EBIT Ethics Committee) for approval (See Chapter 4).

1.4.6 Selection of the Study Site

The study area was Harare. The researcher was able to collect valuable data considering that the majority of young people had access to ICT and therefore were likely to be using social media.

1.4.7 Study Sample

The study sample included young people aged 18-24 years from low and high density suburbs in Harare and students from the University of Zimbabwe (see Chapter 4).

1.5 Values of the Study

The values of the study are that:

- This study will fill research gaps relating to the roles social media can play in increasing HIV/AIDS awareness and disseminating information on HIV/AIDS to the young people aged 18-24 years in Harare.
- The study will provide the knowledge on how social media platforms can effectively overcome some of the challenges of raising awareness and effectively disseminating information about HIV/AIDS to the young people in Harare.
- The study will result in the design of an effective and evidence-supported HIV/AIDS awareness programme for young people aged 18-24 using social media.

1.5.1 Limitations of the Study

Some limitations of this study are that:

- Findings of this study may not be generalised to other young people aged 18-24 in other developing countries in Southern Africa, although they may be useful to researchers conducting related and similar investigations.
- The findings cannot generalise use of social media as a preferred avenue to access information on HIV/AIDS by young people aged 18-24 as it will only address young people aged 18-24 in Harare. Social media can be used by young people aged 18-24 to access other types of information.
- There is limited literature available in the Zimbabwean context, with reference to social media usage. Many studies were done in other countries and not in Zimbabwe.

- Current research has concentrated on the positive aspects of social media. In future, researchers should do a study on both the pros and cons of social media.

1.5.2 Key terms used in the study

Social Media:

For the purpose of this study, social media is an "umbrella term referring to the media one uses to involve oneself in social interaction through connecting with other users online" (Chou *et al*. 2009; Kaplan & Haenlein, 2010; Romero, Galuba, Asur & Huberman, 2011).

Online Social Networks (OSN):

A social network is an ecosystem consisting of a number of entities. These entities include, but are not limited to, users, the OSN service provider, third party applications and advertisers. However, the primary stakeholders of this ecosystem are the users (who receive various social networking services) and OSN providers who provide those social networking services (Kayes & Lamnitchi 2017). For this study, the terms Online Social Networks and Social Media will be used interchangeably.

HIV:

HIV is the acronym or abbreviation for Human Immune-deficiency Virus. You can see we are talking about a **virus**. This particular virus is found only in **human** beings and infects only humans. The virus damages the **immune** system to such an extent that it can no longer effectively protect the body against other infections. This damage leaves the immune system **deficient** or short of something it needs in order to protect the body (What is the meaning of HIV 2007). HIV is a virus that attacks the immune system. If untreated, a person's immune system will eventually be completely destroyed.

AIDS:

AIDS is the acronym or abbreviation for Acquired Immune Deficiency Syndrome. The first thing that must happen is the virus must come from somewhere or someone, it must be acquired. You acquire or get something when you did not have it before

In the context of AIDS this means that the Immune-deficiency syndrome, or the deficiency in the immune system, was not present in the human body previously body (What is the meaning of HIV 2007). AIDS refers to a set of symptoms and illnesses that occur at the very final stage of HIV infection. For the purpose of this study AIDS is Acquired Immune Deficiency Syndrome. Acquired means an individual can catch the virus, Immune Deficiency means that, in the body's system that fights against diseases, there is a weakness and the body is now prone to opportunistic diseases; Syndrome refers to a group of health problems that make up a disease.

Information Dissemination:

Active distribution and the spreading of information of all kinds is called dissemination of information. It concerns metadata as well as primary sources. This service is offered by libraries and other information agencies to defined target groups or individuals whose particular information requirements must have been previously determined. In this case the term selective dissemination of information (SDI) is frequently used. Its goal is to supply customers with all the latest information exclusively relevant for them (Feather, J. & Sturges, P. eds. 2003).

In this study, information dissemination is a systematic way of giving out relevant information to the target group and it is convenient to both the distributor and the receiver.

Young People:

For the purpose of this study, young people are persons aged 18-24 in Harare. This is the legal age of majority in Zimbabwe, according to The Legal Age of Majority Act 1982 (No 15 of 1982).

1.5.3 Division of Chapters

Chapter 1-Introduction

The introduction includes a brief background to the study and justification for the relevance of the study. A review is provided.

Chapter 2-Literature Review

This chapter expounds on the literature currently available concerning the topic of the study and a review of the different opinions, views and facts as presented by different authors. This allows an understanding of the information available as well as an understanding of which gap the research will fill.

Chapter 3-ICT Initiatives

This chapter outlines some of the initiatives in which ICTs have been used in communicating health information as well as in the fight against HIV/AIDS in Asia, India, and Africa. The main focus are ICT initiatives in Zimbabwe, bringing out what is being done to utilize ICTs in the fight against HIV and AIDS. The strategies in all these initiatives can be adapted to fight HIV/AIDS for the benefit of young people aged 18-24 in Harare.

Chapter 4-Research Methodology

This chapter explains and justifies the research methods and techniques selected for the study including the research instruments, data collection, data analysis method and the target groups.

Chapter 5- Analysis and Data Interpretation

This chapter synthesises the data gathered in order to and makes inferences that address the research question.

Chapter 6- Proposed Model

A critique to the current models of disseminating HIV/AIDS information and a proposed model for HIV/AIDS information dissemination among young people aged 18-24 in Harare are presented in this chapter.

Chapter 7-Findings, Recommendations and Conclusion

The findings, recommendations and conclusion are presented in this chapter.

CHAPTER 2

Literature Review: Health Policies, eHealth & HIV and AIDS

2.1 HIV/AIDS in general

According to UNICEF, nurturing the tide against AIDS will require a more concentrated focus on adolescents and young people. UNICEF argues that adolescents and young people represent a growing share of people living with

HIV worldwide. In 2016 alone, 610,000 young people between the ages of 15 to 24 were newly infected with HIV, of whom 260,000 were adolescents between the ages of 15 and 19. To compound this, the most recent data indicate that only 15 per cent of adolescent girls and 10 per cent of adolescent boys aged 15-19 in sub-Saharan Africa – the region most affected by HIV – have been tested for HIV in the past 12 months and received the result of the last test. If current trends continue, hundreds of thousands more will become HIV-positive in the coming years. Additionally, AIDS-related deaths among adolescents have increased over the past decade while decreasing among all other age groups, which can be largely attributed to a generation of children infected with HIV prenatally who are growing into adolescence (Adolescence HIV Prevention 2018).

In 2015, a new global strategy was launched which aims to end the AIDS epidemic by 2030. To achieve this, it is critical to accelerate efforts to address the epidemic among adolescents. As a result, the ALL IN! to End Adolescent AIDS was launched in early 2015 in partnership with other international health and development partners (Adolescence HIV Prevention 2018).

UNAIDS 2016 estimates indicate that 36.7 million people were living with HIV, as compared to 33.2 million in 2010. Tens of millions of people have died of AIDS-related causes since the beginning of the epidemic. While new cases were reported in all regions of the world, about two-thirds were found in sub-Saharan Africa. Eastern and Southern Africa constitute 43 percent of the new cases. Many people living with HIV or at risk of HIV do not have access to prevention, care, and treatment, and there is still no cure. HIV primarily affects those in their most productive years of which a third of new infections are among young people aged 15-24. (HIV and AIDS 2017). Traditional forms of

health information dissemination have previously involved a few key organisations originating health-related information, and disseminating this to clinicians and the community. This information was typically disseminated via private, formalised and non-digital interactions between health information sources, clinicians and consumers. With the introduction of the Internet, Web-based health information dissemination led to some changes with greater availability of online health information. However, the recent adoption and uptake of social media has led to many more parties, both organisations of varying types and individuals, participating in public health information dissemination; and this has also led to new forms of sharing health-related information, particularly involving a greater role for individuals (Dumbrell & Steele, 2013).

Dissemination of health information and distribution of health care products are changing rapidly. For many years patients would consult health professionals to acquire information about the latest medicine. Social networking sites like Twitter have empowered disenfranchised patients and lowered the barriers of exchanging health information and accessing medicine (An *et al*.2014). Rice *et al.* (2010) share the view that social media sites have lowered barriers of exchanging information, and they go further to say that social media sites are largely visited by youth, those most at risk of STI/HIV infection. According to Rietmeijer and McFarlane (2009), Facebook receives exceedingly more visits in a month than CDC or HIV testing sites. It is therefore critical to investigate the potential of social media sites to deliver HIV/AIDS prevention messages.

2.2 Development of Health Policies in Africa

According to the WHO, in developing health policies in Africa, the focus was on orienting countries in the development of the formulation of their National Health policies through availing guidelines and tools, providing integrated and coordinated approaches (leadership, advice, partnership) to countries in developing their National Health policies and building capacities within the Ministries of Health (in collaboration with units in DSD and other AFRO Divisions) for policy dialogue analysis, policy formulation (Health Policies and Service 2017). In 2008 the WHO Regional Office for Africa organised an International conference on Primary Health Care and Health Systems. This was successfully organised by WHO, UNICEF, UNFPA, UNAIDS, AfDB and the World Bank and hosted by the Government of Burkina Faso. The conference was attended by over six hundred participants from the forty-six Member States of the African Region and outside Africa. Two documents AFR/PHC/08/1 (Discussion Paper) And AFR/PHC/08/2 (Summaries of Country Experiences on Primary Health Care Revitalisation) were produced and shared among participants (Health Policies and Service 2017)

According to Health Policy Development: WHO/Regional Office for Africa, Member States strongly endorsed the values and principles of PHC. The Conference adopted the "Ouagadougou Declaration on Primary Health Care and Health Systems in Africa: achieving Better Health for Africa in the New Millennium". This declaration was endorsed by the 58th Regional Committee which also adopted the related Resolution AFR/RC58/R3. A generic Framework for the implementation of this Declaration has been prepared, building on the priority areas highlighted in the Declaration as well as other policies and goals related to health development.

Within the context of implementing the Declaration, some African countries started the process of revitalisation of PHC including community-based health services. Other countries strengthened capacities of their district health systems in areas such as planning, management, integration of activities, supervision, and monitoring and evaluation. Congo, Ethiopia and Mauritius developed tools and or reviewed their essential health packages to concentrate scarce resources on high-impact interventions. Niger developed a strategy on quality assurance, and Madagascar undertook District Health Systems Rapid assessment.

The WHO Regional Office for Africa continued to provide support to Member States to revise or develop their national health policy and strategic plans. The Regional Office also continued to provide technical support on policy formulation to countries. The process of developing these National Health policies is improving through a more inclusive approach involving all relevant stockholders active in the health development. However, efforts have to be made to strengthen the capacity of countries in policy analysis (Health Policies and Service 2017)

2.2.1 Development of Health Policies in Sub-Saharan Africa

According to Collier (2007) world-wide there is a growing realisation that health is an integral part of sustainable development efforts. Collier (2007), states that the critical importance of health among populations is also being recognised in foreign policy circles, in economic development discussions and within the context of socio-cultural issues of all countries, low, middle and high income. Collier (2007) further states that the sea of change regarding the clout of health as an integral part of development is more noticeable in the developing world.

Oluwole (2008) states that the role of health in development has grown rapidly in sub-Saharan Africa. Sub-Saharan Africa has witnessed increased resources for health, even in the poorest countries. Oluwole (2008) observes that while this is a welcome development, these resources have induced huge stresses on a small health workforce and limited organisational capabilities due to the paucity of capacities for planning and management of these resources. Oluwole (2008) asserts that the majority of people living in Africa continue to be trapped in poverty, conflict, poor governance and poorly performing health systems. The situation is made worse by the skewed resources flow for HIV and AIDS to the neglect of other priority health problems in many countries. Despite the additional flow of national and international resources to health in Africa, sub-Saharan Africa continues to bear the brunt of a double, possibly triple, burden of disease.

According to Oluwole (2008) domestic and international health policies in sub-Saharan Africa have been shaped and influenced by multiple international agreements and policies. These include the Alma Ata Declaration of 1978; World Bank IMF Structural Adjustment Program in the health sector of 1987; WHO Bamako initiative in 1987; United Nations Millennium Declaration/Development Goals in 2000; Paris Declaration of 2005; and the second primary health care revolution of 2006.

One of the most influential international declarations on health is the Alma Ata-the Birth of Primary Health Care (PMC). The Declaration of Alma-Ata formally adopted PMC as the means for providing a comprehensive universal, adequate and affordable health care service for all countries. The declaration of Alma-Ata was unanimously adopted by all WHO Member countries at Alma-Ata in the former Kazak Soviet Republic in September 1978 (Declaration of Alma-Ata. International Conference on Primary Health Care, Alma-Ata, USSR, 6-12

September 1978) **(**Oluwole 2008). According to the WHO, in its document entitled "Global Strategy for health for all by the year 2000", PHC is essential health care based on practical, scientifically sound, and socially acceptable methods and technology that is universally accessible to individuals and families in the community. PHC must be affordable to the community and the country in order to maintain continued development in the spirit of self-reliance and self-determination. PHC forms an integral part of a country's health system, of which it is the central function and main focus, of the overall social and economic development of the community. PHC is the first level of contact for individuals, the family, and community with the national health system; bringing health care as close as possible to where the people live and work, and constitutes the first component in a continuing health care process.

Furthermore, according to the WHO, village health workers were to be trained and used as a formal part of the health care system where western trained doctors and nurses were not available. Governments, WHO, UNICEF and other international organisations, funding agencies, all health workers and the entire world community were expected to protect and promote the health of all people; support national interested commitment to PHC and channel increased technical and financial support to it, especially in developing countries. The central government transferred responsibilities, authority functions as well as power and some resources to provincial, district and sub-district levels (WHO: Global Strategy 1981).

Despite all the efforts mentioned above, PHC did not achieve Health-For-All by the Year 2000. Some of the reasons why PHC failed were that the majority of people felt that PHC was a cheap form of health care. As a result, some bypassed this level and visited secondary and tertiary centres because of a lack of staff and essential medicines at PHC level. Civil war, natural disasters and

more recently, HIV, affected the ability of PHC to maintain quality comprehensive services, especially in many sub-Saharan countries. Political commitment was not sustained after the critical euphoria of Alma-Ata. Most health care resources continued to be directed to the large urban based hospitals (The World Health Report 2000-Health Systems: improving performance).

The World Health Report 2000-Health Systems: improving performance, marked the end of the WHO's use of PHC as the means for the delivery of health care services in resource-poor countries. According to the World Report 2000, inadequate funding combined with insufficient training and equipment for health care workers at all levels contributed to the failure of PHC to achieve its goal.

Another influential international policy that impacted on health-care delivery in sub-Saharan Africa is the Structural Adjustment Program (SAP) which was adopted by forty countries in Africa. Structural Adjustment policies may result in governments reducing public health expenditure. The impact of SAP had been negative in terms of state of health, food security and access to care. SAP had a major impact on the "brain-drain" of Africa's health work force, both to the west and to the other affluent African countries, which in turn severely hampered the capacity of national governments to adequately fight HIV and AIDS or significantly address other Millennium Development Goals (MDGs) (Mladovsky *et al.* 2012; Reeves *et al.* 2013).

Seeing that the SAP had failed, the Bamako Initiative was launched in 1987 to meet the growing crisis of scarcity of drugs and reduced access to quality health care (Stewart & Cornia 1992). The Bamako Initiative was built on eight principles, amongst them, improving PHC for all; equity; decentralizing management of PHC services to district level; high commitment from

governments to maintain and expand PHC service; ensuring the poorest have access to PHC: pro-poor policy.

The Bamako Initiative was adopted by many countries. Quality of care improved and services were more efficient. Community health resources were managed locally through joint micro planning and monitoring, involving health personnel and village committees (Knippenberg *et al*: 1997).

The Bamako Initiative was donor-driven with limited coverage. There were logistical, financial and quality control issues at operational community levels. In addition, governments and donors got involved in implementation rather than focusing on policy matters (Kuchler, 2002).

The PHC, Bamako Initiative and other international initiatives were not successful in improving access and quality of healthcare in sub-Saharan Africa and other developing regions in the late 1980s and early 1990s. As a result, alternatives to health policy making had to be adopted. This led to the *World Bank's World Development Report 1993: Investing in health* (World development report 1993: Investing in health).

There was little use of the term "Primary Health Care". The report considered the delivery of health care services in terms of the economic benefit that improved health could deliver. According to Hall and Richard (2000), The World Bank's World Development Report of 1993 focused primarily on health care sector activities to improve health and gave scant recognition to the role of other sectors, which contract with the original PHC's multi-sectional approach.

The World Bank approach became known as Health Sector Reform. Health Sector Reform emphasised using the private sector to deliver health care services while reducing or removing government services. Focus for delivery

health care services was on user paying, cost recovery, private health insurance and public-private partnerships.

In order to gain political support and establish verifiable benchmarks as well as gaining support of all nations, the United Nations Millennium Development Declaration became a rallying call to improve health in all parts of the world. The Millennium Declaration focused on broad, multi-sectorial approach to development, health included. The eight millennium development goals were:

- Eradicate extreme poverty and hunger;
- Achieve universal primary education;
- Promote gender equality and empower women, reduce child mortality;
- Improve maternal health, combat HIV/AIDS, malaria and other diseases;
- Ensure environmental sustainability, and
- Develop a global partnership for development (United Nations Millenniun Development Goals).

Although there have been major gains in several areas of the MDGs, some of the best governed countries on the continent have not been able to make sufficient progress in reducing extreme poverty. Maternal health remains a regional and global challenge with odds that a sub-Saharan African woman will die from complications of pregnancy and childbirth.

Various funds and initiatives were created in response to the call for increased health development. These included Global Fund against AIDS, TB and malaria (GFATM), US President's Malaria Initiative (PM), US President's Emergency Fund for AIDS Relief (PEPFAR). The funds resulted in the new rounds of national health sector revision of existing ones. However, conditions attached to the new round of funds created tensions with recipient nations.

The 2005 Paris High Level Forum convened to address the problem of aid or development assistance effectiveness. Developing countries were to exercise effective leadership over their development policies strategies and were to coordinate development actions. Countries were to manage resources and improve decision making for results and donor developing countries pledged that they would be mutually accountable for development results (Oluwole, 2008).

According to Oluwole (2008), there is no dearth of international agreements, national policies and strategies in sub-Saharan Africa. Many countries were off track for the attainment of the MDGs while some will not attain them until 2050 or beyond due to poor performing health systems, the growing health workforce crisis and pervasive challenge of scaling up to achieve universal access to health care. The critical challenge for countries in sub-Saharan Africa is to move from policy to action in the health sector. This move from policy to action should be grounded on each country addressing its priority health needs and mobilising its people to improve the state of health at personal and community levels. The need also exists to ensure that health programmes receive adequate funding and that health systems are monitored and evaluated in a transparent manner.

In order for sub-Sahara Africa to overcome its health problems, governments, the private sector and the civil society should work together to develop and implement equitable health systems that serve the needs of all citizens, including those living in extreme poverty.

2.3 Health Policy in Zimbabwe

According to Sanders *et al.* (1998), prior to independence, millions of people on the geographic or social periphery of African countries received either marginal health care or none at all. Colonial health systems channelled resources to urban

dwellers and white settlers at the expense of the predominantly black rural populations who had the greatest need.

Sanders (1998) states that when Zimbabwe gained independence in 1980, 44 percent of the public funds for health services were channelled to urban central hospitals serving 15 percent of the population, while only 24 percent of funds were dedicated to rural areas where 77 percent of the population lived. Walt (1990) states that the promise of health services for all mobilised political support for post-colonial governments. Some of the less-developed countries like Zimbabwe instituted Primary Health Care systems and developed a pyramid referral model to support the primary care levels. Clinics and district hospitals were intended to provide local services for uncomplicated cases, referring patients with more serious conditions to regional/provincial hospitals.

According to Nyazema (2010), historically, health care in Zimbabwe was provided primarily to cater for colonial administrators and expatriates, with separate and second class provision made for Africans. Nyazema (2010) goes on to state that the health system has a vital and continuing responsibility to people throughout their life-span and is crucial to the healthy development of individuals, families and the society.

2.3.1 Health Policy/Strategy Development in Zimbabwe

At independence in 1980, Zimbabwe adopted the concept of Equity in Health and Primary Health Care whose key attributes included amongst others, health promotion and community mobilisation through villager/farm health worker, investment in primary health care infrastructure, that is, clinics and health centres. This resulted in 85 percent of the population being within over one hour

travel time to the nearest health facility. There was expansion of secondary health care through district and provincial level hospitals. There was also development of major national public health programmes in the areas of maternal and child health and communicable disease control, investing in high quality training and development of competent Zimbabwean health professionals. Adoption of the concept of Equity in Health and Primary Health Care resulted in establishing an Essential Drug List for Zimbabwe and promoting a high level of public literacy and basic education (Chatora 1995).

According to the Impact of World Bank Support to the HNP Sector in Zimbabwe, Report No. 18141, in the decade following independence in 1980, Zimbabwe experienced some of the most rapid improvements in health, nutrition and population (HNP) indicators in all of sub-Saharan Africa. Infant mortality declined from 90 per thousand in 1980 to 53 per thousand in 1988. Household incomes increased only modestly during this period, however, suggesting that the government's strong emphasis on basic health and family planning services, health education, and community outreach holstered by a strong focus on prevention, were responsible for the improvements

In the 1990s, health and health service indicators stagnated or declined under the combined burdens of AIDS, economic crisis and drought although fertility continued to decline. HIV/AIDS became a public health crisis that changed the delivery of health services in Zimbabwe. After a decade of decline, both infant and adult mortality are increasing, as are opportunistic infections such as tuberculosis. Although economic crisis may have a role in weakening the health system, these increases in mortality are primarily attributable to AIDS. As such, the population growth for Zimbabwe is still expected to reach replacement levels by 2020 due to HIV/AIDS and reduced fertility (The Zimbabwe Demographic Health 2005/06).

In 1991, Zimbabwe embarked on the Economic Structural Adjustment Programme (ESAP) which liberalised the economy but failed to control the government's budget deficit which has averaged nearly 10 percent of GDP annually since independence. Economic liberalisation without deficit reduction contributed to economic stagnation and limited job creation. Although both the government and the World Bank tried to protect spending for health and education, large budget deficits fuelled inflation and led to growing interest payments, which contributed to declines in real health spending and real wages for health workers. Although health workers were protected from retrenchments, downsizing of Ministry of Health (MOH) administrative and maintenance staff reduced efficiency and added to morale problems without generating significant savings.

According to Nyazema (2010) as a result of ESAP between 1991 and 1995, inequalities arose due to the introduction of fee paying for health services, inability to maintain the confidence of a highly professional health workforce that moved away from the public health sector and inability to maintain health financing in relation to escalating inflation. A situation analysis of the health sector carried in the late 90s resulted in the formulation of the National Health Strategy for Zimbabwe, 1997-2007: Working for Quality and Equity in Health, whose major thrust was to improve the quality of life of Zimbabweans.

In 2008 the new strategy should have been launched. However in 2008 the country also experienced the peak of the economic crisis resulting in a sharp decrease in funding for social services by both government and development partners. This directly contributed towards an unprecedented deterioration of health infrastructure, loss of experienced health professionals, drug shortages and a drastic decline in the quality of public health services. In February 2009, an Inclusive Government was formed and one of its immediate tasks was

"Getting Zimbabwe Moving Again". Within a few weeks, the new Government launched the Short-Term Emergency and Recovery Programme (STERP) as a strategy to rehabilitate the country.

The Ministry of Health and Child Welfare organised an Emergency Health Summit from 5-6 March 2009, to develop a 100-Day plan to "kick start" the health system under the auspices of the new Inclusive Government. Over 180 stakeholders participated in developing concrete recommendations for action contained in a document, "Getting the Zimbabwe Health Care System Moving Again". This was followed by a ministerial retreat during which Government developed its first 100 day plan. Subsequently, two additional funding proposals were developed and submitted to the Ministry of Finance. Between 2008 and 2009, the Ministry of Health and Child Welfare operated on what one might describe as emergency Annual Plans. The country could not continue operating without a strategic direction, even though it was facing economic challenges and uncertainty of over funding.

The National Health Strategy, 2009 – 2013: Equity and Quality in Health-A People's Right, is a successor to the National Health Strategy for Zimbabwe, 1997-2007: Working for Quality and Equity in Health, whose major thrust was to improve the quality of life of Zimbabweans (The National Health Strategy 2009-2013). The 2009-2012 period saw the economy rebounding and beginning to reverse the consequences of the near collapse of the health system in 2008. However, the period 2013-2015 saw a dramatic drop in economic growth and the prospects for the next five years were predicted to remain sluggish. Currently, the Ministry of Health and Child Care is working with the National Health Strategy for Zimbabwe 2016-2020: Equity and Quality of Health: Leaving No One Behind.

The vision of the Zimbabwe Ministry of Health and Child Care is to have the highest possible level of health quality of life for all its citizens. The National Health Strategy 2016-2020 sets out the strategic direction for the health sector over the next five years. The 2016-2020 National Health Strategy builds on the 2009-2013 strategy and its extension in 2014-15 by addressing existing gaps and, more importantly, seeks to sustain the gains achieved thus far through a comprehensive response to the burden of disease and strengthening of the health system to deliver quality health services to all Zimbabweans. The strategy lays out the health agenda for 2016-2020 taking into account the broader policy context that is largely defined by the Zimbabwe Agenda for Sustainable Socio-Economic Transformation (Zim-Asset) and the Sustainable Development Goals. The current challenges of economic growth worsened by a turbulent global market means that this strategy cannot be business as usual as the country needs to find innovative ways of supporting the health sector. Equally important is the need to ensure that other sectors directly and indirectly linked to health, align their programmes and activities to contribute towards a healthy population, hence, the Zim-Asset's clusters approach (The National Health Strategy 2016-2020).

2.3.2 Health Delivery System in Zimbabwe

Zimbabwe's health delivery system used to be amongst the best in Sub-Saharan Africa. However, it has suffered severely in the period 2000-2009. This decade has witnessed significant declines in key health indicators. Below is a summarised review of the Zimbabwe's e-Health Strategy-2012-2017 by the Ministry of Health and Child Welfare.

- HIV prevalence of adults between 15-49 years of age would be at 13.7 percent by 2010;

- HIV prevalence amongst adults between 15-24 years of age was at 5.5 percent (Zimbabwe Demographic and Health Survey, 2010-2011);
- Child health status indicators are getting worse, with infant mortality and ages under five mortality rising from 53 and 77 per 1000 live births in 1994, to 60 and 86 per 1000 live births respectively in 2009 (MIMS). By 2011, the above indicators had not improved, with ages under 5 mortality at 84 per 1000 live births and infant mortality at 57 per 1000 live births (Zimbabwe Demographic and Health Survey, 2010-2011);
- The nutritional status of children indicators are unacceptably high with stunting increasing from 29.4 in 1999 to 35 percent among children under 5 years old (National Health Strategy, 2009-2013);
- Maternal mortality rates are at an unacceptably high level of 725 deaths per 100,000 births (Zimbabwe Maternal and Perinatal Mortality Study, 2007). By 2010 this was reported to have increased to about 960 per 100,000 births (Zimbabwe Demographic and Health Survey, 2010-2011);
- An estimate of over five million people are at risk of contracting malaria every year (National Health Strategy 2009-2013);
- There is continued reports of outbreaks of rabies and anthrax in some parts of Zimbabwe;
- Chronic non-communicable conditions such as diabetes and hypertension are on the increase (Zimbabwe STEPS survey, 2005);
- Life expectancy at birth has fallen from 63 in 1988 to 43 years in 2006/6 (National Health Strategy 2009-2013).

According to Nyazema (2010), the findings note that Zimbabweans are dying from mostly preventable and treatable conditions such as HIV and AIDS, TB, diaorrhea, acute respiratory infections, malaria, malnutrition, injuries,

hypertension, pregnancy related and perinatal complications, mental health disorders to name a few (Zimbabwe's E-Health Strategy 2012-2017).

Zimbabwe's health service delivery is established at four levels namely, primary, secondary, tertiary and quaternary. The Primary Health Care (PHC) is the main organ through which health care programmes are implemented in Zimbabwe. The PHC main components include maternal and child health services, health education; nutrition education and food production; expanded programme on immunisation; communicable diseases control; water and sanitation; essential drugs programme; and the provision of basic and essential preventive and curative services. Ministries of Health and Child Welfare and Local Government provide the majority of Health Services in both rural and urban areas. Ministries of Education, Defence, Home Affairs and Prison Services also provide health services to a lesser extent. The private sector compliments the public sector health services. Efforts are being made in Zimbabwe to increase collaboration and health service provision through numerous public private partnership initiatives (Ministry of Health and Child Welfare National Health Information Strategy, 2009-2013).

According to the National Health Strategy, gaps are evident in the six pillars of health system for efficient health delivery services. In 2008 public sector Human resources for Health vacancy levels were at 69 percent for doctors and over 80 percent for midwives. By 2008 access to essential drugs and supplies had been greatly reduced with stock availability ranging between 29 percent and 58 percent for vital items and 36 percent for all categories of items on the essential drug list. Medical equipment critical for diagnosis and treatment was old, obsolete and non-functional and above all, the health system is grossly

underfunded. Emerging from a severely constrained health system, eHealth becomes critical in Zimbabwe.

2.4 ICTs and HIV/AIDs Information Dissemination in Africa

HIV/AIDS epidemic is still a major societal problem in developing countries, especially in Africa. ICT (Information and Communication Technologies) is seen as one of the most important solutions in order to provide HIV/AIDS preventive education for all members of the society. Kizito & Suhonen (2011) performed a literature review in order to identify the uses of ICT for HIV/AIDS preventive education in developing countries with a specific focus on teenagers. Kizito & Suhonen (2011) searched information about the existing methodologies for the design and development of technology supported HIV/AIDS preventive education. The two authors reviewed altogether 20 articles reporting uses of ICT for HIV/AIDS preventive education.

They made four observations in their analysis: mobile technologies have been widely used for HIV/AIDS preventive education to address both adults and teenagers; static websites (e.g. web1.0) and CD-ROMS are still the prevailing solution for HIV/AIDS preventive education both in adult population and in schools; one advanced computing technology solution - an expert system for HIV/AIDS preventive education - was identified; one set of guidelines was identified for designing technology enhanced support for HIV/AIDS preventive education.

Kizito & Suhonen (2011) noticed that contemporary ICT technologies, such as web2.0 tools and computer games, have not been extensively applied in HIV/AIDS preventive education in the context of developing countries. The authors concluded that there is a need to carry out more extensive research and

development work in order to harness the potential of contemporary ICT solutions for targeting teenagers in developing countries.

According to Ojuondo & Kwanya (2014), the use of Information and Communication Technologies (ICTs) for behaviour change communication is one of the approaches civil society in Kenya has embraced to confront the HIV/AIDS scourge. The two authors assert that ICTs have a great potential to enable People Living with HIV (PLWHA) and other vulnerable groups such as women and the youth to respond appropriately to and participate effectively in programmes aimed at managing the impacts of the disease.

Ojuondo & Kwanya (2014) carried out a study focusing on the actual role and potential benefits of ICTs in enhancing HIV/AIDS health communication in poorly resourced areas in Kenyan cities. Primary data for the study were collected through interviews and focus group discussions with administrators and users of ICT facilities in community HIV/AIDS project sites in Nairobi, Kenya. The study revealed that e-mail discussion groups, social media, the World Wide Web (WWW), radio, television and distance learning systems are some of the ICT tools which are being used in the fight against HIV/AIDS in the slums in Kenya's cities; HIV/AIDS programmes in Kenya utilise ICT tools to enhance their prevention, education and behaviour change communication mitigations; and HIV/AIDS projects utilise ICTs to educate health workers of emerging health issues in their efforts to enhance the impact of their interventions.

The two researchers concluded that ICTs have direct and indirect intrinsic value in their capacity to empower users to prevent or mitigate the effects of HIV/AIDS infections. Whereas ICTs offer a variety of opportunities, extra efforts have to be made in order to systematically harness the benefits and opportunities they present for the management of HIV/AIDS.

In South Africa there are approximately 36 million active cellphone users, and around 80 percent of all youth and adults have a cellphone. This level of cellphone penetration makes mobile a potential 'mass media' in South Africa. The opportunities in South Africa for using mobile technologies to support initiatives in the HIV/AIDS sector are enormous (De Tolly & Alexander 2009). A huge number of people have cellphone access, and there are a range of innovative ways in which cellphones can be used to support treatment, disseminate information, provide anonymous counselling, gather data and link patients to services. Cell-Life is an NGO based in Cape Town, South Africa, that seeks to improve the lives of people infected and affected by HIV through the appropriate use of technology. This study looked at three pilot interventions that are experimenting with different cellphone technologies to disseminate information, undertaken as part of Cell-Life's Cellphones4HIV project: ARV adherence SMSs, USSD content delivery and content delivery via MXit. Cell-Life initiated a project called "Cellphones4HIV", which looks at how mobile technology can be used in the prevention, treatment and care of HIV and AIDS, and to support the HIV sector in general.

De Tolly & Alexander (2009) concluded that mass media campaigns are one of the 'best buys' when it comes to HIV prevention, there is an imperative to look at how cellphones can be harnessed to this end (Innovative use of cellphone technology for HIV/AIDS behaviour change communications: 3 pilot projects.

2.5 Defining Young People

The United Nations (UN), for statistical consistency across regions of the world, defines 'youth' as:

> "those persons between the ages of 15 and 24 years, without prejudice to other definitions by Member States. All UN statistics on youth are based

on this definition, as illustrated by the annual yearbooks of statistics published by the United Nations on demography, education, employment and health" (United Nations Youth 2018: 1).

As of 2005, UNESCO's action with and for young people is based on the UN definition of youth, that is persons between 15-24 years of age (United Nations-Youth 2018).

In this study, however, young people refers to ages 18-24, (see Sections1.1, page 8, 1.5.2 and 1.8).

2.5.1 HIV/AIDS and Young People in Zimbabwe

Among young women, HIV prevalence increases with age, with 2.7 percent of women aged 15-17 living with HIV, increasing to 13.9 percent of women age 23-24 in Zimbabwe. Among young men, HIV prevalence remains steady at around 2.5 percent until the age of 23-24 when it increases to 6 percent. However, as only 64 percent of young women (15-24) and 47.5 percent of young men have ever tested for HIV, prevalence among this group could be significantly higher.

The Zimbabwe News Day newspaper of 19 May 2017 reported that less than 15 percent of young people are aware of their HIV status despite constituting the larger group of people who are dying from HIV and Aids-related illnesses. Experts reported that this is a result of a toxic brew of stigma, lack of access to health care, risky behaviours and too few young people being tested for HIV.

Addressing the Senate Thematic Committee on HIV and Aids, Sibusisiwe Marunda, who is the country director for Regional Psychosocial Support Initiative (REPSSI), said the grave situation needed urgent address from all

stakeholders. “Young people have not been able to access HIV services because the environment is not permissive. There is still a lot of stigma from the community as well as health facilities. From our research and that of partners, there are indications that young people who go for HIV testing are not disclosing their results, especially if they are positive,” (Mbanje 2017).

The Zimbabwe Daily News of 11 December 2016 carried an article on “HIV infection rise among adolescents”. It was reported that while Zimbabwe has made enormous strides in reducing the HIV prevalence, gains made thus far could be reduced by a spike in infections among adolescents age 10-19, the Health and Child Care Ministry warned. It was reported that in 2015 alone, nearly 14 000 girls and young women between the ages 15-24 were infected with HIV, raising fears that the next generation is under threat.

Although the global theme for World’s AIDS Day was “Hands up for HIV Prevention”, the Zimbabwe Minister of Health and Child Welfare, Dr David Parirenyatwa localised it to “Closing the Tap of New HIV Infections” especially among the youth and young women who had become vulnerable of getting infected with the virus (Mananavire, 2016).

In an article on HIV and AIDS (2009), UNICEF reported that AIDS was orphaning an entire generation of children as every fourth Zimbabwean child is orphaned, the second highest orphan rate in the world. Young people between the ages of 15 and 24 make up approximately half of all new infections, with girls and young women being particularly vulnerable. Targeting children and youth with key educational messages and providing the knowledge on how to prevent infection are therefore crucial issues in the long term fight against the virus (HIV and AIDS 2009.

According to Kembo (2012:54), "HIV infection remains a major problem among young persons aged 15-24 years in Zimbabwe". He (2012:54) states that:

> "the Joint United Nations programme on HIV/AIDS (2010a) stipulates that the reduction of the prevalence of HIV and AIDS among persons aged 15-24 years is important for monitoring the reduction of the epidemic among the general population. HIV infection among young people aged 15-24 year facilitates the detection of the course of new infections in the general population".

Kembo (2012) further argues that, because of the above reasons, the objective of the United Nations General Assembly Special Session on HIV/AIDS is to reduce HIV infection among persons aged 15-24 years. Kembo (2012) states that HIV prevalence among people aged 15-24 years was one of the indicators for monitoring the progress of the Millenium Development Goal (MDG) 6 which was to "Have halted by 2015 and begun to reverse the spread of HIV/AIDS". The other related indicator for monitoring progress towards the achievement of MDG 6 was the proportion of the population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS (Statistics South Africa, 2010).

Kembo (2012) carried out a study to assess the effect of demographic, socio-economic and behavioural factors on the risk of HIV infection among the 15-24 years age group in Zimbabwe. The specific objective was to determine the demographic socio-economic and behavioural factors that predispose persons aged 15-24 years people to HIV infection in Zimbabwe. The findings from the study were expected to inform the design of appropriate prevention programmes to combat the spread of HIV and AIDS among the people aged 15-24 years.

According to the 2005-06 Zimbabwe Demographic and Health Survey (ZDHS), 7.8 percent of men and women in Zimbabwe aged 15-24 years were HIV positive. The ZDHS states that the prevalence of infection was higher among females aged 15-24 years (11.0 percent) than among males of the same age group which was 4.2 percent. Kembo's study is based on the sub-sample of persons aged 15-24 years (6 139) who took the dried blood sample (DBS) HIV test.

The findings in that study indicated that age group, sex, marital status, age of debut, number of sexual partners, sexually transmitted infections and condom use are important predictors of HIV infection among the 15-24 age group in Zimbabwe. Therefore, HIV and AIDS prevention programmes in Zimbabwe and indeed in other developing neighbouring countries should focus on these predisposing factors in order to mitigate the spread of HIV and AIDS among the 15-24 age group (Kembo 2012).

Kembo (2012) also argues that it is important for HIV and AIDS programmes targeted at young people aged 15-24 years to include promoting the delay of sexual debut as this predisposes them, especially young females, to multiple sexual partnerships, which in turn puts them at risk of HIV infection. Kembo (2012) asserts that it is important to design bold and effective interventions that address the needs of all young people aged 15-24 years in Zimbabwe and in the other sub-Saharan countries such as Botswana, Malawi and South Africa which are still characterised by a high burden of HIV-induced morbidity and mortality.

Kembo's study motivated this research. His research focused on young people aged 15-24. What makes the current study special is that it is focusing on young people aged 18-24, which is the legal Age of Majority in Zimbabwe. Investigating the roles social media can play in disseminating HIV/AIDS

information among young people in Harare will assist in designing effective HIV/AIDS awareness programmes and models for disseminating HIV and AIDS information among young people 18-24 years in Harare in order to combat the HIV and AIDS pandemic.

2.6 Background to Social Media (WhatsApp, Twitter and Facebook)

WhatsApp was started in 2009 by two ex-Yahoo staff members; this smartphone messaging system handles more than 10 billion messages a day and is reckoned to have more than 250 million users worldwide (Olson 2013, Sharma & Shukla, 2016). WhatsApp is one of the most popular free apps on any platform, and a threat to telecoms companies which charge for texts. The main purpose behind the WhatsApp application is to replace SMS with a cross platform mobile messenger that works on an Internet data plan (Sharma & Shukla 2016).

In the race to become platforms with extra frills, the big exception is WhatsApp. Founder, Jan Koum, has said that he has no plans for this service to start providing games. Koum and his co-founder Brian Acton, both former Yahoo managers who were one of the first to create a mobile messaging app for smartphones with WhatsApp, see it almost as a pure communication utility that should not be saddled with extra features that might slow things down (Olson 2013).

Twitter was established in 2006 by Jack Dorsey. The inspiration behind the development for the site was for people to have the ability to share information with specific communities in short SMS type communications. Twitter has been very influential in the quick sharing of information especially following major events. Twitter has become an important source of information during important events most notably during the Arab spring in 2011 where users utilised the site

to share information that many times contradicted what was reported in some state owned media in several Arab countries (Comnios 2011).

Facebook is the world's most popular Online Social Network (OSN). In 2003, Zuckerberg, a second year student at Harvard at the time, wrote the software for a web site called Facemash. Zuckerberg put his computer science skills to good use by hacking into Harvard's security network, where he copied the student ID images used by the dormitories and used them to populate his new website. Interestingly enough, he had initially created the site as a type of "hot or not" game for fellow students. Website visitors could use the site to compare two student photos side by side and decide who was "hot" and who was "not." Facemash opened on October 28, 2003 and closed a few days later after it was shut down by Harvard execs. On February 4, 2004, Zuckerberg launched with a new website called "Thefacebook." He named the site after the directories that were handed out to university students to aid them in getting to know one another better (Bellis 2018). Mark Zuckerberg, 23, founded Facebook while studying psychology at Harvard University. A keen computer programmer, Mr Zuckerberg had already developed a number of social networking websites for fellow students, including Coursematch, which allowed users to view people taking their degree, and Facemash, where you could rate people's attractiveness. In February 2004 Mr Zuckerberg launched "The facebook", as it was originally known; the name taken from the sheets of paper distributed to freshmen, profiling students and staff. Within 24 hours, 1,200 Harvard students had signed up, and after one month, over half of the undergraduate population had a profile (Sarah 2007).

WhatsApp is the most popular messaging app in the UK and on half the country's iPhones, according to Mobile Marketing Magazine, has more than 350 million monthly active users globally. That makes it the biggest messaging

app in the world by users with even more active users than the social media Twitter, which counts 218 million. About 90 percent of the population in Brazil uses messaging apps, three-quarters of Russians, and half of Britons, according to mobile consultancy Tynec. WhatsApp alone is used on more than 95 percent of all smartphones in Spain. The power users and early adopters of these apps are under 25 (Olson 2013).

One of the strengths of WhatsApp messaging apps is that they promote dynamic real time chatting with different groups of real life friends, real life, instead of passively stalking people one barely knows on Facebook. WhatsApp is more personal; some 78 percent of teenagers and young people use mobile messengers to plan a meet up with friends, according to research advisory firm mobileYouth (Olson 2013).

Twitter has the potential to share information. According to Adams (2012), many companies/organisations also have active Twitter accounts which they utilise for information sharing and communication. As the second largest social network and with its rapidly growing membership base, Twitter may have a prominent role to play in sharing and communication of HIV/AIDS information to the young people aged 18-24 in Harare.

African countries notched a 12 percent growth in active social media users to 191 million in 2017, according to a report by global digital agencies. Of those, mobile users accounted for 172 million, most of whom used only two Facebook owned platforms: WhatsApp and Messenger. With the exception of a few countries, WhatsApp was easily the most popular platform across Africa, while Facebook Messenger was mostly used across North Africa, Somalia, and Eritrea.

Klomsri, Greback & Tedre (2013) assert that in South Africa, the dominant social networking service is Facebook, which crosses many digital divides in the country. According to Klomsri, Greback & Tedre (2013) young adults are exposed to various kinds of information on Facebook on a daily basis while maintaining control of their own Facebook account activities.

In their study "Social Media in Everyday Learning" (2013) the three explored the used patterns of Facebook among young, low educated South African adults and analysed the potential of those used patterns for informal learning. The results show that the social interactions on Facebook support informal learning and personal development without the constraints of time, objectives or curricula

WhatsApp has been key to driving internet uptake in Africa. In Zimbabwe, the app was responsible for about half of all internet data in 2017. WhatsApp is by far the most popular internet app in Zimbabwe, accounting for up to 44 percent of all mobile internet usage in the country. WhatsApp's parent, Facebook took up only 1 percent. Mobile internet is 98 percent of all internet use in the country (Karombo 2017).

2.6.1 Potential of Social Media in Disseminating Information

In this age of shared information, the Internet is increasingly progressing from an information-centric medium (Kreps 2011) to one that is, as stated by Singh & Cullinane (2010) characterised by the creation, dissemination and coordination of collective intelligence. According to Schiavo (2008), this has led to the emergence of various digital communities that utilise the different online platforms afforded to them via the Internet for diverse outcomes and objectives.

According to Klomsri, Greback & Tedre (2013), the diffusion of modern information and communication technology (ICT) has changed the way people live, learn and communicate. The three authors argue that the effects of these changes to living are not yet fully understood. Klomsri, Greback & Tedre (2013) further state that along with Web 2.0, the increased use of social networking sites, such as Facebook, has made it possible for large amounts of information to be exchanged and spread globally at no time resulting in this new media society creating new conditions for informal learning and for the lifelong learning process. Klomsri, Greback & Tedre (2013) assert that social media has in the recent years become a part of people's daily lives, and with it has come a new way to communicate and interact. The three authors observe that whilst the functions of social media in formal and non-formal learning are well studied, much less attention has been paid to their role in informal learning.

Diaz (2016) explains why social networks are popular, arguing that a human is by nature a social being and socialising with others and communicating with the world around them is vital for their learning processes.

According to Omar (2014) and Edosomwan *et al.*, (2011) the most popular examples of social networking sites are Facebook, Instagram, Linkedln, Twitter, YouTube and Snapchat, with Olson (2013) stating that the top messenger apps are WhatApp, Snapchart, WeChat & KakaoTalk. Social network sites allow users to freely set up their own online accounts and profiles in order to connect with others around the world (Omar 2014). In addition, they allow users to post, share and communicate with other users on any one social media platform as well as many other linked platforms. Social media creates the opportunity to network with other members who share similar or common interests, dreams and goals. This is in line with Akerlund (2011) who states that social networks answer to some basic human needs such as wanting to be included in a group

and a context. Social networks also enable one to understand one's place in the world and to reflect on how others see them. "The social nature of humans explains the ways in which people interact and behave in social networks. From a socio-cultural perspective, the sense of belonging in a social context is a driving force for learning, and relates to personal growth. This perspective suggests that interaction in social context offers different ways of development of personal identity". pp137.

The National Research Corporation (2011) reported that about 18 percent of nearly 23 000 respondents have used Twitter to seek health related information. This has resulted in health information being quickly spread to a potential enormous audience by tweeting and retweeting. Robillard *et al.* (2013) analysed Twitter content about ageing and dementia. The majority of tweets generated discussions of recent research findings related to prediction and risk management of Alzheimer's disease. In their study on Twitter as a source of vaccination information, (Love *et al.* (2013) reported that Twitter users frequently discussed the development of new vaccines and collectively interpreted updated research findings about vaccine effectiveness. Another study by McLaughlin *et al.* (2013) revealed that PrEP-related Tweets covered a wide range of issues, such as side effects, adherence issues, risk compensation, moral judgements and targeted recipients.

An *et al.* (2014) in their study to examine how pre-exposure to prophylaxis (PrEP) has presented and disseminated on Twitter, the authors found out that Twitter was used to generate public discussions. Twitter was also used collectively to interpret new medical information especially among users with more followers. According to An *et al.* (2014) social media is becoming a popular platform to disseminate and discuss health information. The authors assert that Twitter has emerged as one of the most popular online social

networking and micro-blogging sites that enables users to share their perceptions and experiences. An *et al.* (2014) in their study report that recent studies have monitored public perceptions and social media representations of health topics on Twitter. They further argue that Twitter is not only a venue for news media and public agencies to disseminate health information, but also a platform to generate discussions on various health topics. Scanfield, Scanfield & Larson (2010) also share the same views about Twitter. The authors analysed antibiotic-related Twitter status updates and found that Twitter social networks provided a platform for participants to share advice on health information.

An *et al*. (2014) raise a fundamental issue on the participatory nature of social media. They argue that it may increase the possibility of misuse and misinterpretation of health information. According to Hanson *et al*. (2013) there is a high volume of social media content about prescription drugs sold illegally online. This is supported by Liang & Mackey (2011) in their study on health implications of social media in direct-to-consumer drug advertising. Liang & Mackey (2011) found that the majority of the top 20 drug brands by direct to consumer advertising (DTCA) spending, were marketed by illicit online pharmacies. 11 of them had Facebook page links, whilst 16 had Twitter links and these directed users to illicit online pharmacies.

Mackey & Liang (2013) created a fictitious advertisement about purchasing prescription drugs online on the top four social media platforms; Facebook, Twitter, Google and MySpace. When they traced the user traffic, they found out that there were 2 795 over a period of ten months. It is important to note that despite the insufficient research on social media and illicit online pharmacies, the association between Internet/social media and nonmedical use of prescription drugs began to emerge (Mackey & Liang 2011). It is therefore

critical to investigate whether social media is the right platform to use when disseminating HIV/AIDS information among the young people, or determine whether it may bring other challenges which may be too complicated to handle or deal with. However, the researcher argues that the impact that social media has in relaying messages to a big number of people within a short space of time makes it credible to embark on this study.

Taggart *et al.*, (2015), also reported the importance of remaining anonymous when using social media to communicate HIV issues. This is critical considering the stigma associated with HIV. The authors concluded that using social media to bridge communication among a diverse range of users, in various geographic and social contexts, may be leveraged through pre-existing platforms and with attention to the roles of anonymity and confidentiality in communication about HIV prevention and treatment.

According to Rodecker (2010), social networks offer a new way to communicate, access and exchange information, and realise personal goals. The authors are in agreement with Balter and Thorbiornson (2011) who assert that physical distance, time and even language barriers no longer limit people from communicating and exchanging ideas. They further argue that social networking allows users to communicate, interact and create their own content and share it with whomever they choose.

Taggart *et al.*, (2015) further argue that social media platforms have varying designs and features, such as options for anonymity, which can be tailored to meet the needs of target populations and increase use and acceptability of the platform. Anonymity allows users to control the information they disclose about themselves, which may allow marginalised populations to feel more comfortable communicating about HIV on social media platforms. Most studies

in this review do not indicate whether or not individuals communicated using their real names. Interestingly, anonymity is cited as a key benefit and lack of privacy is cited as a key barrier to using social media to communicate about HIV.

This dichotomy suggests that social media platforms used to communicate about HIV should allow participants to choose if they would like to remain anonymous in order to facilitate engagement. HIV is a highly stigmatised disease in which PLWHA make decisions about disclosure of their HIV status. These decisions affect subsequent health behaviours, access to social support, and interactions with sexual partners and social networks. Social media platforms may provide PLWHA with an opportunity to anonymously rehearse HIV status disclosure, which may facilitate disclosure in real world settings. An important next step to using social media to communicate about HIV is to identify which designs best create and facilitate a sense of privacy, confidentiality, and safety.

This may suggest that young people from both areas have mobile phones considering that mobile telephony was introduced in Africa in the mid-1990s (see Chapter 2). According to Goodwin, 2013; UNDP Human Development Report, 2014, even though the penetration rate of mobile phones in Africa is not as high as other regions of the world, the growth in the use of mobile phones in Africa has been unprecedented. Across Africa, the year on year growth in the use of mobile phones has exceeded expectations. For example, in 1999 Kenya based telecom company, Safaricom predicted that the market for mobile phones would reach three million by 2020.

The increased use of social networking sites has made it possible for large amounts of information to be exchanged and spread globally at no time. HIV/AIDS organisations in Harare should leverage on utilising social media

such as Facebook, Twitter and WhatsApp to widely disseminate HIV/AIDS information among young people. Social media has in the recent years become a part of people's daily lives, and with it has come a new way to communicate and interact. This shows that there is great potential in using social media to disseminate the critical HIV/AIDS information to young people aged 18-24 in Harare.

2.6.2 Social Media and Dissemination of HIV/AIDS Information to Young People

Heldman, Schindelar & Weaver (2013:2) define social media as:

> "the collection of digital channels and tools (e.g. Facebook, Twitter and YouTube) used for public health communication. One defining characteristic of all social media is their potential to facilitate engagement, the interactive, synchronous communication and collaboration among numerous participants via technology. There is a multi-way communication, at the same time, but in different places, functionality available through social media enabling public health organisations to move from basic information dissemination typical of traditional mass media to a fully interactive information sharing dialogue".

According to Karaosmanoglu (2012) organisations should leverage on social media platforms as online avenues that can be effectively managed to exploit their potential for stimulating consumers to disseminate information about the products/services available. However, it is critical to understand what motivates individuals to be involved in social platforms. Karaosmanoglu (2012) goes on to say that by July 2010, more than 20 billion Tweets had been sent through Twitter since its launch in 2006. The introduction of the Internet has provided

an environment for one-on-one, one-to-many, many-to-one and many-to-many interactions.

For the purpose of this study, social media is an umbrella term referring to the media one uses to involve oneself in social interaction through connecting with other users online (see 1.5.2).

When it comes to social media usage among young adults, the landscape is regularly shifting. Several articles and studies from the past few years have attempted to gauge which social media platforms are most popular among this segment of the population and the results can be slightly perplexing. There are headlines claiming Facebook is no longer the go-to choice among college users and even younger teens. However, various studies show that actual usage patterns differ from such proclamations.

Amid it all, one thing is clear, namely that "social media in all of its forms has definitely become an integral part of life for college students, and even younger generations for that matter" (Modo Labs Team 2016).

According to Kembo (2012:54):

> "The Joint United Nations Programme on HIV/AIDS (2010a) stipulates that the reduction of the prevalence of HIV and AIDS among persons aged 15-24 years is important for monitoring the reduction of the epidemic among the general population. HIV infection among young people aged 15-24 years facilitates the detection of the course of new infections in the general population".

Akerlund (2011) states that social networks answer to some basic human needs such as wanting to be included in a group and a context. Social networks also enable one to understand one's place in the world and to reflect on how one is

seen by others. “The social nature of humans explains the ways in which people interact and behave in social networks. From a socio-cultural perspective, the sense of belonging in a social context is a driving force for learning, and relates to personal growth. This perspective suggests that interaction in social context offers different ways of development of personal identity” (Akerlund, 2011: 137).

Taggart *et al.* (2015) also underlined the importance of remaining anonymous when using social media platforms to disseminate HIV information. This is mainly as a result of the stigma associated with. The authors concluded that using social media to bridge communication among a diverse range of users, in various geographic and social contexts, may be leveraged through pre-existing platforms and with attention to the roles of anonymity and confidentiality in communication about HIV prevention and treatment.

Taggart *et al*. (2015) further argue that social media platforms have varying designs and features, such as options for anonymity, which can be tailored to meet the needs of target populations and increase use and acceptability of the platform. Anonymity allows users to control the information they disclose about themselves, which may allow marginalised populations to feel more comfortable communicating about HIV on social media platforms. Most studies in this review do not indicate whether or not individuals communicated using their real names. Interestingly, anonymity is cited as a key benefit and lack of privacy is cited as a key barrier to using social media to communicate about HIV. This dichotomy suggests that social media platforms used to communicate about HIV should allow participants to choose if they would like to remain anonymous in order to facilitate engagement. HIV is a highly stigmatised disease in which PLWHA make decisions about disclosure of their HIV status. These decisions affect subsequent health behaviours, access to social support,

and interactions with sexual partners and social networks. Social media platforms may provide PLWHA with an opportunity to anonymously rehearse HIV status disclosure, which may facilitate disclosure in real world settings. An important next step to using social media to communicate about HIV is to identify which designs best create and facilitate a sense of privacy, confidentiality, and safety.

In an article entitled "Indian youth prefers WhatsApp, Facebook over SMS", published on June 16, 2013 in The Times of India Online newspaper, a study covering 17,500 high school students, was conducted by Tata Consultancy Services in the years 2012-2013. The study revealed that today's youths are collaborating through social networking tools and building virtual communities aided by affordable band width and smart devices. The survey proved that almost 70 percent of the students possess smart phones and have started utilising the full potential of smart phones.

Mwabili (2017) looked at specific health issues related to HIV and AIDS communication where youth, who are identified as a risk group are also users of social media. The study was conducted at the University of Nairobi. The author concludes that social media provides a number of platforms that can be leveraged for HIV and AIDS communication so as to reach as many youth as possible with key messages thus promoting consumption of such messages. However, only two platforms (Facebook and YouTube) are highly reported to contain HIV and AIDS information.

According to the study, there is a significant number of youth who are seeking HIV and AIDS information on social media, however, the information that is available in social media on HIV and AIDS does not have influence on their knowledge and awareness because of predisposed information that the students had already obtained, either in their school course work or elsewhere which is

repeated. The study concludes that social media is still used to communicate messages that were used in previous types of media with the expectation to have impact, such as behavioural change (Mwabili 2017: 63)

In a study on importance of social media in engaging young people on Human Immunodeficiency Virus (HIV) prevention, Facebook was the most utilised social media site while Twitter and Google+ were other important social media platforms for accessing HIV/AIDS information by young people in Nigeria. According to the authors, the National Agency for the Control of AIDS (NACA) Nigeria joined Facebook on 9 August 2010. As at 30 April, 2014, the page had attracted 2,593, mostly unpaid. An analysis of the NACA Facebook page revealed that the social media attracts an international audience and is not limited to local audiences (Aba, Aderibigbe and Olubunmi 2014). The results in the research by Aba, Aderibigbe and Olubunmi (2014) show that a large number of Nigerian youth can be reached with important HIV/AIDS information through social media. The frequent use of social media can therefore actively engage the attention of young people and will keep them reminded of obligatory practices to keep them safe and healthy (Abah, Aderibigbe & Olubunmi 2014).

A study by Asante and Oti-Boadi (2013) showed that university students in a tertiary institution in Ghana were knowledgeable about HIV/AIDS, used both printed and electronic media (especially television and the internet) as their sources to HIV information, and the majority of them have not had HIV tests, although some know about the availability of Counselling and Testing services. There is however, the need to embark on extensive and sustained HIV/AIDS educational programmes.

The two authors call for strong collaboration among universities and polytechnics, colleges of education and Ministry of Health which should be

built to help in the design and implementation of comprehensive special education to curtail the spread of HIV/AIDS in Ghana. Such programmes should begin at the primary school levels and extend beyond formal education to reach parents and other adults in the larger community. The existing HIV/AIDS Clubs in some tertiary institutions in Ghana should be scaled up to cover all higher and tertiary institutions.

According to Madden *et al.* (2013) 95 percent of teens are online and according to Rideout, (2010) over half of 7th and 12th grades are reported looking up health information online. This in itself is proof that it is worth adapting use of social media in disseminating HIV/AIDS information for the benefit of young people. It is therefore critical that the social media is utilised, otherwise it will be a huge disservice to adolescents, if they are not reached where they are. In particular with regards to HIV/AIDS prevention, not reaching out to young people will result in a dire consequence, which is the continued transmission of HIV among this vulnerable group (Madden *et al.* 2013). Myths exist and there is widespread stigma regarding HIV. According to Majelantle *et al.* (2014), 50 percent of young people thought that kissing can transmit AIDS. It was recommended that it is important to monitor the prevalence of risky health and sexual behaviours in order to tract effectiveness of prevention programmes and to guide design of new behaviour change interventions. There is also a crucial need for young people to be continuously provided with HIV education and relevant prevention messages to help protect themselves from infection and remove the misconceptions as evidenced by the prevailing misconceptions **(**Majelantle *et al.* 2014).

According to Lightfoot (2012) HIV/AIDS incidence rates among adolescents remain alarming. She therefore argues that these HIV incidence rates warrant that there be a focus on preventing HIV/AIDS among adolescents and young adults.

Lightfoot (2012), suggested that there is an urgent need to expand current approaches to HIV prevention for the 15-24 age group because of the continued unacceptably high rate of HIV. She proposed that in order to adequately address HIV among adolescents, "consideration and attention should be given to family-based interventions, social determinants and health disparities, new theoretical models, and utilization of new technologies. Tools such as the Internet and social media are how adolescents access each other, information that is important to them, and the broader world. Consequently, these technologies present a unique opportunity for reaching adolescents for health", (Lightfoot 2012).

Palasinki, Riggs & Allison (2013) commenting on Lightfoot's article, contribute to a misapplied assessment of the dangers of technology. In one of the comments, they suggested that access to pornography online provides adolescents with mixed messages about sexual behaviour. However, Lightfoot (2012) asserts that this is misleading because one cannot equate an intervention specifically designed to reduce HIV or sexually transmitted infection, which are risk behaviours with exposure to pornography. According to Lightfoot (2012), pornography is not an educational exposure that is intended to educate youth on how to have safe or protected sex. Lightfoot (2012) further argues that similarly it is also misleading for Tikkanen and Ross (2000) to equate the behaviour of gay men who are searching for sex online with adolescents receiving an evidence-based intervention via technology. Lightfoot and Woods (2012) assert that there are not mixed messages with regard to HIV preventive behaviours. People should take cognizance of the fact that the field is clear on what are safer sex sexual behaviours and also the fact that porn sites and spaces where adults are looking for sex are not the places for HIV prevention interventions or reproductive health education for adolescents.

However, Palasinki, Riggs & Allison (2013) commenting on the above, recommended that the downsides of technology be kept in mind when utilising new media for prevention. They identified a number of concerns with new media and technology. Palasinki, Riggs and Allison (2013: 887) further argue that technology has the ability to "spread misinformation, perpetuate myths of safe sex, and encourage sexually risk behaviours". Although Palasinki, Riggs and Allison (2013) raise these concerns, Lightfoot (2012) argues that the issues raised should be considered in the context of empirical evidence and of the significant need for youth to connect with evidence-based interventions. She further argues that too often the discourse around the use of technology is about its dangers, and as a result people are slow to react and leverage these technologies for prevention and preventive messaging. The above shows that there is need to investigate the roles of social media in disseminating HIV/AIDS information to young people in Harare.

It is also unfortunate that Palasinki, Riggs & Allison (2013) did not provide evidence that, when developed and employed as a targeted strategy for HIV prevention as described in Lighfoot & Woods (2012: 887), technology will "spread misinformation, perpetuate myths of safe sex, and encourage risky behaviours". The fact that there may be lack of quality in what is generally available online does not mean that the tool should be abandoned. The best avenue into the world of adolescents might require use of their preferred tools, whatever the challenges and limitations these tools may present. As reviewed in Lightfoot's article, the literature on the use of technology, including the Internet, social media, and mobile technologies, strongly indicates their potential as a means for providing relevant, important, and accurate information and behaviour change strategies to adolescents, not that the adolescents should be finding information on their own.

Lightfoot & Woods (2012) make quite interesting and valid observations which further strengthen the potential of utilising social media for the dissemination of HIV/AIDS information among the young people in Harare. They assert that there is emerging empirical support for utilising technology and new media as an efficacious strategy for delivering behaviour change interventions to adolescents.

In a study by Odu *et al.* (2008), young people in a tertiary institution in south western Nigeria are knowledgeable of how HIV/AIDS is contracted. Most (89.4 percent) respondents were aware of the existence of HIV/AIDS, and knew the aetiology, routes of transmission, signs and symptoms, and preventive measures against the disease.

The study revealed a gap in the knowledge of HIV/AIDS and inappropriate sexual behaviour among respondents. The authors concluded that meaningful strategies, such as an innovative and culturally sensitive adolescent sexual and reproductive health programme that focuses on modification of sexual behaviour, should be adopted to allow young people to prevent transmission of the HIV/AIDS virus. In this study the same can also be said of the minority number of young people with no knowledge about HIV/AIDS (Odu *et al.* 2008).

2.6.2.1 Examples where Social Media has been used to Disseminate HIV/AIDS Information

Bolivia

In Bolivia**,** Ipas is finding success using WhatsApp to connect young people with information on sexual and reproductive health and rights. As part of a project striving to improve youth sexual and reproductive health in two Bolivian states, Ipas trained young leaders on the prevention of unwanted pregnancy and sexually transmitted infections. These young leaders in turn created WhatsApp groups of their peers, friends and others in their communities to share this

information and discuss related health topics.

Malaysia

The issue of social media platforms providing wider coverage is also emphasised in an article: Online HIV Awareness Campaign Debuts in Malaysia. In January 2013, TemanTeman.org launched its website and social media campaign using celebrities and edutainment to promote HIV awareness in Indonesia. Teman-teman" means "friends" in both Malay and Bahasa Indonesia. Like Indonesia, Malaysia is an Islamic-majority country with an HIV epidemic concentrated among key populations, including people who inject drugs, men who have sex with men, transgender individuals, and female sex workers.

TemanTeman.org site features hundreds of videos in which Indonesian celebrity ambassadors and healthcare experts discuss HIV. In less than two years, it has garnered nearly 400,000 visitors, and the celebrity ambassadors have reached millions more by posting about HIV on their social media pages.

Nigeria

The results are similar to Abh, Aderibigbe & Olubunmi (2014) in which Facebook was the most utilized social media site while Twitter and Google+ were other important social media platforms for accessing HIV/AIDS information by young people in Nigeria. According to the authors, the National Agency for the Control of AIDS (NACA) Nigeria joined Facebook on 9 August 2010. As at 30 April, 2014, the page had attracted 2, 593 mostly unpaid. An analysis of the NACA Facebook page revealed that the social media attracts an international audience and is not limited to local audience. The results in the research by Abh, Aderibigbe & Olubunmi (2014) show that a large number of Nigerian youth can be reached with important HIV/AIDS information through

social media. The frequent use of social media can therefore actively engage the attention of young people and will keep them reminded of obligatory practices to keep them safe and healthy.

"No Hoodie, No Honie" is a social media campaign project introduced in 2013 in Nigeria. The project educates young people, particularly girls, about the importance of safe sex. The approach involves videos with two female characters discussing having sex for the first time, pregnancy, sexually transmitted diseases including HIV/AIDS, and using and carrying condoms. The "No Hoodie, No Honie" project has been successful because it is managing to inform and empower girls aged 15-24 with accurate information and skills that allow them to make informed decisions when it comes to sex and relationships.

Odu *et al.,* (2009) conducted a study among young people in a tertiary institution in south western Nigeria about being knowledgeable of how HIV/AIDS is contracted. Most (89.4 percent) respondents were aware of the existence of HIV/AIDS, and knew the aetiology, routes of transmission, signs and symptoms, and preventive measures against the disease.

Kenya

According to the study, a significant number of youths are seeking HIV and AIDS information on social media, however, the information that is available in social media on HIV and AIDS does not have any influence on their knowledge and awareness because of predisposed information that the students had already obtained, either in their school course work or elsewhere which is repeated. The study concludes that social media is still used to communicate messages that were used in previous types of media with the expectation to have impact such as behavioural change (Mwabili 2017:63).

South Africa

A market research study in South Africa showed that social networking which constituted 74 percent of users was one of the main internet activities among South Africans. The study asked respondents which social network sites they used; 82 percent of the social network users sited Facebook, making it the leading social network site used. The same market research study showed that the main activities on social network sites were 75 percent sending messages to people, 62 percent updating status and 61 percent uploading photos and videos. This study showed that a lot of information is constantly distributed via different social network platforms. The study also showed that the availability of social networking can work as a cheap and efficient way to learn and exchange information by "virtually meeting people from other age groups and socio-cultural background, linking to experts, researchers or practitioners in a certain field of study and this opening up alternative channels for gaining knowledge enhancing skills" (Redecker & Punie 2010:314).

In the research conducted by the Human Sciences Research Council, findings in South Africa indicated that the proportion of young people aged 15-24 years with comprehensive knowledge of HIV prevention was generally high although there were some gaps. Knowledge of HIV and AIDS among young people aged 18-24 and initiatives to improve knowledge about HIV and AIDS should centre on providing information about the modes of transmission, means of prevention and behaviours that reduce susceptibility (HEADS, 2010).

HIV education and awareness campaigns constitute an important part of the South African government's HIV prevention strategy. AIDS awareness campaigns funded by government include Soul City and the Medical Research Council's AfroAIDSinfo project. These are programmes which encourage

healthy sexual behaviour utilising mass media such as television, radio and the Internet (HEADS, 2010).

In view of the high rate of HIV infections among young people in South Africa, programmes to address the sexual behaviour of adolescents have drawn considerable scholarly interest. These include school-based sex education interventions, peer education programmes, adolescent friendly clinic initiatives, mass media interventions and community level programmes (Pettifor *et al*, 2005; Panday *et al*, 2009). The programmes can take advantage of using social media considering that South African University students remain online for 16 hours a day and spend an average of 5 hours per day on their smart phones with others through social networking applications (Sharma & Shukla, 2016).

Botswana

According to Majelantle *et al.* (2014), it has been demonstrated that increased knowledge about AIDS is not a predictor for behavioural change, although knowledge about the disease is a prerequisite for change. Majelantie *et al.* (2014) argue that in Botswana, young people continue to engage in risky sexual behaviour despite widespread information and knowledge about HIV/AIDS. Stephens *et al.*, (2012) found that among University of Botswana students, questions related to HIV/AIDS knowledge yielded 96 percent correct responses. Despite this knowledge, the study found that perceived use of testing services and condoms remain lower than might be predicted based on knowledge scores. Many boys and girls are not aware of risks and vulnerabilities associated with HIV infection. Although not sufficient to change behaviour, lack of knowledge is therefore one of the major factors making young people vulnerable to HIV infection (Thupayagale-Tshweneagae, 2010).

Zimbabwe

Zimbabwe has one of the highest rates of mobile phone ownership in sub-Saharan

Africa. According to the most recent 2017 quarterly report from the national telecoms regulator, Postal and Telecommunication Regulatory Authority of Zimbabwe (POTRAZ), 34 percent of internet data used in Zimbabwe was directed towards WhatsApp with Facebook coming in second with a distant 3 percent (see 1.1). In Zimbabwe, WhatsApp was responsible for the most Internet data in 2017 (See 2.6.1).

Zimbabwe is already working with ICTs in providing information on HIV/AIDS. SAFAIDS is a vibrant organisation in Zimbabwe that is using ICT to harness information on HIV/AIDS. The organisation's mission is to promote effective and ethical development responses to the epidemic and its impact through HIV and AIDS knowledge management, capacity development, advocacy, policy analysis and documentation. SAFAIDS strives to be a leading southern Africa regional centre of excellence, organising, analysing, repackaging and disseminating HIV and AIDS information in response to the needs of communities (see Chapter 3).

There have also been reports showing an increase in the use of social media by both adults and young people in Zimbabwe. The United Nations Population Fund and the National AIDS Council (NAC) trained young people to use social media to improve communication about sexual reproduction issues and the HIV/AIDS epidemic. UNDP developed pilot projects with three civil groups, ZNNP+ who focus on PLHIV, Youth Engage which brings together young people aged between the ages of 15-35 years and the CeSHHAR. The three groups aim to use innovative technology, such as new and existing social media platforms, as tools for communication and advocacy on a wide range of health

and sexuality issues (See 1.2).

However, from the literature review, there are few studies to support what exactly social media is being used for by the young people in Zimbabwe.

2.6.3 Models of Disseminating HIV/AIDS Information

In an effort to reduce the spread of HIV/AIDS, researchers and health practitioners have designed different models of disseminating HIV/AIDS information. The majority of young people living with HIV are in low- and middle-income countries, with 84 percent in sub-Saharan Africa (Young people, HIV 2018). The increase/escalating HIV/AIDS epidemic worldwide among young people demands that on-going prevention efforts be strengthened, through continued development of HIV/AIDS dissemination models that seek to decrease HIV/AIDS transmission among this age group.

2.6.3.1 Educational Model

Social media can be applied to formal and informal education. Klomsri, Greback & Tedre (2013) argue that learning in institutions can be improved by using social media networks as well as interactive media. They should be therefore used in formal education institutions. Bull *et al. (*2008) and Redecker *et al.* (2010) present good examples that advocate valuable models for this study, which includes the University of Zimbabwe students in Harare. This model emphasises the formal educational role of social media.

In other models, social networks provide an avenue for affordable cost which is sustainable for HIV prevention interventions. Such interventions can be adapted and translated into diverse populations. Social network interventions may be face to face or through social media. Individuals in social networks are trained

to become peer educators who, in turn, disseminate information to lower the risk to their members in their social networks. This model has been successfully implemented among drug users, adolescents, and heterosexual women (Latkin, 2013). According to Daka *et al.*, (2017) for years, researchers, scholars, scientists, doctors and other interested people have been looking for answers concerning the spread of HIV. Many researchers, policy makers, and educators have and continue to advocate for the use of education as a social vaccine to the pandemic. HIV/AIDS continue as a key topic of discussion in the media. Daka *et al.* (2017*)* question whether education really help to reduce the spread of HIV or if social networks have an impact on the spread of the disease. These two models demonstrate the educational role that social media can play.

2.6.3.2 Community-Wide Dissemination Model

Beyond urban areas, community-wide dissemination efforts are also essential to ensure that HIV/AIDS prevention and treatment programmes are successful. Through community-wide dissemination, rural communities can benefit from the experiences of others to make use of effective strategies. In this instance, social media have an informal sharing and educational role (Rural Health Information 2002-2019)

2.6.3.3 Mass Model

The U.S. Agency for International Development (USAID) initiated the VISION Project. The project aimed at increasing the use of family planning, child survival, and HIV/AIDS services in response to the growing HIV epidemic in Nigeria. Focusing on reproductive health and HIV/AIDS prevention, the VISION Project used a mass media campaign. The study by Keating (2006)

assesses to what extent programme exposure, increased community awareness and prevention of HIV/AIDS through the sharing of information.

2.6.3.4 Internet HIV/AIDS Prevention Model

The Web site hosted by The Measurement Group uses the Internet as a tool to disseminate information about innovative HIV/AIDS prevention and treatment models. These are funded by the Health Resources and Service Administration (HRSA) Special Projects of National Significance (SPNS) Programme and highlight their effectiveness as models for HIV/AIDS care, hence it plays an expert statistical information role. Users from major universities, government agencies, large computer networks, and foreign countries have accessed the site. In these models, there is also emphasis on the potential of social media to service more specialised groups of international experts. The models have shifted the focus from urban to rural to global. The Measurement Group Web site has achieved its goal of disseminating new information about innovative models of HIV services to a global audience (Huba, *et al.* 1998).

2.6.3.5 Use of Animals in Research Models

Evans and Silvestri (2013:1) state that: "a number of key advances in HIV/AIDS research have been made possible by the extensive use of animal models, and in particular the non-human primate models of simian immunodeficiency virus (SIV) and simian-human immunodeficiency virus (SHIV) infection of various monkey species", including Macaques, Sooty Mangabeys, Vervets, and others. Key advantages of these models include the ability to control parameters that are virtually impossible to assess in humans, to extensively study cells and tissues (including elective necropsy), and to perform proof-of-concept studies that would pose unacceptable safety risks in humans.

This model underscores a wider research role for social media (Evans & Silvestri 2014).

2.6.3.6 Marketing Model

Social media can also play marketing roles. Social marketing strategies have been developed to target people on a national scale as well as at local and regional levels. Text messaging, mobile phones, blogs, as well as print and other media are dissemination strategies that can also be used for social marketing. Social marketing campaigns may focus on improving knowledge about how to reduce risky behaviors and increasing use of condoms and other mechanisms to prevent HIV. Education about HIV transmission to increase knowledge of risk factors for acquiring the disease is a main component of many social marketing interventions (Rural health and information 2002-2019).

Social media platforms, including mobile technologies and social networking sites, are being used increasingly as part of human immunodeficiency virus (HIV) prevention and treatment efforts. In several studies the importance of communicating anonymously about HIV, largely due to the stigma associated with HIV, was emphasised. The ability to share and receive information about HIV was the most commonly reported benefit of social media use (Taggart, 2015). Thus, all the models face this challenge of anonymity and privacy, and this is technology related.

From the literature, there is ample evidence of the potential roles that social media can play. The different models elaborate the distinctive roles that social media can address in disseminating information about several aspects and challenges related to HIV/AIDS. What makes this study distinctive is that it will concentrate on producing the most suitable model and formulate the appropriate roles for social media platforms to improve the dissemination of HIV/AIDS to

young people aged 18-24 in an African urban centre like Harare.

2.7 Organisations Disseminating HIV/AIDS Information in Harare

Several organisations are currently disseminating HIV/AIDS information to groups in Zimbabwe. They provide HIV/AIDS information to Civil Society Organisations and other partners, for example support group members of PLWHIV, their caregivers and the community in general. But HIV/AIDS information dissemination to these organisations is not coordinated. This resulted in a poor system of feedback from these civil society organisations, as well as the lack of accountability. HIV/AIDS information dissemination by these organisations is aimed at achieving different objectives.

The literature review under this heading will focus on and give an outline of six organisations currently disseminating HIV/AIDS information in Harare, Zimbabwe.

2.7.1 Hope Zimbabwe

Hope Zimbabwe was established in 1998. It first existed in Bindura, a town in the province of *Mashonaland Central*, Zimbabwe. It is located in the *Mazowe Valley* about 88 km north-east of *Harare*. This was Hope Bindura, and it was established in direct response to the HIV and AIDS pandemic that was facing the country.

Hope Harare was established in 2002 as a workplace programme to stop the spread of HIV and AIDS in Masasa Industrial area, Mabvuku and Tafara. Hope Harare has expanded its services to work with commercial sex workers. Hope has expanded HIV related service provision to include information dissemination on malaria, sexual reproductive health and tuberculosis.

Hope Harare is engaged in different activities including training of workplace

and community based peer educators, positive living advocates, formation of youths and community clubs, formation of support groups, health campaigns, Commercial Sex workers and the Out of school youth . Hope activists strive to do their part in HIV/AIDS information dissemination.

2.7.2 National AIDS Council (NAC)

NAC is an organisation enacted through the Act of Parliament of 1999 to coordinate and facilitate the national multi-sectoral response to HIV and AIDS. The mandate of NAC is to provide for measures to combat the spread of Human Immuno Deficiency Virus (HIV) and management, coordination and implementation of programmes that reduce the impact of HIV and AIDS. (The National AIDS Council Act Chapter 15:14 of 2000) It is also mandated to administer the National AIDS Trust Fund (NATF) collected through the AIDS Levy. This represents the 3 percent collected from every worker's taxable income (PAYE) and corporate tax.

NAC's vision is "No HIV transmission, universal access to HIV and AIDS services". The mission of NAC is "To lead and coordinate, with a motivated team, the national strategy in response to HIV and AIDS in Zimbabwe". NAC's goal is "To empower communities to reduce HIV transmission and minimise the impact of the AIDS epidemic on families and society" (no page number).

One of NAC's roles has been to disseminate and encourage dissemination of information on all aspects of HIV and AIDS to all stakeholders, among other things. NAC has been working with the youth through its "Youth Programme" which is part of the comprehensive package in the national response to HIV and AIDS. The objective of the "Youth Programme" in the national response to HIV and AIDS is to offer HIV and AIDS prevention,

treatment and management services to young people in school, out of school and in tertiary institutions. According to NAC, the adolescents are an important group in the national response to HIV and AIDS as they are the window of hope in overcoming HIV and AIDS as they constitute 40 percent of the Zimbabwean population. The programme ensures meaningful participation of young people in HIV and AIDS programmes, condom programming and sexually transmitted infections management.

According to NAC, the youth programmes are coordinated through Young People's Network on the Sexual Reproductive Health HIV and AIDS programme which is present in the country's ten provinces and is being set up in all the country's districts. The Youth Programmes are guided by the Zimbabwe National AIDS Strategic Plan 2018-2020 (National AIDS Council 2017).

NAC disseminates HIV/AIDS information to the entire population of Harare. NAC Provincial Manager is responsible for coordinating dissemination of HIV/AIDS information. The Provincial Manager is responsible for making sure that HIV/AIDS information is distributed by the District AIDS Coordinators, Monitoring and Evaluation Officers and NAC partners. Some of the strategies used by the NAC are to disseminate HIV/AIDS information, organise road shows and promote interpersonal communication in schools through special programmes (See 5.7.2).

2.7.3 SAfAIDS

Established in 1994, the Southern Africa HIV and AIDS Information Dissemination Service (SAfAIDS) is a regional non-profit organisation based in Harare, Zimbabwe, with country offices in Swaziland, Zambia and South Africa. SAfAIDS' core activities include capacity development of other HIV

and AIDS intermediary organisations (IOs); information production, collection and dissemination; networking and partnership building; and leadership in promoting dialogue on cutting-edge issues related to HIV and AIDS. With support from local partners, SAfAIDS currently implements its programmes in Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe (Southern Africa HIV 2018).

SAfAID'S mission is to promote effective and ethical development responses to the epidemic and its impact through HIV and AIDS knowledge management, capacity development, advocacy, policy analysis and documentation. SAfAIDS strives to be a leading southern African regional centre of excellence, organising, analysing, repackaging and disseminating HIV and AIDS information in response to the needs of communities. The main aims of SAfAIDS are information production and dissemination, policy advocacy for HIV/AIDS, TB and Malaria (Southern Africa HIV 2018).

SAfAIDS disseminates HIV/AIDS information mainly to women, youth, men, policy makers, and Aids Service organisations in Harare. The Communications Team is responsible for disseminating HIV/AIDS information through conferences, policy briefs, main line and online media, website and through discussion forums. SAfAIDS also targets young people aged 18-24 in disseminating HIV/AIDS information and uses Shona and English to disseminate HIV/AIDS information to young people in Harare.

2.7.4 Zimbabwe AIDS Network

ZAN was founded in 1992. The mission of ZAN is: "To strengthen community systems to contribute to national HIV, TB, and other Non-Communicable Diseases responses ensuring that the right to health is realised through an inclusive credible and representative national network of HIV and Health

programming organisations that operate at all levels", (Zimbabwe AIDS Network 2016).

Zimbabwe AIDS Network's strength lies in numbers and diversity of membership, differently niched members who have sustainable regular interface with communities. The coordinated members therefore provide a platform for which national results can easily be achieved with impact. The other pillars mainly capacity building, research and monitoring and evaluation ensure the much desired capacity for results. Advocacy issues are dealt with at every layer with only those for the next layer cascading upwards, from community to national level. ZAN has developed a nation-wide structure that is positioned to capture advocacy issues of members and communities in Zimbabwe. Advocacy issues are identified from the Chapter level up to the regional and national level.

Information sharing and networking remains a critical function of Zimbabwe AIDS Network. ZAN has an information platform which allows for the sharing of information and resources amongst the membership. Zimbabwe AIDS Network regularly sends out information on best practices as well as partnerships and funding opportunities that can benefit the membership (Zimbabwe AIDS Network 2016). ZAN's main focus is to disseminate HIV/AIDS information to Civil Society Organisations and other HIV Implementing partners in Harare. The ZAN National Coordinator is responsible for disseminating HIV/AIDS information. ZAN also targets young people aged 18-24 in disseminating HIV/AIDS information. HIV/AIDS information to young people in Harare is disseminated through social media and IEC material (See 5.7.2).

2.7.5 Zimbabwe Catholics Bishops' Conference (ZCBC)

The Zimbabwe Catholic Bishops' Conference (ZCBC) embarked on the AIDS Education programme in the early 1990s through its influence on the Ministry of Education's Action Programme. It aims to help the young people of Zimbabwe to grow up in an AIDS-free generation. A Catholic Education Staff Development team was established in 1993 and in 1995, the Catholic Education Staff Development team embarked on a programme around the country in which they were assisting teachers with methods, strategies and a Christian perspective to teaching the AIDS Action programme. This resulted in the development, by ZCBC, in 1996, of a supplement to the Government's programme, "Christian Approach to Sexuality" which was promoted throughout the Catholic Schools of the country and two colleges.

Between 1997 and 1998, workshops were held at the local levels for teachers, administrators and interested mission personnel, with a special focus on the administrators and the priests in charge of the local mission schools. It was noted that many schools did not fully implement the AIDS Action Programme, even with the assistance of workshops and teachers' supplement. It was seen that direct monitoring was necessary. During 1998 each school identified an AIDS Coordinator at the local level to assist the Headmaster with AIDS Education. Special AIDS Counselling workshops were held in 1999 in each of the dioceses for the AIDS Coordinator and another teacher from each school to assist them in addressing some of the unique problems faced at the school level due to illness, death, and care of HIV and AIDS as well as how to deal with child sexual abuses and support the victims (HIV & AIDS desk 2018).

The Zimbabwe Catholic Bishops Conference (ZCBC) uses Youth friendly Corners where peer educators share and disseminate HIV/AIDS information accessed through the Internet with other young people in a relaxed environment. There is also a help desk where youth can freely verify and ask questions on

HIV/AIDS. This enables young people requiring HIV/AIDS information to freely ask questions for clarity.

2.7.6 Zimbabwe National Network for People Living with HIV/AIDS (ZNNP+)

ZNNP+ has been in existence since 1992. ZNNP+ coordinates the interests and activities of PLHIV throughout Zimbabwe. Its aim is to improve the quality of life for PLHIV. ZNNP+ disseminates HIV/AIDS information in Harare to support group members of PLHIV, their caregivers and the community at large. The Ward, district and provincial organisation representatives. HIV/AIDS information is disseminated through coordination, community sensitisation, workshops and through Information, Education and Communication (IEC) material (Zimbabwe National Network 2017).

This chapter looked at HIV and AIDS in general, Southern Africa and Zimbabwe. It then went on to discuss development of health policies in Africa, concluding with the Health Policy in Zimbabwe. ICTs and HIV/AIDs Information Dissemination in Africa is then discussed, followed by a definition of young people and a discussion on HIV/AIDS and young people in Zimbabwe. Potential of social media in disseminating HIV/AIDS and the different models in disseminating HIV/AIDS available in literature are presented. The Chapter concludes by a discussion on some of the HIV/AIDS organisations currently disseminating HIV/AIDS in Harare.

What follows in Chapter three is a discussion on the use information and communication technologies, development of ICT Policies in Africa and initiatives on the use of ICTS worldwide, in Africa and in Zimbabwe.

CHAPTER 3

Literature Review: ICTs and Health

3.1 Introduction

This section gives a summary of some international organisations that have embarked on projects in which ICTs have been used for health, prevention of HIV and awareness, as well as dissemination of HIV and AIDS information. Literature on the potential of ICTs to access and disseminate HIV/AIDS information going back as far as 2000 is presented. This is to show that the AIDS pandemic has remained a topical issue and that solutions to combat HIV/AIDS using ICTs are still being sought.

The section then outlines some of the initiatives in which ICTs have been used in health issues, as well as in the fight against HIV/AIDS, in Asia, India, and Africa. The main focus is on initiatives in Zimbabwe, bringing out what is being done to utilise ICTs in the fight against HIV and AIDS. The strategies in all these initiatives can be adapted to fight HIV/AIDS for the benefit of young people in Harare.

3.2 Defining Information and Communication Technologies (ICTs)

According to Perron *et al.* (2010) Information and communication technologies (ICTs) are broadly defined as technologies used to convey, manipulate and store data by electronic means. This can include email, SMS text messaging, video chat, for example Skype and online social media, such as Facebook. The authors state that ICTs also include all the different computing devices such as laptops, computers and smart phones that carry out a wide range of communication and information functions. Perron *et al.* (2010) further argue that ICTs are pervasive in developed countries and considered integral in the

efforts to build social, political and economic participation in developing countries. Chandrasekhar and Ghosh (2001) state that the World health Organisation (WHO) also sees ICTs as contributing to health improvement in developing countries.

3.3 Development of ICT Policies in Africa

According to Odongo (2012) Information Communication Technology (ICT) Policy is a formal statement that specifies the objectives, goals, principles, strategies intended to direct and control the development, operation and use of ICT. Odongo (2012) emphasises that ICT policies must consider additional policies like education, trade and investment, foreign, monetary and transport policies. Odongo (2012) acknowledges that ICT policies have been recognised by African Executives. The Pan-African Telecommunications Network (PANAFTEL) coordinating committee was established in 1973 in order to mobilise the resources essential for the establishment of a system and to implement the network speedily. The PANAFTEL concept was approved in 1976. By 1982 a basic telecommunications infrastructure had been constructed within Africa, thereby allowing intra-African telecom traffic. This resulted in largely avoiding the previous long, complex and very expensive transit route through Europe. By the end of 1982, sixty-seven routes between African countries were available by using Intel Sat satellite circuits.

In developing a policy many approaches are possible, but the best approach is democratic or participatory whereby various categories of stakeholder are consulted. How did the African countries develop their ICT policies? Was consultation involved?

According to Tamukong (2007) most ICT policies in Africa were developed through participation with stakeholders. This involved representatives from

Government, local businesses, Non-Governmental Organisations, civil society, universities, international consultants and partners. For example, Botswana used a Steering Committee, seven Task Forces and key stakeholders to generate its policy in a very participatory manner. The government, civil society, the private sector and international experts and organizations participated in developing policies for Cote d'Ivoire, Congo and the Gambia. Similar polices include Namibia, Nigeria, Mali, Rwanda, Uganda and Mozambique. Unlike the other African countries, Cameroon formed a National Committee of Experts who developed and produced its policy based on a comparative study approach, complemented by a local case study. The government of Ghana was assisted by Economic Commission for Africa (ECA) to draw the ICT Policy. The same process was used for policies for Madagascar, Niger, Senegal and Morocco. Ethiopia, Malawi, Tanzania, Zambia and Kenya do not indicate the process involved in producing their policy.

According to Tamukong, (2007) every policy is guided by a vision that gives it direction and focus. However, some of the ICT policies in Africa do not have visions, but a series of objectives and goals focusing on economic and social development. Such countries include Burkina Faso, Mali, Senegal, Morocco and Egyptian (Tamkong 2007).In most cases the ICT Policy vision relates ICT to national development in education, health, poverty eradication, health, infrastructure, and good governance. Examples of ICT Policy visions for some African countries are outlined below.

The vision for Cameroon was to transform the country into an information and knowledge based society and economy by 2020, thus, the focus was on education. The vision for Benin was also on education, hence, the vision was for Benin to become an open information society that is united and make it flourish by 2025. Botswana's vision was to have the country transformed into a globally

competitive, knowledge and information society. Botswana's focus was on embracing and effectively using ICT for social, economic and cultural development. For Kenya, the vision was to have a prosperous ICT-driven Kenyan society, thus Kenya focused on poverty eradication and improving the quality and living conditions for its people. The vision for Ethiopia was to effectively use ICTs in bringing efficiency in connecting with the rest of the world in terms of laying a foundation for e-business by 2010 as well as enhancing service delivery in the civil service. For Gambia, the vision was to embrace ICTs, focusing on export trade, thus ICTs were seen as tools that would assist in enhancing partnerships for wealth creation.

The President of Zimbabwe launched the ICT framework to guide the country's economic development through a coordinated use of ICTs (Machivenyika 2018). The ICT policy framework was launched together with the Innovation Drive, a policy to provide funding for young innovators. According to the President of Zimbabwe, the ICT Policy will provide strategic direction and guidance for sustainable national economic development through systematic and coordinated application of ICT's. All sectors were encouraged to harness the power of ICT's for the development of our nation (Machivenyika 2018).

In Zimbabwe, prior to the launch on 14 March, 2018, there has been unprecedented changes in the development and application of Information and Communication Technologies (ICTs) since Independence, that is, 1980 to date. This has been as a result of fast technological developments that have been registered in the sector. The Government of Zimbabwe realised the indispensable nature of ICTs, which initiated the development of the first National ICT Policy that was finalised in 2005 (Zimbabwe National Policy 2016).

This second policy takes cognizance of the dynamism in the ICT sector, which renders it imperative that requisite policies are reviewed at certain intervals so that the country does not lag behind in this information age. Because of the dynamism in the ICT sector, the Government of Zimbabwe was cognisant that the National ICT Policy had to be reviewed at certain intervals so that the country does not lag behind in this information age.

As a result, with financial and technical support from the United Nations Economic Commission for Africa (UNECA), the Ministry of Information Communication Technology, Postal and Courier Services, reviewed the first ICT Policy. The process comprised of consultant-led nationwide consultative workshops,including local stakeholders. This took place from July to mid-September 2012, and was led by the National Economic Consultative Forum.

The first section of Zimbabwe ICT Policy comprises of reviews of developments since the inception of the first policy, including the challenges that manifested themselves during the process. The tremendous telecommunications sector developments and also the impediments to further growth were noted. Reported impediments to ICT sector growth were mainly inadequate communications infrastructure, ICT facilities, skills and data management systems coupled with unsatisfactory institutional arrangements, among other issues. These were pertinent issues and proposals to address them are proffered through this national policy. This would assist Zimbabwe to remain on the bandwagon of the information age.

The second section reviews the current status of ICT infrastructure and assesses to what extent the existing infrastructure is adequate to the needs of the public and how it is used and managed, among other issues. The policy makes it clear that infrastructure plays a key role in the development and use of ICTs. The

policy therefore recommends that the Government of Zimbabwe creates attractive investment policies to facilitate growth in ICTs.

The final section explores the e-applications and services that Zimbabwe needs to develop, among the e-government, e-education and e-health. The ICT Policy regards capacity building and e-government as major cornerstones for an ICT development strategy. The relevance of social networks that have emerged in the recent past are noted and the policy proffers recommendations for consideration by Government. Capacity building and content development, research and development, gender and other marginalised groups are taken into consideration by the policy. Participation by players from all sectors of the economy is encouraged by the implementation of this policy framework.

The status of the existing regulatory framework coupled with the institutional mechanisms is also reviewed herein. From this, it is clear that the need exists to revamp the political, institutional, economic, and security frameworks to facilitate development and use of ICTs. With the various players identified executing their respective roles conscientiously, Zimbabwe will achieve its enunciated vision of emerging as a united, strong, democratic, prosperous and egalitarian nation with a high quality of life for all by the year 2020 (Zimbabwe National Policy 2016-2020).

3.4 E-Health and Information and Communication Technologies (ICTS)

> "In a world rich with resources and knowledge, closing the gap between unnecessary human suffering and the potential for good health is one of the foremost health challenges of our times". This quote from the Rockefeller Foundation’s Equity Initiative captures the spirit behind the increasing attention paid to reducing the chasm between what is known

and what we do in health, the so-called "known - do gap" (Bulletin of the World Health organisation, 2004:800).

According to Bulletin of the World Health organisation, (2004:800) “ICT has become indispensable to health workers as the volume and complexity of knowledge and information have outstripped the ability of health professionals to function optimally without the support of information management tools”. Information and communication technology is revolutionising our lives, our ways to interact with each other, and day to day life and work. Its application in health is described broadly as eHealth, which includes telemedicine, electronic medical records, and health information systems with decision support, mobile health and eLearning tools. eHealth has shown potential in facilitating a better health care delivery system, leading to better health and universal health coverage. It creates access, enhances quality, improves primary health care interventions and can act as a solution for situations where human resources are scarce (Glob Health Action, 2012).

Development in ICT have ushered in an era of profound opportunity and potential for worldwide advancement in health and health care. eHealth systems today constitute a third major pillar on which the health sector is built. E-Health systems are an indispensable aspect of the health system of the future. At the level of individual practice, ICT systems can support the mind's limited capacity to sift through large quantities of health facts and identify those items that bear directly on a given situation. Doing the right thing, in the right place, at the right time, the right way, as LEE Jong-Wook, Director General of WHO, exhorted the staff when taking office, can greatly be facilitated through e-Health (Kwankam 2004).

The late James Grant declared that 80 percent of the children who died in Africa during his term as Executive Director of UNICEF could have been saved because the knowledge to save them existed. This knowledge simply was not available when and where it was needed. E-Health can promote ICT mediated options for all countries in the world, with a view to helping us know what we need to know, ensuring that we all know what others know, and making what is known contribute effectively to improving people's health. E-Health networks can remove distance and time barriers from the flow of information and knowledge for health, and they can help ensure that collective knowledge is brought to bear effectively on health problems in individual countries, as well as globally (Kwankam, 2004).

E-Health is an all-encompassing term for the combined use in the health sector of electronic information and communication technology for clinical, educational, research and administrative purposes, both at the local site and from a distance. It lies at the intersection of medical informatics, public health and business. Some definitions associate e-Health strictly with the Internet, focusing on the growing importance of this medium in health transactions (Kwankam 2004:800). E-health provides a new method for using health resources such as information, money and medicine and in time, should help to improve efficient use of these resources. The Internet also provides a new medium for information dissemination, and for interaction and collaboration among institutions, health professionals, health provided and the public (Kwankam 2004).

WHO defines e-Health as a cost effective and secure use of ICTs for health and health-related fields (Asamoah-Odel *et al.* 2012). In the same article, it is stated that ICTs provide a range of technologies for gathering, storing, retrieving,

processing, analysing, transmitting and receiving data and information. Among the technologies are radio, television, mobile phones, computer and network hardware and software. Services and applications associated with these technologies such as video conferencing and distance learning are also part of the technologies. According to WHO, eHealth is an umbrella term that covers a variety of areas such as health informatics, digital health, teleHealth, telemedicine, eLearning and Mobile Health (Asamoah-Odel *et al.* 2012).

E-health is the transfer of health resources and health care by electronic means. It is the use of ICT for health. According to World Health organisation (WHO), E-health encompasses three main areas; the delivery of health information for health professionals and health consumers, through the Internet and telecommunications; using the power of information technology and e-commerce to improve public health and the use of e-commerce and e-business practices in health systems (What is E-Health no year).

Access to the required technology is an issue for eHealth, as for all ICTs. To show the importance of eHealth, WHO set up the eHealth Unit which works with partners at regional and country level to promote and strengthen the use of ICTs in health development, from applications in the field to global governance. The eHealth Unit is based in the department of Knowledge, Ethics and Research in the cluster of Health Systems and Innovation.

Recognising eHealth as a cost effective and secure use of ICTs for health and health related fields, the WHO Regional Committee for Africa called on Member States to adopt and implement eHealth strategies to improve their health systems. Also recognising the significant developmental role and cross cutting impact of ICTs in regard to all aspects of national life including health, an ICT-related target was included in the Millennium Development Goal

number 8; Develop a global partnership for development (Asamoah-Odel *et al.* 2012).

The 66th World Health Assembly recognised the need for health data standardisation as part of eHealth systems and services, and the importance of proper governance and operation of health related global top level Internet domain names, including "health". The World Health Assembly Resolution WHA66.24 recognised the potential of eHealth in strengthening health systems and improving quality, safety and access to care and encouraged Member States to take action to incorporate eHealth in health systems and services (58th World Health Assembly, 2005; Geneva, Switzerland). Resolution WHA58.28; The World Health Organisation in 1998 recognised the increasing importance of the Internet and its potential to impact health through advertising and promotion of medical products, in its resolution on "Cross-border advertising, promotion, and safe medical products through the Internet" (101st Executive Board, 1998; Geneva, Switzerland).

There are several telehealth projects in developing countries, therefore, e-Health systems may be seen as a tool not exclusively for the industrialised world. Monitoring progress in the assimilation of ICT among the disadvantaged will be important as causal pathways are charted between e-Health technology and health outcomes for both the rich and the poor (Kwankam 2004:800).

According to Asamoah-Odel *et al.* (2012) there are several ways in which eHealth can strengthen health systems. These include making accessible, quality and use of information and evidence through strengthened health information systems and public health surveillance systems, developing the health workforce and improving performance by removing distance and time barriers

through telemedicine and continuing medical education. eHealth can also be strengthened by improving access to existing global and local health information and knowledge and fostering positive lifestyle change to prevent and control common diseases.

Asamoah-Odel *et al.* (2012) observe that despite eHealth projects in the Region continuing to be on a small scale and fragmented, countries are under pressure to adopt ICT-associated services. This has been necessitated by the rapid advances in. As a result, most of the countries in the Region are implementing telemedicine and eLearning projects. Some of the countries are already using mobile phones to support the delivery of health care, awareness and education, and reporting and responding to disease outbreaks and emergencies, among other activities. Satellite technologies are being used to broadcast health promotion to patients and health workers in hospitals and clinics.

3.4.1 E-Health in Africa

According to Milligan (2015) Africa's basic infrastructural challenges are poor transport links and the limited number of medical professionals and clinics which have long hindered the health sector. However, Milligan (2015) states that across the continent, Africa's innovators are looking to leverage technology to ensure that quality medical care is universally accessible. Milligan (2015) further states that there are five exceptional e-Health start-ups making an impact in healthcare provision continent-wide.

In Kenya start-up Totohealth uses short message service (SMS) technology to help reduce maternal and child mortality. Registered users receive two SMS each week. One is tailored towards the health of the child and another towards the health of the mother; with the information contained corresponding to the parent and child's profile. The platform provides parents with information on

symptoms and signals of illnesses to watch for in their children, until a child's fifth birthday. The Totohealth programme was launched in March 2014 and initially raised USD 60,000.00 which was used to pilot its technology in Kenya. The startup is working on raising another USD 30,000.00 because it wants to expand its operations to the Democratic Republic of Congo (DRC), Nigeria, Uganda and Zimbabwe.

In South Africa, Vula Mobile connects general health workers in remote areas with specialists in hospitals via a mobile app. focusing on eye health. Vula Mobile allows health workers to capture patient information, take photographs, do a basic eye test and record a brief medical history before sending it directly to a specialist. Health workers are able to seek advice over a dedicated messaging platform, and decide on the best course of care for patients. Another startup, CenHealth allows users to keep an electronic version of their heart records, storing information from weight and height to allergies, to test and X-ray results and allowing users to keep a health diary of all doctor appointments.

InstaHealth, previously known as M-Tambula is a health information app. In Uganda which allows anyone with a feature phone or smartphone to access health information instantly. InstaHealth uses geo-location and an interactive voice response (IVR) system to connect users to health centres, specialists, ambulances and consultation services, while also providing an instant first aid guide, doctor consultations and health awareness information. The startup is already planning its PanAfrican expansion so that it is not just locally focused. In Morocco, startup DabaDoc launched in early 2014 allows users to find doctors and book appointments online in Morocco, Algeria and Tunisia. There are over 2000 doctors listed on the platform across these three countries in seventy two different specialists across fifty cities.

3.4.2 E-Health in Zimbabwe

Zimbabwe's E-Health Strategy 2012-2017 acknowledges that, globally all sectors are embracing Information and Communication Technologies (ICTs) to enhance service delivery and increase competitiveness. It therefore follows that health care is no exception. The E-Health Strategy 2012-2017 also acknowledges that ICTs can greatly change health care delivery systems and transform how health systems are run.

The World Health organisation defines E-Health as "the combined use of electronic communication and information technology in the health sector". In more practical terms, “E-Health is the means of ensuring that the right health information is provided to the right person at the right place and time in a secure, electronic form for the purpose of efficiency of health care delivery” (Zimbabwe's E-Health Strategy 2012-2017:6).

According to Zimbabwe's E-Health Strategy: Ministry of Health and Child Welfare, 2012-2017, ICT have the capacity to strengthen critical functions in health by improving the ability to gather, analyse, manage and exchange information in all areas of health. The areas range from human resource training and research to large scale population level systems from tracking diseases to resource allocation through evidence based decision support systems. Zimbabwe's E-Health Strategy, (2012-2017:6) further states that through the use of ICTs in health, "the right health information is provided to the right person at the right place and time in a secure electronic form to optimise the quality and efficiency of health care delivery, research, education and knowledge", the same as stated by WHO.

Key tools and applications in health include tracking individual patient records over time throughout the health delivery system, and these include electronic Medical Record Systems. Telemedicine services which enable electronic exchange of medical information from one site to another to improve patients' health status and mobile health in which mobile devices are used in health delivery. Mobile technologies can be used in disease monitoring and reporting. Medical Education and Research Services are supported through access to evidence based clinical practice and training through global knowledge repositories. The quality of health practitioners that are in Zimbabwe can therefore greatly improve. Access to international and national knowledge repositories are a rich source of reference for health service delivery.

Zimbabwe has been making remarkable progress on the technological front after recording tremendous growth in internet penetration, which has not gone unnoticed the world over although there is little appreciation of our achievements as a country within local communities. The country's internet penetration rate has jumped from an all-time low of 11 percent in 2010 to 47 per cent in 2016. The rate is still growing with indication pointing to a further growth of 3 per cent in the last quarter, while the mobile penetration has soared to a new all-time high of 103 per cent. According to the Postal and Regulatory Authority of Zimbabwe (POTRAZ), Zimbabwe's total number of internet subscribers was 6.1 million as at June 30, 2014.

The International Telecommunications Union (ITU) Development Index ranks 157 countries, according to their level of ICT access, use and skills. For the first time ever, in 2015, Zimbabwe was placed on the list of technologically advancing nations world over. The international Telecommunications Union (ITU), comparing 2012 and 2013 scores by December 2011, found that

Zimbabwe had about 1.4 million (12 percent of the population) accessing the internet. The country continues to increase its access to the World Wide Web through numerous fibre optic links linking the country to the rest of the world through international links such as the SEACOMM cable in the Indian Ocean (Rutsito, 2014),

A major challenge in Zimbabwe has been the erratic power supplies through load shedding. A national ICT policy is already in place in Zimbabwe and efforts are being made to incorporate numerous sector wide policies including eHealth. A number of eHealth applications including strengthening of the national health information system through the use of the District Health Information System (DHIS) are underway. This system is deployed throughout the country and captures data from all the 67 districts in the country. Mobile phones being used in remote facilities and reporting to the national database, thereby supporting the application tools. Tracking for Human Resources for Health is through an integrated database system that includes relevant regulatory authorities, and the Ministry of Health and Child Welfare. The system is capable of transferring data to the National Health Management Information System (HMIS) which is the DHIS. Private sector systems and ordinary citizens have been empowered to query whether the health practitioners are registered with their respective councils. The College of Health Sciences (former medical School) now have in place, a telemedicine application whereby teaching and training is provided to undergraduate medical practitioners. The College of Health Sciences has access to key international data repositories currently accessible to postgraduate and undergraduate health practitioners (Zimbabwe's E-Health Strategy 2012-2017).

EHealth in Zimbabwe also faces other challenges in order for it to be fully implemented in Zimbabwe. Health care training institutions outside Harare are disadvantaged because of the limited connectivity to the global information highway; costs of Internet and acquisition of equipment is still high in Zimbabwe. e-health implementations are not well coordinated, and this may result in serious duplication of effort causing unworkable system implementations. Zimbabwe needs to therefore, come up with a common vision on e-Health that encompass expectations from all stakeholders in health care, including patients and ordinary citizens. The vision must incorporate international best practices.

3.5 Introduction to Initiatives on Use of ICTs

What follows is a discussion about ICT initiatives in several countries on HIV/AIDS information projects that have been embarked upon in an effort to combat HIV/AIDS. The section will first focus on ICT initiatives that have been taken by different networks/organisations, initiatives that have taken place in the United States of America, Asia and in some African countries. It then discusses initiatives that have used ICTs in disseminating health information targeting certain countries in Africa, ending with initiatives that are taking place in Zimbabwe. Each of the sections above will end with the latest social media initiatives that have taken place in these countries in disseminating health or HIV/AIDS information.

3.5.1 Initiatives & Networks of Use of ICTs by International Organisations

This section focuses on networks and initiatives on the use of ICTs in accessing and disseminating HIV/AIDS information in an effort to combat the HIV/AIDS

pandemic. These initiatives mainly involve international organisations and non-governmental organisations such as the British Broadcasting Corporation (BBC) World Trust, the Kaiser Network, the World Bank, United Nations Educational, Scientific and Cultural Organisation (UNESCO) and PLAN.

Kalichman *et al.* (2008) and Catania (2003) are in agreement that ICTs have an important role to play in the prevention of HIV/AIDS especially in the developing world. The authors identify various initiatives that have been introduced as part of a programme of 'Intensifying HIV Prevention' using ICTs. The three authors agree that HIV/AIDS is a disease of the 'information age' and that ICT tools should be utilised to fight the epidemic. Among the key drivers of the disease are 'denial, inaction, ignorance, stigma and discrimination', but all of them can be overcome by introducing communication technologies and utilising all forms of media. However, for ICT-driven interventions to be a success (Catania 2003) notes that projects should be informed by government policy, and be respectful of different cultures. Lilian *et al.* (2017) propose Geographical Information Systems (GIS) as a novel way in which ICTs can be used in the fight against HIV/AIDS. GIS technology can be used to track and map the extent of the disease so that resources can be focused in the most needed population or areas, thereby combating the spread of HIV/AIDS. The authors outline measures that can prevent people contracting HIV/AIDS using the latest media technologies.

Webb and Zimet (2006) list several pogrammes that promote responsible sexual behaviour. The British Broadcasting Corporation (BBC) World Trust with the Kaiser Network and Viacom have produced some of those programmes which aim to lower the HIV/AIDS infection rate among adolescents and adults that are most sexually active. The collaboration is the first for two media organisations

and a health foundation to fight the disease. However, Webb and Zimet further note that the programmes would be more useful and effective to a greater variety of people if they were available in a variety of languages. The BBC's World Trust service program has also conducted a series of focus groups on Angolan youth to find out whether or not radio programmes can help to reduce the stigma surrounding HIV/AIDS. The focus groups have allowed the world service to produce 16 different programmes that run practically nation-wide to reduce the stigma surrounding HIV/AIDS. The programmes have included Angolan celebrities such as footballers to make the programmes more appealing. In order to prevent the marginalisation of certain groups in Angola, the programmes are broadcasted in all local languages.

According to Smith (2008) PLAN, an international NGO, information about HIV/AIDS in Africa is being effectively disseminated using radio. PLAN is involved in projects centred at a community level and aim to empower social networks in order to safeguard the future youths and adolescents. Radio was used to raise awareness of various aspects of HIV/AIDS with the specific aim of appealing to AIDS orphans, or children whose parents were dying from HIV/AIDS in Malawi. A range of multi-media series has been produced by the Soul City NGO to impart information about HIV/AIDS and other health related issues. It is hoped this information provided through the mediums of television and radio programmes will assist in changing the attitudes of the audiences, and empower people to make informed choices about their sexual health. The television and radio series have proved to be very success of the television and radio series is supported by the winning of prestigious awards and the series have reached a wide range of people.

A project called AIDSWEB led by the World Bank in seven African countries addresses HIV prevention by working with secondary school students who have

access to Internet learning centres in schools. The project focuses on an e-mail based, on-line education module series, with a reproductive health specialist serving as an on-line facilitator for students and teachers. The participants work through five modules namely: cultural exchange, basic facts of HIV/AIDS, importance of HIV/AIDS, challenge of HIV prevention and social action. The project emphasises exchange among the youth participants themselves. The on-line facilitator and the lead classroom teachers help broaden the on-line discussion through comments and reflections. Participants explore myths and misunderstandings, conduct research, and discuss how they can prevent HIV in their own lives and communities (Information and Communications Technology 2003). An evaluation of the above project in Botswana, Ghana, South Africa, Uganda and Zimbabwe compared the knowledge and computer use of AIDSWEB participants with nonparticipants of similar backgrounds in nearby secondary schools. AIDSWEB students were almost twice as likely to identify correctly all methods of HIV prevention and transmission (75 percent compared to 41 percent) and had greater access to computers than the control group.

UNESCO also identifies a key strategic focus on preventing people from catching HIV/AIDS. It uses diverse activities to encourage the development of ICTs in response to the HIV/AIDS epidemic. One such initiative helps to educate young people on AIDS-related issues using communication technologies, which promote awareness and understanding. It also educates and trains teachers how to teach effectively through distance learning (Wilder 2000).

An *et al.* (2014) in their study to examine how pre-exposure prophylaxis (PrEP) has presented and disseminated on Twitter, which is one of the most popular social networking sites, determined that Twitter was used to generate public discussions and collectively interpret new medical information especially in

frequently propagated tweets and from users with more followers. According to An *et al*. (2014) social media is becoming a popular platform to disseminate and discuss health information. The authors assert that Twitter has emerged as one of the most popular online social networking and micro-blogging sites that enables users to share their perceptions and experiences.

What follows are initiatives in which ICTs have been used to access and disseminate health information in the United States of America, Europe, Asia, India and Africa. Each section ends with examples of social media initiatives that have been used in accessing and disseminating HIV/AIDs information in an effort to fight this pandemic.

ICTs bring a number of advantages to communication for development strategies. This is changing the way in which information is created, shared and disseminated, as well as the way in which sexual health information is sought, accessed, filtered and consumed. These advantages of ICTs mean they have the potential to address the challenges of HIV/AIDS awareness, HIV/AIDS information dissemination and to extend HIV prevention and care. The same strategies can be adapted and used to disseminate HIV/AIDS information to young people in Harare.

3.5.2 Initiatives of use of ICTs in the USA and Europe

According to Kizito & Suhonen (2011) there are several examples of ICT-based HIV/AIDS preventive education solutions in Western countries. In the United States of America, various technology supported HIV/AIDS preventive solutions have been implemented to target HIV positive adults, men who have

sex with fellow men, HIV positive adolescents and at risk young adults. The programmes are aimed at reducing risk behaviour and increasing STD/HIV knowledge, HIV/AIDS awareness and condom use. For example, online educational resources were implemented in order to distribute information about HIV/AIDS-related conferences, workshops and preventive issues. In order to increase HIV/AIDS preventive knowledge and to inform the users about the available services, SMS solutions have also been implemented to. Kizito & Suhonen (2011) assert that text messages proved to be a feasible tool for HIV/AIDS preventive education. Awareness of the dangers of HIV/AIDS epidemic to the youth have been created by the implemented solutions. Kizito & Suhonen (2011) identified the following initiatives that have been developed for HIV/AIDS preventive education in the United States of America (USA) and Europe.

In an effort to increase the HIV/AIDS knowledge, protective attitudes and risk reduction in early adolescent girls, “Keeping It Safe” environment was created. Through this platform, girls were taught basic medical information on HIV/ADS, including how it is transmitted as well as behaviours that reduce HIV/AIDS risk. Through an interactive game, girls identified facts and myths about HIV/AIDS. Feedback for their response was provided to the girls. Sistas Accessing HIV/AIDS Resources At-a-click, (SAHARA) is an interactive website that is gender and culturally sensitive to African-American women in between 18 to 29 years of age. This intervention focuses on ethnic and gender pride. Information on HIV/AIDS risk-reduction information, sexual negotiation skills, proper condom use, and development of partner norms supportive of consistent condom use is made available (SAHARA: Sistas Accessing 2016). Jerusalem AIDS Project (JAIP) was originally launched in 1986 to provide

regular HIV/AIDS education to thousands of young Israelis, both in and outside of schools

JAIP aims at preventing HIV/AIDS infection, increasing awareness of HIV/AIDS, encouraging changes in attitudes and behaviour, and increasing acceptance of people living with HIV/AIDS. JAIP is facilitating communication about HIV/AIDS through a triangular model that involves students, parents, the community at large and school staff (Woodrow, 2009).

The University of Rome, Taurus, Euro-net, Save the Children, Tempo and Agora run the European project AIDS. Through an e-learning environment, the project aims at strengthening the education and training on HIV/AIDS prevention education which is used by teachers, medical staff, volunteers, social workers and trainers of adult education institutions. Available on the website is informative space for visitors, learning content and material for online courses and lastly the communication level for sharing experiences and keeping up-to-date with issues related to HIV/AIDS (Victor, 2008). A study in Europe, according to Rodecker (2010) showed that social networking offers new opportunities to enhance innovation and creativity by producing one's own digital materials, involve learners in more activity with their own learning process. The same study also found out that social networking activity support life-long learning by offering accessible, flexible and dynamic learning environments. The study also deduced that social networking activity that can complement and supplement initial training, reduce inequalities by increasing access to information and reinforce active citizenship.

In their study, the UCLA Harnessing Online Peer Education (HOPE), Jaganath *et al.* (2012) sought to determine the acceptability, feasibility and preliminary effectiveness of using online social media for peer-led HIV prevention,

specifically with a focus on African-American and Latino Men who have Sex with Men (MSM). In that study, participants joined an online Facebook group related to HIV prevention and they communicated with peer leaders trained in the fundamentals of HIV prevention and behaviour change over a twelve week period. The results were compared to the results from previous studies of community based testing to preliminary determine whether social networks were a viable platform that could be used to scale community based HIV prevention methods.

Redecker *et al*. (2012) bring out an interesting aspect of a link between innovation and social networks. According to Redecker *et al.* (2012), there are four Cs of innovation supporting character of social networks. The first one according to the authors is "content" which supports learning and professional development in a lifelong learning continuum. It also contributes to equity and inclusion and puts pressure on education and training institutions to improve the quality and availability of their learning material. The second "C" is "creating" which leads to publishing digital content, thereby enabling learners to gain new knowledge along the way. Learners and teachers can take advantage of the vast amount of user generated content. The third is "connecting" which results in linking with other learners and exchanging knowledge in different fields of interest supporting innovation. The last one is "collaboration" which brings in an element for teachers and learners to work together as well as pooling resources and gathering the expertise and potential of a group of people committed to a common objective.

Klomsri, Greback & Tedre (2013) concluded that Facebook is all about sharing. The interviewed young adults are therefore exposed to a rich flow of information every day and on every post. The result is that people on the

Facebook platform socially interact by giving feedback resulting in supporting and encouraging each other as well as expressing their own thoughts on other members' posts. The authors also concluded that Facebook gives participants a chance to express their personal options and question different matters which empowers them as active producers and critics of information, not only passive consumers. This study shows the potential of social networks in the sharing of knowledge among the 16-24 age group in South Africa. The study shows that there is potential in using social media in the dissemination of HIV/AIDS information among the young people in Harare.

Heldman, Schindelar & Weaver (2013) are also of the opinion that through social media, public health organisations can target and reach diverse audiences. The authors argue that audiences have different preferences for receiving health information. Some prefer receiving printed material whereas others prefer receiving health information and communicating with public health organisations online. The authors argue that in the United States, 59 percent of the adults who use the Internet reported that they had searched for health information in 2012. 35 percent adults reported that they had gone online specifically to understand an emerging health condition. Duggan & Brennar (2013) support Heldman, Schindelar & Weaver (2013) by asserting that with the number of social media users steadily growing, social media present an opportunity to reach audiences who may prefer to receive health information through these channels. In addition to reaching diverse audiences, Heldman, Schindelar & Weaver, (2013) raise the following points regarding social media, "social media allow us to share relevant content in new and emerging channels, test how our messages resonate in different spaces. Through the use of social media channels, public health organisations can share relevant content, where users are already spending their time" (Heldman, Schindelar & Weaver 2013:3).

Another critical point according to Heldman, Schindelar & Weaver (2013) is that health organisations can listen and collect feedback in real time. A unique characteristic of social media is that health organisations are capable of learning more about their audiences by paying attention to social media conversations at the aggregate level as they are unfolding in real time. Social media also permit us to increase direct engagement to maintain and increase trust and credibility" (Heldman, Schindelar & Weaver 2013:4). According to Heldman, Schindelar & Weaver (2013) social media engagement is an important area of study and is justified for further discussion for public health communication. They go on to say that social media have become ubiquitous and should therefore not be dismissed as a passing phase or trend. Social media also allow users unprecedented access to public health organisations and leaders. According to Heldman, Schindelar & Weaver (2013) quite a number of public health leaders are establishing an official spokesperson presence in social media. For example, the directors of CDC, the National Institute of Health and other public health leaders have all built a robust Twitter audience. One important expectation is that social media users expect individuals on the social media to listen, respond and interact in a personal way that reflects both the leaders and the organisation's personality and priorities.

3.5.3 Initiatives of use of ICTs in Asia

The Asian Harm reduction Network (AHRN) was conceived because of the need to link people and resources involved in HIV/AIDS prevention. The AHRN Secretariat in Thailand serves as a hub in order to carry out its mandate: networking, advocacy, information sharing, training and programme and policy

development for people keen on promoting health among individuals who use drugs. Since 1999, the AHRN clearing house has been collecting and digitising resources which became available a year later from the Information Sharing Facility at www.ahrn.net. Access generated (free) memberships and members also received the AHRN newsletter by regular mail. The ahrn-list, a discussion group hosted at yahoo groups also sent out news and queries and responses.

Its members are a niche of people interested in drug use and HIV/AIDS in Asia. With these services, AHRN captured the interests of individuals who use drugs. Recently, AHRN embarked on a programme of responding to inquiries promptly, keeping a keen eye on vital issues and establishing relationships with individuals and organisations who are key players in harm reduction in the region. Keeping in mind that not everyone has access to the Internet, the AHRN newsletter started reporting on key issues in the field (policies, programme, advocacy) and extended its network bulletin with country updates, regional meeting reports and current news (Lorete 2003). Organisations dealing with HIV and AIDS in Zimbabwe can therefore have access to HIV/AIDS information being collected through initiatives like the AHRN, and make it available to young people via social media. This information can be repackaged to meet the information needs of this target group to make sure that the young people in Harare are not disadvantaged.

In January 2013, TemanTeman.org launched its website and social media campaign using celebrities and edutainment to promote HIV awareness in Indonesia. The site features hundreds of videos in which Indonesian celebrity ambassadors and healthcare experts discuss HIV. In less than two years, it has

garnered nearly 400,000 visitors, and the celebrity ambassadors have reached millions more by posting about HIV on their social media pages. TemanTeman.org has also reached individuals through public HIV awareness photo exhibitions and mobile HIV testing events. “Teman-teman” means “friends” in both Malay and Bahasa Indonesia. Like Indonesia, Malaysia is an Islamic majority country with an HIV epidemic concentrated among key populations, including people who inject drugs, men who have sex with men, transgender individuals, and female sex workers. According to Tarandeep Anand, project director of TemanTeman.org “TemanTeman.org Indonesia has demonstrated the feasibility of engaging Indonesians in HIV awareness and is a step forward in reducing the stigma associated with HIV testing in a culturally sensitive setting. It makes sense to use this communication technology campaign to increase HIV testing and linkage to treatment in Malaysia, which shares a similar cultural heritage and language with Indonesia (Online HIV Awareness 2014).

Young (2014) reports that social media have empowered patients to connect with others online to exchange social support. According to Chen and Shi (2014) Social support refers to an interpersonal transaction involving one or more of the following: emotional concerns, instrumental aid, information and appraisal. Social support is usually transmitted through social ties to achieve its health outcomes. Social ties are defined as the relationships built are based on resource exchanges such as information services and social support (Chen & Shi 2014). The strength of social ties is measured by the duration of relationship frequency of contact and reciprocity. Wellman & Wortley (1990) found that strongly tied pairs generally produced emotional support, companionship and tangible services whereas weakly tied pairs tended to produce only international support.

In their article "Social support exchanges in a social media community for people living with HIV/AIDS in China", social media has become an important source of social support (Chen & Shi 2014). In January 2011, people living with HIV/AIDS in China created an online support group by the name HIV/AIDS Weibo Group on the Weibo which is the Chinese Twitter equivalent, (Chen & Shi 2014). Weibo provides the same microblogging service as Twitter. Weibo users went a step further and created interest groups on it. Chen & Shi (2014) examined how social support was transmitted in this social media community. At first, messages over five weeks, that is, 2 May 2011 to 13 June 2011 were randomly selected from the online support group. The results of the study showed that pairs with high level of contact frequency or reciprocity on informational and emotional social support exchanged more information support than do pairs with a low level of contact frequency or reciprocity.

3.5.3.1 Initiatives of use of ICTs in India

There are a number of ICT-based initiatives underway in India to disseminate information about HIV/AIDS. Endaids.org is a website launched in 2000, and contains information on HIV/AIDS, The website has been especially designed for young internet users. End AIDS India approaches the challenges of HIV with hope and positivity. Its aim is not just to prevent HIV from spreading, but also to ensure a healthy and dignified life for children and adults living with HIV. Topics covered on this website are presented in simple language and includes information on HIV/AIDS symptoms, prevention and treatment. Queries which usually arise about HIV/AIDS, and guides those suffering from

this disease are covered. The material chosen for this website is especially oriented for use by the Indian population (End AIDS India 2017).

In response to the HIV/AIDS crisis, End Aids India e-chat platform, a virtual solution was developed in India to connect the key stakeholders. The forum facilitates knowledge sharing, networking, communication, ongoing policy dialogue and collaboration among those who are involved or interested in HIV/AIDS-related issues in India. The e-Forum strives to become an active body of conscientious public opinion on HIV/AIDS-related issues in India ((End AIDS India 2017).

Mobile games on HIV HIV/AIDS awareness is another initiative implemented in India. “The Delhi-based gaming e-learning company ZMQ Software Systems has developed games on HIV/AIDS awareness for mobile phones using the Reliance InfoComm network, one of the world's biggest social initiatives using mobile devices. The project is supported by the Delhi State AIDS Control Society and is an example of using mobile devices in the field of social welfare. The project known as Freedom HIV/AIDS, launched on World AIDS Day, 1st of December 2005 uses information, education and communication methodologies to educate people in India about HIV/AIDS” (Maitrayee 2007:139).

The Heroes Project (Maitrayee 2007), which was launched in July 2004, is a public education initiative which works with media organisations and key popular figures in India to develop a range of coordinated campaigns to address the spread of HIV/AIDS. The website shows how this is being done, for example, through appropriate storylines in popular television series, support for journalists to encourage sensitive news and editorial coverage. Through the "Ask our Doctor" facility and online HIV/AIDS quiz, Online counselling and treatment guidance is also available through the website. The Heroes Project

aims to reduce stigma and discrimination by educating the public and advocating a change in policies.

Since 2001, The International non-profit group Population Services International (PSI) has been running the Saadhan HIV/AIDS Helpline for HIV/AIDS prevention in Mumbai. Support and referrals to those who telephone the call centre are provided by trained counsellors (The Saadhan helpline 2003). The counsellors use customised software, which contains a databank with a comprehensive list of possible questions and appropriate responses that enable them to answer questions promptly and correctly. Contact list of health and social services to which clients can be referred for further support and medical attention are also contained in the databank. The software is capable of tracking clients, thereby enabling counsellors to easily follow up clients with repeat calls. Counsellors are able to access slang and vernacular terminology that clients may use through the local “lingo” list.

Rajaraseni, (2008) presents a research article from the Development Gateway and discusses how utilising the increasing use of computers and mobile technology in India could reduce the increasing number of people suffering from HIV/AIDS. Through the National AIDS Control Organisation which uses computer based software to operate their toll free telephone help lines, ICTs are being used to combat HIV/AIDS. The organisation is also producing several CD-ROMs for use in schools and hospitals to support training and capacity building programmes. There is also a low-cost e-Health program that can help reach the most marginalised people is in operation across India. The Jiva institute, a non-profit research and design institute introduced a program called 'Teledoc' for the dissemination of HIV/AIDS information among the affected and infected population in India (Technology, E-Health & HIV 2017).

Various talk radio programmes have also been introduced as a way of disseminating HIV/AIDS information. The use of 'One World's Radio AIDS' Network programme is one such example introduced in India. The station aims to allow people to share their experiences of HIV/AIDS, reduce the stigma associated with the disease and combat discrimination. According to One World, the problem of information dissemination is because most radio and other audio programmes produced with a similar intent are confined for use in the geographical location that they are produced. The One World Radio AIDS network provides a searchable database for uploading and downloading different audio resources about HIV/AIDS, copyright free, resulting in anyone with internet access listening to the material via the Internet.

Aggarwal *et al.* (2009) piloted a voice-kiosk system in Indian villages where users can obtain information on a variety of topics such as family and health and also post advertisements similar to a classifieds section. A kiosk operator, based within the community is allowed to change or modify the content on this voice-based forum. The above strategies are lessons for Zimbabwe considering that the majority have access to a phone or the radio. It is necessary to contextualise the HIVA/IDS information by making it available in languages that can easily be understood by the young people. The same strategies can be adapted for disseminating HIV/AIDS information to the young people in Harare.

According to Taggart *et al.* (2015) in their paper "Social Media and HIV: A Systematic Review of Uses of Social Media in HIV Communication", social media, including mobile technologies and social networking sites, are being used increasingly as part of human immunodeficiency virus (HIV) prevention

and treatment efforts. Social media is perceived as an important avenue for communication about HIV, social media use may therefore continue to increase and become more widespread. The objective of this review paper was to present a comprehensive systematic review of the current available published literature on the design, users, benefits, and limitations of using social media in communicating issues about HIV prevention and treatment in India. Using a systematic approach seven electronic databases and a manual search were used to survey all literature published before February 2014. The inclusion criteria consisted of a primary focus on communication/interaction about HIV/acquired immunodeficiency syndrome (AIDS), discussions on the use of social media to facilitate communication. The review also showed that communication on the social media platform is between individuals or a group of individuals rather than the use of pre-set, automated responses from a platform, published before February 19, 2014, and across all study fields (Taggart *et al.* 2015).

The search identified 35 original research studies. Among the 8 social media platform types described, short message service text messaging was most commonly used. Platforms served multiple purposes including disseminating health information, conducting health promotion, sharing experiences and providing social support. Social media users were diverse in geographic location and race; users were aged 18-40 years with lower income. Although most studies did not specify whether use was anonymous, studies emphasized the importance of being anonymous when communicating about HIV through social media. This is as a result of the stigma associated with HIV. The ability to share and receive information about HIV was the most commonly reported benefit of social media use.

The findings from this review illustrate the value of using pre-existing social media platforms, the diversity among the characteristics of users, and the

importance of the role of anonymity on the platform. Consideration of these findings will help extend the field of social media, specifically when related to communication about HIV prevention and treatment. Findings from this review also show that social media is a promising approach to engage individuals in a dynamic discourse about HIV prevention and treatment, and may allow diverse groups to collaborate on strategies to address the epidemic (Taggart *et al*. 2015).

3.5.4 Initiatives of use of ICTs in Kenya

In Kenya, AfriAfya (African Network for Health Knowledge Management and Communication) was established in 2000. Afriafya is an organisation comprising health Non-Governmental Organisations, the Ministry of Health and interested individuals in Kenya. These groups met at a workshop in April 2000 to deliberate on how ICT could be harnessed for community health, and a consortium called AfriAfya was established. AfriAfya, African Network for Health Knowledge Management and Communication, was established in April 2000 by Kenya-based health development agencies to explore new opportunities for harnessing communication and information technology for community health. While modern ICTs had provided commercial entities, universities, ministries, research institutions and big hospitals with information and assistance in their activities, it had done very little for rural communities, particularly rural Kenyan and African communities in the area of health. (Nyamai 2002).

AfriAfya was established to explore practical means of “harnessing ICT for community health”, and turning all the good ideas often expressed in this field into practical, useful reality on the ground. It aims at improving health through increasing the availability of relevant up to date health information in target

communities. AfriAfya recognised that while there is an abundance of health information in the world today, there is a severe scarcity of health information in most Kenyan rural settings, and is working to improve this (Nyamai 2002). AfriAfya set up a small coordinating hub and seven field centres selected from existing community-based health intervention sites run by the participating groups. "Communication was established between the hub and each of the Partner Agencies and field sites, and between the different field sites. Each of these sites were equipped with equipment such as a computer, its operating software, printer, data modem, WordSpace receiver and PC adaptor card. Three to four staff members from each of these sites were trained in the use of this equipment. One site was additionally equipped with a television and video machine and various health videocassettes. Where there is no electricity, solar panels have been used to power the equipment (Nyamai 2002).

In the case of Kenya, discussions of HIV/AIDS issues in communities in which it was previously very difficult to break the silence in these matters have increased. There is an increase in condom uptake in some of the field centres and increased demand for voluntary counselling and testing services in communities that were previously averse to the very mention of HIV testing. There is also an increase in community participation in health issues, with bigger turnouts at community health meetings and health action days. While it is still too early to demonstrate improvement in health through the project activities, it is clear that if these continue there will be a definite impact on HIV transmission in these communities with the attendant improvement in health (Nyamai 2002).

According to Kitagawa (2015) Mathare is one of the largest and oldest urban informal settlements in Nairobi, with an estimated population of 500,000 to 700,000 people living in shanties. A visitor to Mathare will be struck, however, by the ubiquity of mobile phone charging stations with colourful hand painted signs. According to the Communications Commissions of Kenya, 2013 (Quarterly Sector Statistics June Report) there are over 30 million mobile phone subscribers in Kenya, and one billion text messages are exchanged every three months. As a result, texting rates have dropped drastically in recent years. For the vast majority of the population in Mathare using a mobile phone is very much part of daily life. Since 2011, health counsellors in Mathare have been piloting a text messaging counselling service called Nishaun. When a user sends a text question about HIV/AIDS, safe sex and other matters related to sexual and reproductive health to the advertised number, the message is forwarded to a counsellor, who then returns a response to the user's mobile phone (Kitagawa, 2015). The same text messaging initiative can be adapted for the young people in Harare, thereby enhancing delivery and access to HIV/AIDS information.

According to Ojuondo & Kwanya (2014) the use of Information and Communication Technologies (ICTs) for behaviour change communication is one of the approaches civil society in Kenya has embraced to confront the HIV/AIDS scourge. Ojuondo and Kwanya (2014), further argue that ICTs have a great potential to enable People Living with HIV (PLWHA) and other vulnerable groups such as women and the youth to respond appropriately to and participate effectively in programmes aimed at managing the impacts of the disease. The authors carried out a study focusing on the actual role and potential benefits of ICTs in enhancing HIV/AIDS health communication in poorly resources areas in Kenyan cities. The study revealed that e-mail discussion

groups, social media, the World Wide Web, radio, television and distance learning systems are some of the ICT tools which are being used in the fight against HIV/AIDS in the slums in Kenya's cities.

The study was designed as an exploratory case study research due to the dynamic nature of ICTs. Data was collected from the four community ICT centres managed by the AfriAfya project in Kawangware Division, a slum area in Nairobi city. According to Ojuondo & Kwanya (2014), the study was a response to the deterioration of health standards and the consequent reduction of life expectancy in various Kawangware slums communities due to the rapid escalation of poverty; emergence of HIV/AIDS that triggered the resurgence of diseases like tuberculosis and other opportunistic infections; and the persistence of malaria as a leading killer disease in the slums. The primary goal of the Kawangware ICT/HIV Project was to enhance the capacity of school going children and their teachers as well as enhance the capacity of CBOs with which they associate and other grassroots initiatives in the project areas to effectively mobilise and disseminate key HIV/AIDS messages to their peers. One of the objectives of the study was to establish sustainable, collaborative communication networks to identify and respond to HIV/AIDS information needs.

Data showed that 88 percent of the respondents indicated that e-mail group discussions were used very much, much or somehow, while 88 percent of the respondents also stated that social media were popular as tools for health communication. This was as a result of its interactivity, especially amongst the youth who were the majority of the respondents in this study. The other reason why social media were also popular was because they facilitated some degree of anonymity on the part of the participants through the use of pseudo names which ensured their privacy. Given the stigmatisation associated with

HIV/AIDS, a platform which ensures confidentiality is likely to facilitate open and effective communication between the participants. 66 percent of the respondents indicated that ICT-enabled applications that encourage wider diffusion of health information from formal or informal sources were used to communicate HIV/AIDS messages in Kawangware (Ojuondo & Kwanya, 2014).

ICTs are used to enhance HIV/AIDS prevention, education and behaviour change communication mitigations. According to Ojuondo & Kwanya (2014), the use of ICTs has resulted in social change, reduction of vulnerabilities, enhanced advocacy on pertinent issues, development of supportive networks and alliances, and enhanced capacity development outcomes. Ojuondo & Kwanya (2014), concluded that effective HIV/AIDS management requires social mobilisation, networking and advocacy to ensure that all members of the society individually do their part to prevent new infections and manage existing cases. The authors also deduced that ICT-enabled communication platforms, especially the social media, facilitate the creation, mobilisation, coordination and interaction of interest groups, stakeholders, caregivers, peer educators and campaigners which boost the fight against HIV/AIDS in slums in Kenya. This study shows that there is potential in utilising social media in the dissemination of HIV/AIDS information among the young people in Harare.

3.5.5 Initiatives of use of ICTs in SA

According to Molefi (2004), the Mindset Health Channel study applying audiovisual and computer technology was implemented at 56 sites in all the nine provinces of South Africa, including urban, peri urban and rural environments. Activities undertaken by the participating organisations involved

implementing a satellite broadcast channel through which HIV/AIDS information could be disseminated at health care facilities, by broadcasting daily to both patients/general public and also professional and lay healthcare workers. In South Africa, dissemination of knowledge and information on HIV/AIDS to the community has been identified as a key strategy for the future of South Africa. According to Molefi (2004) the Mindset Health Channel was identified as a strategic and effective resource that could be used to reach a wide-ranging audience in rural and urban areas, and to improve the knowledge and skills of health care workers in managing HIV/AIDS related problems in South Africa. Selection of this project was based on the role of technology and technology transfer in its execution. Patients have the opportunity to view important health information whilst waiting to be attended to in a health care centre, unlike the previous situation when patients would sit for long hours without any stimulation or useful health information being made available to them.

Organisations dealing with HIV/AIDS in Harare can benefit from the South African route in providing HIV/AIDs information to young people in Harare. In collaboration with journalists, these organisations in Harare can have a share in programmes like the South African Mindset Health Channel. As specialised organisations, they can follow up on current researches being done on HIV/AIDS and educate people through the radio. They have to identify the information needs of young people so that radio programmes are focused on this target group. There can be radio programmes for young people already living with HIV/AIDS, and those not yet affected. These can be educated on the use of condoms, safe sex, antiretroviral drugs and living positively with HIV/AIDS.

The recordings can be disseminated via social networks, thereby reaching a wider audience of young people.

According to Pandey *et al.* (2007), access to information is a key element for stimulating socio-economic growth in individuals and communities by acting as a means to improve people's livelihoods. Pandey *et al.* (2007) further contend that access to information about entitled services alone has been found to improve the delivery of health and social services to resource-poor populations. However, numerous communities in developing world regions face many barriers to access, including infrastructure, distance, language and literacy. Due to these barriers, many government entities and non-profit institutions face challenges in delivering services, and providing timely, accurate and relevant information to their communities of interest. Grover & Barnard (2011) were convinced that automated telephone-based services or spoken dialogue systems (SDSs) could overcome these barriers and bridge the information gap as mobile phones are by far the most widespread form of ICTs in developing world regions. New announcements are rendered into audio using the speed TTS engine which is capable of rendering text into speech for all the eleven official South African languages.

The LCCS South African first multilingual, community-based telephone information service proved that automated telephony services can be used as an effective means to communicate and disseminate localised information, thereby enhancing government service delivery in rural communities. This project brings out the potential of this technology for disseminating HIV/AIDS information in rural areas.

In 2009, a market research study showed that social networking which constituted 74 percent of users was one of the main internet activities among South Africans. The study asked respondents which social network sites they

used; 82 percent of the social network users sited the Facebook, making it the leading social network site used. The same market research study showed that the main activities on social network sites were 75 percent sending messages to people, 62 percent updating status and 61 percent uploading photos and videos. This study showed that a lot of information is constantly disseminated through different social network platforms. According to Redecker, Ala-Mutuka & Punie (2010) the study also proved that the availability of social networking enable people to meet virtually, thereby providing a cheap and efficient way to learn and exchange information from other age groups and socio-cultural background, linking to experts, researchers or practitioners in a certain field of study and thus opening up alternative channels for gaining knowledge enhancing skills.

According to Klomsri, Greback & Tedre (2013) the diffusion of modern information and communication technology (ICT) has changed the way people live, learn and communicate. The three authors argue that the effects of these changes to living are not yet fully understood. Klomsri, Greback & Tedre (2013), argue that along with Web 2.0, the increased use of social networking sites such as Facebook, has resulted in large amounts of information being exchanged and spread globally at no time resulting in this new media society creating new conditions for informal learning and for a lifelong learning process.

Klomsri, Greback & Tedre (2013) assert that social media has in the recent years become a part of people's daily lives, and with it has come a new way to communicate and interact. The three authors observe that while the functions of social media in formal and non-formal learning are well studied, much less attention has been paid to their role in informal learning. The three further assert

that in South Africa, the dominant social networking service is Facebook, which crosses many digital divides in the country. The authors state that young adults are daily exposed to various kinds of information on Facebook while maintaining control of their own Facebook account activities. In their study "Social Media in Everyday Learning" (2013) the three explored the use patterns of Facebook among young, low educated South African adults and analysed the potential of those use patterns for informal learning. The results show that the social interactions on Facebook support informal learning and personal development without the constraints of time, objectives or curricula.

Klomsri, Greback & Tedre (2013 observe that while the changes brought by modern ICT are most wide-spread in the wealthy countries, the changes are dramatically seen in developing and emerging economies. The authors argue that in South Africa there are several ongoing initiatives made by the South African government to increase access to education for the entire population such as reducing unequal access to infrastructure, facilities and learning resources within the country. According to Klomsri, Greback & Tedre (2013), the South African government hopes that ICT will play an essential role in addressing societal challenges such as universal education, training, health, inclusion, security and environmental management. They state that learning through social networks is a well-researched topic. They argue that a lot of literature is about introducing social networks and interactive media in institutional establishments. Bull *et al*. (2008), in their study on connecting informal and formal learning experiences in the age of participatory media and Redecker *et al.* (2010), in their study on the impact of social media on learning in Europe are good examples of the above.

Klomsri, Greback & Tedre (2013) argue that many research studies are about the different ways in which the interactive and social aspects in digital media can promote learning and should therefore be introduced in formal education institutions.In the study, "Social Media in Everyday Learning", Klomsri, Greback & Tedre (2013), state that the mobile phone is the most used common piece of modern ICT equipment used among South Africans. The authors assert that young people have embraced technology fastest. In a survey study carried out in 2007, 72+ percent of the young people in South Africa aged 16-24 years owned a cell phone and of those, 16.3 percent accessed the Internet via the mobile phone.

3.5.6 Initiatives of use of ICTs in Uganda

ICT solutions have been implemented in Uganda in the fight against HIV/AIDS. These include On-Line Counselling services, AIDSWEB Project ePresence Software and the Indian Mobile Games to fight HIV/AIDS in Africa. The early results of the On-line Counselling Project suggest that technology could play a complementary and useful role in helping to combat HIV/AIDS. The overall HIV/AIDS prevalence rate among African youths showed the continued need for HIV/AIDS educational prevention activities specifically for uninfected youth. Kalichman & Holton (2000) report on a study conducted in Uganda to examine whether the introduction of Behaviour Change Communication (BCC) campaigns aided the HIV/AIDS prevention. It found that multi-media and ICTs may be the most successful way of improving adolescents' and adults' sexual health knowledge, especially on the use of condoms as a way of preventing the spread of HIV/AIDS.

Text to Change (TTC) provided HIV/AIDS awareness via an SMS-based quiz to 15,000 mobile phone subscribers during three months in Uganda. TTC was founded with the goal of improving health education through the use of text messaging, which holds the advantages of anonymity and strong uptake among the population. Partnering with the mobile carrier Celtel and the local NGO AIDS Information Centre (AIC), TTC conducted a pilot program from February through April 2008 in the Mbarra region of Uganda, with the objective of increasing public knowledge of and changing behaviour around AIDS. The program aimed to encourage citizens to seek voluntary testing and counselling for HIV/AIDS.

An SMS-based multiple choice quiz was administered to 15,000 Celtel mobile phone subscribers in the rural region of Mbarra. Free airtime was offered to users to encourage participation in the program; this was determined to be a powerful incentive since users could exchange the airtime with other subscribers as a type of currency. The quiz was interactive. When participants gave a wrong answer they received an SMS with the correct answer from the cell phone provider. The uptake rate of the survey was 17.4 percent and focused on two specific public health areas: General knowledge about HIV transmission and the benefits of voluntary testing and counselling. At the end of the quiz, a final SMS was sent to motivate participants to go for voluntary testing and counselling at the local health centre. Those who went to the centre were asked a final question whether this was the first time they had an HIV test? After testing, participants were requested to leave their mobile phone number so that post-test counselling could be arranged. For the people who came to the health centres through TTC, HIV testing and counselling was free of charge. Initial grants from Merck, the US pharmaceutical company, and the Dutch Ministry of Foreign Affairs supported the program launch (Text to Change 2008).

3.5.7 Initiatives of use of ICTs especially targeting countries in Africa

In 2009 Ericcson and the Earth Institute, Columbia University, initiated the Connectivity Monitoring and Evaluation study known as The Millennium Village Project (MVP). The potential for economic and social aspects of an increase in the access to mobile voice and data communications were investigated in the poorest rural parts of sub-Saharan Africa. The MVP is a community-based comprehensive multi-sectoral approach demonstrating the feasibility of achieving the Millennium Development Goals (MDGs) throughout different regions in Africa over a five to ten year period. The project aimed at forming villages empowering them with affordable science-based solutions in order to meet the MDGs. The key institutions involved in the implementation of the MVP project are Millennium Promise (MP), The United Nations Development Programme (UNDP), The Earth Institute at Columbia University (EI), and most importantly, the communities and local, district and national government agencies. The MVP is purposefully linked to the communities and national processes to ensure sustainability and scalability by the governments (Puri *et al.*, 2010).

Four MVP sites in Ghana, Kenya, Nigeria and Tanzania were selected for the implementation of the project. The objective of the MVP Project Connectivity study is to better understand the current and potential uses of mobile ICTs in achieving the MDGs. Among the objectives of the MVP project was assessing the potential impact of using mobile phones in accessing services in the health, education, small businesses and household sectors. 150 million from approximately 250 million people in this study live in rural areas. The fact that the occupational, educational and poverty characteristics of these sites represent most areas in sub-Saharan Africa, lessons drawn from these sites can provide useful insights into the potential and use for development in the rest of Africa.

The researchers used evidence from a baseline dataset of 1021 households and interviews of 235 individuals in the Millennium Village sites in rural Africa. Most inhabitants prefer to be connected even though there are high levels of poverty. Being connected is top priority because of the benefits such as increased income, decreased travel, enhanced sense of well-being and ability to respond to emergencies and specific advantages in business development, health and education (Puri *et al.*, 2010).

ICTs, particularly social media platforms such as Facebook and Twitter are increasingly being used as part of HIV prevention and treatment efforts for young people. According to Nyaruai *et al.* (2015), ICTs bring a number of advantages to communication for development (C4D) strategies. Nyaruai *et al.* (2015) state that this is changing the way in which information is created, shared, and disseminated, as well as the way in which sexual health information is sought, accessed, filtered and consumed. This means that ICTs have the potential to address limitations of conventional media challenges and to extend HIV prevention and cure.

What follows are examples where the use of ICTs has been successful in disseminating and providing access to health information. The cases were gathered through the C4D Network. The objectives of the case studies were to explore the role and potential on new ICT in HIV/AIDS response in sub-Saharan Africa, to identify good practices in the use of new media in support of programmes with adolescents and young people and to improve HIV prevention and treatment outcomes. This section will highlight some initiatives that show that the use of ICTs has potential and impact in Sexual and Reproductive Health (SRH) and HIV intervention targeting adolescents and young people. These cases that have been gathered from Ethiopia, Kenya, Nigeria, Tanzania and Zimbabwe illustrate the role of innovation in the use of ICT for HIV prevention

as well as providing information on the nature, extent and effect of ICTs among adolescents (Nyaruai *et al.*2015).

The M4Youth SMS service project was established in Ethiopia in 2014 by Pathfinder International. It uses a free, menu-based SMS service whose goal is to impact positively on students' knowledge of SRH, thereby increasing their use of relevant and safe services. The SRH information is tailored for students at Adama Science and Technology University via SMS. Students send a text to '8990' and receive messages containing menus. Students can request information from the menu, texting a number that corresponds to the topic of their interest. The information is then sent to their phone. The goal of the project is to impact positively on students' knowledge of sexual and reproductive health, thereby increasing their use of relevant and safe services (Mobile for Youth 2014).

In 2014, Pathfinder International developed a mobile application to mobilise and advocate for the increased uptake of youth-friendly services in Kenya. This was targeted at students of Kenyatta University. The project informs youth on campus about sexual and reproductive health rights, and mobilises students to take preventive action including booking of medical and counselling appointments. A project promoting contraceptive uptake among 15-25 year olds through innovative ICT and new media in Western Kenya was established in 2014. Through this project, the Centre for Adolescent Study focuses on strengthening the capacity of partners and stakeholders to provide comprehensive sexual and reproductive health information and services to young people. The centre uses SMS messages and an interactive Facebook page to relay information to young people to include awareness and prevention of sexually transmitted infections, including HIV/AIDS, prevention of

unplanned pregnancies, advice on abortion, and contacts of local youth-friendly health facilities. From 2013 to 2015, the Mwili Wangu Changuo Langu (My Body, My Choice) project was operative in Kenya. The Trust for Indigenous Culture and Health (TICAH) uses short scenario videos as a useful way to bring young viewers together to explore issues and to share their experiences with each other. The project creates safe spaces for separate peer groups of young men and women to think about attraction, intimacy, safety, health and pleasure. The programme involves a holistic approach that focuses on SRH issues including HIV prevention discussions among young people (Nyaruai *et al.*2015).

In 2015, also in Kenya, Family Health Options Kenya (FHOK) established a free, confidential and interactive 24/7 Standout 22285 SMS service that targets youth under 25. The counselling service provides information on SRHR, youth-friendly Family Health Options Kenya (FHOK) clinics, sexually transmitted infections, and HIV/AID services. Young people send a text message with the word SRH to 22285 and then follow the instructions and the code number they are given to key in, in order to access the exact information they are looking for which is sent back to them as a message. The FHOK Standout 22285 information service not only sends out general messages about SRH issues but the HIV/AIDS SMS code tailors the message to include available services and referrals to the nearest family health youth clinics for services such as HIV/AIDS testing and counselling, voluntary medical male circumcision and anti-retroviral treatment. The FHOK Standout 22285 information service project has been successful. An analysis of the SMS message system from January to June 2015, showed that there was an increase in young people accessing Voluntary, Counselling and Testing (VCT) services at the FHOK clinics referred to in messages, as well as a higher uptake of condoms at these clinics (Family Health Options).

In 1999, the Femina Hip online multimedia and civil society initiative in Tanzania used online multi-media platforms such as online magazines, TV talk shows, an interactive website, social media and an interactive SMS platform to provide youth friendly information on SRHR. Femina Hip used edutainment as its main approach to entertain and educate young people on SRHR. They maximised on social media to get young people to join Facebook groups. In 2010, Femina Hip realised that increasing numbers of its target audience were beginning to take an interest in and make use of social media as well as beginning to access the internet via mobile phones. As a result, Femina Hip opened its first Facebook account in 2010, created a profile, and invited young people in their Femina Clubs to become friends and like the Facebook page. The Femina Hip Facebook account has grown steadily and in 2015 it had over 13,500 likes. The Facebook account is updated regularly and postings generate comments and questions (Femina HIP Health 2004).

In terms of effectiveness, the above initiatives discussed above proved to work better in a controlled environment such as Facebook and Twitter chats discussions, hotline services and text-based messages targeted at a particular group. They provide instructive insights for Zimbabwe among young people.

Kizito & Suhonen (2011) also observed that mobile technologies have been used widely for HIV/AIDS preventive education and for communicating information on HIV testing places and counselling services. Kizito & Suhonen (2011) also found mobile technology solutions that were targeted towards teenagers. What follows are some mobile technologies that have been widely used for HIV/AIDS preventive education in Africa.

According to Kizito & Suhonen (2011), people's knowledge of the causes and methods of prevention of HIV were assessed through an SMS-based HIV

education system that uses a quiz format was carried out in North-Western and South-Eastern areas of Uganda. The aim of the experiment was to establish the effectiveness of a SMS-based HIV education system. "Text To Change" (TTC), an SMS based approach for communicating HIV basic facts and prevention methods to the public was adopted. According to Kizito & Suhonen (2011), TTC has a strong history of implementing behaviour change communication interventions. Participants received questions through mobile phones and they replied back to the service. Kizito & Suhonen (2011:268) concluded that "structured SMS messages can be used effectively for HIV/AIDS education in an application where errors are tolerable".

Another study involving 7000 people was carried out in Lira district of Uganda for SMS based health education. The researchers wanted to establish the effectiveness of using SMS for disseminating HIV/AIDS testing information and awareness campaign. There was a high acceptance of SMS use for the HIV/AIDS awareness campaign. Most participants stated that they gained knowledge about HIV/AIDS.

In Nigeria, OneWorld UK in partnership with Butterfly Works Netherlands and ten Nigerian partners created a mobile-based e-learning platform to provide Nigerian teenagers with relevant skills to protect themselves against HIV/AIDS and gender-based violence. Videos, SMS and news are used on the e-learning platform to allow the youth to communicate with each other on issues of HIV/AIDS prevention and to promote behavioural change. During the first month of its operation, more than 10 000 questions and answers were delivered via the e-learning (Kizito & Suhonen 2011).

The STAR programme was introduced in 2006 to fight against HIV/AIDS in Kenya, Malawi, Mozambique, Namibia, Tanzania and Uganda. The aim of the

STAR programme was designing and developing new mobile games based on Penalty Shoot Out and AIDS Fighter Pilot to increase HIV/AIDS awareness in Africa. “When saving a penalty, the player gets a message related to HIV/AIDS awareness and prevention, while scoring a goal the player receives information about transmission, myths and misconceptions about HIV/AIDS” (Kizito & Suhonen 2011:269).

In South Africa, the Masikuleke project, is cross-sector collaboration that uses mobile technology as a high-impact low-cost tool for fighting HIV/AIDS epidemic and tuberculosis. Masikuleke means “give wise counsel” and “lend a helping hand” in Zulu. The Masikuleke project brings together a world class coalition of organisations and domain experts including MTN, Nokia and Siemens Networks to test and scale up a powerful and integrated approach to fighting HIV/AIDS and tuberculosis, with the aim to leverage the power of mobile technologies to address the entire disease lifecycle. In October 2008, Project Masikuleke launched a mobile HIV-awareness campaign using simple text messaging, which has tripled volume to the South African National AIDS HelpLine, inspiring more than 150,000 people to reach out for help (Fabricant, 2009).

Aba, Aderibigbe & Olubunmi (2014) investigated the importance of social media in engaging young people on Human Immunodeficiency Virus (HIV) prevention. A social media survey was conducted among young unmarried tertiary graduates between the ages of 15 to 35 who are working in Abuja Nigeria, and, activities of the National Agency for the Control of AIDS (NACA) on Facebook from 9 August 2010 to 30 April, 2014. The data collected showed that Facebook was the most popular social media site.

According to Kross *et al.* (2013) over 500 million people interact daily with Facebook. The same authors assert that Facebook provides an invaluable resource for fulfilling the basic human need for social connection. Oluwu & Seri (2012) argue that the majority of social media users fall within the bracket of 16 to 44 years. According to Aba, Aderibigbe & Olubunmi (2014) Nigeria is the largest internet user in Africa made up of 67 percent male of which 78 percent are between the ages of 19 and 35 years. Ogunlesi (2013) refers to the Fact Bound survey conducted in Nigeria which identified networking and communication as the two most popular uses of social media in Nigeria. Facebook proved to be the most popular and widely used social media platform in the country. As a result, social media is an important platform to reach young people in Nigeria. The large population of young people with access to social media provides a platform for quick access to public health information messages in Nigeria. This motivated Aba, Aderibigbe & Olubunmi (2014) to examine the importance of social media in engaging the youth in Nigeria, in order to provide them with vital information on HIV and other public health issues.

According to the three authors (2014) the most utilised social media site was Facebook, Twitter and Google+ were other important social media sites. The results from the study show important HIV information can be disseminated to a large number of Nigerian youth through social media. The authors state that the potential exists and can be explored by all organisations dealing with issues of public health in Nigeria. There is potential in the frequent use of social media to actively engage the attention of youth and keep them safe and healthy. The authors also argue that social media is a useful platform to pleasantly and wittingly present the importance and benefits of condom use and HIV testing to the teeming number of young social media users. Aba, Aderibigbe & Olubunmi

(2014) conclude by stating that it is important that organisations involved in HIV/AIDS programmes begin to strategically tap into the huge potential available in the number of social media users in Nigeria. The examples above provide critical lessons for Zimbabwe, and can be adapted for improving the dissemination of HIV/AIDS information to the young people in Harare.

3.5.8 Initiatives of use of ICTs in Zimbabwe

In Zimbabwe different ICTs have been used to disseminate information on several health issues, and the same can be done for information on HIV/AIDS. SatelLife's HealthNet network is having a significant impact on institutional and national development in the health sector. The Health Net node in Harare provides low-cost e-mail and health information services to the health community. Raw data are sent electronically from the districts to the Provincial centres for analysis and compilation into summaries and charts, forwarded onto the Health Ministry, and then resent to the districts via Health Net. The Ministry of Health officials use HealthNet to collect and disseminate weekly surveillance reports on epidemiology and disease control to health centres around the country. Ministry personnel also use HealthNet for many other professional purposes including ordering drugs from central stores and distributing assignments to students on field attachments.

In addition, other health professionals, including users in all major city health departments, blood transfusion services and several laboratories use HealthNet on a regular basis. Several of these professionals work in the rural areas, and for them, HealthNet is their only viable e-mail connection.

The University of Zimbabwe's College of Health Sciences Library uses the HealthNet E-mail to disseminate information on different health issues to provincial hospitals. In turn, health personnel in provincial hospitals also send

their information requests to the Outreach Librarian who sends back the satisfied requests through the HealthNet E-mail.

The same concept can be used to disseminate HIV and AIDS information to young people in Harare. Information specialists, organisations dealing with HIV/AIDS and Health professionals in hospitals can collaborate to repackage the information into simple and easy-to-understand languages and these can be disseminated via social media. Social media is a fairly new concept in Zimbabwe. People view social media as a platform to communicate with friends and usually not serious information such as preventive information on HIV and AIDS. In cases where serious information is disseminated via social media, people have a tendency of overlooking it.

When Health InterNetwork Access to Research Initiative (HINARI) was introduced, the University of Zimbabwe's College of Health Sciences Library would check if the article was available on HINARI, and if so, advise the requestor, provided that the requestor had access to HINARI. If not, the College of Health Sciences outreach librarian would check in the collection, and if available, would scan the document and send it through electronic mail to the relevant library.

University libraries in Zimbabwe are also benefiting from the Program for the Enhancement of Research of Information (PERI) under the sponsorship of the International Network for the Availability of Scientific Publications (INASP). Through PERI, donors have paid subscription fees on behalf of libraries in Africa to access web-based journals (Chifwepa, 2003) at a reduced fee. INASP has played an important role in providing developing countries with information on the Internet. Through the PERI's healthlink, Medical libraries in developing countries are able to access information on almost all health issues including HIV/AIDS. This information can be made available to young people in Harare

in the same manner as described above. There is also a facility of document delivery. This allows organisations to have access to full-text journal articles not available in their local libraries. These can be repackaged to suit the young people.

The same could be done with articles about HIV/AIDS information for young people in Harare. Organisations dealing with HIV/AIDS can partner with the College of Health Sciences Library. Articles with relevant HIV/AIDS information can be forwarded to them by the College of Health Sciences Library as part of its outreach programme. In turn, these organisations can disseminate this vital information to the various groups of young people in Harare,

This section focuses on ICT initiatives currently taking place in Zimbabwe through organisations such as The Southern Africa HIV and AIDS Information Dissemination Service (SAFAIDS), the national Network of people living with HIV and ZNN+ in combating the HIV/AIDS pandemic.

SAFAIDS is a vibrant organisation in Zimbabwe that is using ICT to harness information on HIV/AIDS. SAFAIDS uses advocacy, communication and social mobilisation (ACSM) strategies to influence changes in policy and social practices. In recognition of the role that stigma and discrimination, gender inequality and related social structures and norms play in driving the epidemic and creating barriers to access to services in southern Africa, SAfAIDS works to address gender equality and the rights of women, girls and key population groups, to access sexual reproductive health services and rights by confronting complex issues like culture, human rights and stigma. In the past 10 years, SAFAIDS has complemented national programmes in HIV/TB Prevention, uptake of testing and HIV treatment, HIV treatment literacy, reduction of

gender-based violence (GBV), treatment as prevention, and linking HIV and sexual reproductive health and rights (SRHR) (Southern Africa HIV, 2016).

The SAfAIDS Resource Centre houses a wealth of information on HIV/AIDS and it focuses on the health and development aspects of the pandemic. The SAfAIDS flagship resource centres have been in operation for more than twenty years with over 12,000 resources. It is a source of information on research, programming, policies and informational and educational communication (IEC) materials, on sexual and reproductive health and rights (SRHR), including HIV and AIDS, TB, gender and human rights (Southern Africa HIV, 2016).

Among SAfAIDS units is the SAfAIDS Media unit which "acts as a catalyst for provision of accurate HIV/AIDS information and communication by partnering with the print and broadcast media at regional level. The SAfAIDS media desk uses a broad range of media strategies and Knowledge for Action approaches to cover SAfAIDS different thematic areas of HIV, Sexual Reproductive Health and Rights (SRHR) and advocacy. These include:

- Television and Radio Production (Positive Talk TV programme on ZTV;
- Radio Chikuni, Zambia and Abambo Ngati Atetezi (Men as Protectors);
- Malawi. Capacity Building of journalists and other media practitioners on SRHR, HIV and other key issues Coordinating and moderating electronic discussion forums (eForums);
- Documentary production Radio spots and adverts Dissemination of key information through articles and publications Social media (Young4Real, SAfAIDS Facebook;
- Positive Talk TV; and
- Facebook, SAfAIDS on Twitter, SAfAIDS on YouTube and SAfAIDS on Linked-In (Southern Africa HIV, 2016).

The media unit is a major source of information for communicators in the region and beyond. Media activities include timely production of pre- (media packs in English and Portuguese) and radio productions, advocacy advisory relations on media development, media for and on HIV/AIDS, or training of journalists, e-group networking, and television/audio programmes. These activities aim to increase public debate on HIV/AIDS among media and information provided, promote accuracy in coverage of and communicating about HIV/AIDS, and strengthen partnerships on HIV/AIDS communication (Southern Africa HIV, 2016).

SAfAIDS also produces Media Information Packs as a way of raising awareness on HIV/AIDS. SAfAIDS has produced Media Information packs on sex workers, living positively, AIDS in the workplace, men and AIDS, men who have sex with men and celebrating HIV/AIDS. More recently, SAfAIDS has started printing the Media Information Packs in Portuguese in order to satisfy the needs of journalist in Angola and Mozambique.

Responding to an assessment of HIV/AIDS information available to the media in Southern Africa, SAfAIDS based in Harare, Zimbabwe developed a set of media information packs in 1999. Journalists and editors from Zambia, Zimbabwe and South Africa had emphasised their need for user-friendly information on HIV/AIDS to assist them in their understanding, communication and coverage of HIV/AIDS and related issues. SAfAIDS distributed a pilot media information pack at a pre-International Conference on AIDS and STDs in Africa (ICASA) African Media Training Workshop in Lusaka, Zambia, in September 1999. Following positive feedback, SAfAIDS began full-scale production of its bi-monthly media pack. The purpose of the Media Information Pack on HIV/AIDS is to raise awareness and advocate for journalists to take an active role in disseminating information on HIV/AIDS (Southern Africa HIV, 2016).

Zimbabwe is already working with ICTs in providing information on HIV/AIDS. The material can now be segmented to suit and is for the benefit of the young people in Harare. SAfAIDS can continue working closely with journalists and can effectively disseminate HIV/AIDS information via social media to the young people in Harare in fighting HIV/AIDS.

ZNNP+ is one of the first networks of People Living With HIV (PLWHIV) in Africa and is one of the Non-Governmental Organisations (NGOs) that have spearheaded work to comprehend the Zimbabwean government's national HIV response. The network is a national umbrella body whose mandate is to represent and coordinate the interests of networks and support groups of PLWHIV, with national coverage and a membership of over 50 000 PLWHIV.

During 2014, the UNDP Innovation Facility developed a programme with support from the Danish Government to improve “HIV Results communication for Key Affected Populations”. In Zimbabwe, UNDP developed pilot projects with three civil groups, The Zimbabwe National Network of People living with HIV (ZNNP+) who focus on people living with HIV (PLHIV), Youth Engage (YE) which brings together young people aged between the ages of 15-35 years and the Centre for Sexual Health and HIV/AIDS Research Zimbabwe (CeSHHAR), who have an innovative sex worker programme called “Sisters with a voice” which operates nationally throughout Zimbabwe (UNDP Innovation Fund Report, 2014).

The overall aim of all three groups was to use innovative technology, such as new and existing social media platforms, as tools for communications and advocacy on a wide range of health and sexuality issues. The three projects aimed to include education to key affected populations, that is, PLHIV, youth and sex workers, to improve knowledge of and access to service provision, to

discuss any challenges and ways of overcoming these and to support linkages to prevention and care.

The specific objective of ZNNP+ and YE projects was to use technology interventions to ensure that young people in Zimbabwe are making use of social media platforms in advocating for political commitment around Sexual Reproductive Health and Rights (SRHR) at country level and that political commitment is sustained to respond effectively to the AIDS epidemic among young people.

The projects focused firstly on improving central communication on the organisational websites, where they previously existed and then setting up social networking forums linked to these websites. The forums were a mixture of closed forums for discussion amongst the key populations to raise internal issues and challenges as well as solutions. Closed forums included "WhatsApp" and Facebook groups, with Facebook also being used as an open forum along with Twitter and Tumbir.

Following the initial development of the central websites all groups held workshops to discuss the ways of communicating through social media and to agree how the forums needed tailoring for the groups' individual needs.

The use of Facebook social media platforms proved the most attractive to youths both within ZNNP+ and YE, which in less than two weeks rose in numbers by 60 percent and 50 percent respectively. In a bid to boost the uptake of the external communication forums ZNNP+ and YE supported the running of a Worlds AIDS Day stories in text or pictures.

The National Network of people living with HIV and Youth Engage National Youth Alliance (Y.E.) is prototyping an eNetwork using social media platforms

to enhance communication for youth living with, vulnerable to, or affected by HIV in Zimbabwe. The eNetwork uses WhatsApp to act as a catalyst for engaging and networking key populations.

In Zimbabwe, 2014, the Zimbabwe National Network for people Living with HIV/AIDS (ZNNP+) e-Network trained ten youths on the use of technological innovations as advocacy tools. The training was centred on the use of social media. Smart phones were provided for as well as ZNNP+ periodically provided them with air time after the training. The youths then cascaded the trainings to district representatives in their provinces. Social Whatsapp group platforms were formed in all the districts linking with provinces and feeding to the national social Whatsapp group managed by the Advocacy Officer. The platforms are being used to disseminate information from national to grassroots and getting issues from the grassroots. The issues identified such as drug stock outs are taken by the ZNNP+ Officer who engages with the responsible authorities and policy makers (Nyaruai *et al.*, 2015).

Y.E. is a local youth membership organisation with a voluntary membership network for young people between the ages of 15 and 35 years. Its focus is to draw members from the provincial and national level in Zimbabwe to challenge and mitigate HIV related stigma (Zimbabwe National Network, 2017).

All these initiatives are very good. However, there is still need for further investigations on these initiatives for the purpose of their potential in disseminating HIV/AIDS information to young people in Harare. The same strategies discussed above can be adapted and used to improve the dissemination of HIV/AIDS information for the benefit of young people in Harare.

3.6 Summary

This chapter presented projects in which ICTs have been used for health, prevention of HIV and awareness, as well as dissemination of HIV and AIDS information. The chapter also presented some of the initiatives in which ICTs have been used in health issues, as well as in the fight against HIV/AIDS, in Asia, India, and Africa. The chapter concludes with initiatives in which ICTs are being used in Zimbabwe in the fight against HIV and AIDS. The strategies in all these projects and initiatives can be adapted to fight HIV/AIDS for the benefit of young people aged 18-24 in Harare.

CHAPTER 4

Research Methodology

4.1 Introduction

The purpose of Chapter 4 is to describe the research methodology for the study. The research methodology outlines procedures in collecting primary and secondary data. Also outlined are the research methods and techniques that were used to answer the Main Research Question. The sub-questions will be explained and motivated. Discussions in Chapter 4 will focus on the research design chosen for the study, sampling procedures and ethical considerations for the study. Section 4.2 provides an overview of the study as a background to the research methodology.

Amarunga *et al.* (2002:2) state that “a discipline or profession is established by developing a body of knowledge which is unique and that body of knowledge is produced through research”. They argue that research means different things to different people. However, from the many different definitions offered there appears to be agreement that research is a process of enquiry and investigation,

that it is systematic and methodological and that research increases knowledge (Amarunga, *et al*. 2002:2).

"The research methodology provides a general approach a researcher uses to conduct a research study" (Leedy & Ormrod: 2013:7). According to Leedy and Ormrod (2014:14), the research methodology "directs the whole research endeavour". They explain that "It guides decisions on the acquisition of data as well as methods and processes to analyse the data to make accurate findings in order to resolve the initial research problem. Research methodology involves two broad fundamental categories, namely quantitative research and qualitative research" (Leedy & Ormrod 2014:76; Pickard 2012:13).

The goal of the study was to investigate the Roles of Social Media in Disseminating HIV/AIDS Information to Young People aged 18-24 in Harare, Zimbabwe. The study aimed at answering the main research question and sub-questions as provided in Chapter One (See 1.4 and 1.4.1). The main research problem of this study was to investigate/establish which model and what roles of social media will improve the dissemination of HIV/AIDS information to young people aged 18-24 in Harare.

To answer the above research questions, a plan or design was needed. A discussion about the research methodology and design chosen for the study will also be presented in this chapter.

Discussions on types of research approaches, sampling, target population, ethical considerations, data collection and data analysis for the study will be presented in the sections below. The data generated for these activities will be discussed and analysed in Chapter 5.

4.2 Research Design

According to De Vaus (2006), the research design refers to the overall strategy chosen by the researcher to bring together the different components of the study in a coherent and logical way. By so doing, the researcher will ensure that the research problem is effectively addressed. The research design constitutes the blueprint for the collection, measurement, and analysis of data.

The function of a research design is therefore to ensure that the evidence obtained enables one to effectively address the research problem logically and ambiguously as possible (De Vaus 2006).

Research approaches refer to the overall strategies that are utilised when trying to address a research problem. There are two main research approaches identified in research. These are the quantitative and the qualitative research approaches. The chief difference between the quantitative and the qualitative research approaches lies in the manner in which data is collected. There is also a difference in the types of tools used in collecting data in the two approaches. There is no best approach in gathering data, and the preferred approach depends on the problem to be solved. Researchers are also not limited to either one or the other when gathering data.

For the purposes of this study, mixed method research which accommodates both quantitative and qualitative approaches were used. The two approaches are briefly discussed below to provide an understanding of what each one entails. With the use of these two approaches, comprehensive and detailed responses about social media and dissemination of HIV/AIDS information to the young people in Harare were obtained.

4.2.4 Qualitative Research

According to Creswell (2009:4) and Leedy & Ormrod (2013:95-96), a distinction can be made between qualitative research and quantitative research. Qualitative research is based on collecting information that seeks to describe a topic from targeted populations. In qualitative research, meaning is interpreted from these data in order to gain understanding to research questions. A qualitative survey is less structured.

(Creswell, 2009:4; Leedy & Ormrod, 2013:95-96). In contrast, there are more respondents in quantitative research. It is also easier to conduct a multiple choice survey in quantitative research as compared to interviews or focus group interviews in qualitative research. (Creswell, 2009: 4; Leedy & Ormrod, 2013: 95-96).

Quantitative Research is a structured way of collecting and analyzing data obtained from different sources. In quantitative research, statistics can be used to support and draw general conclusions from the research.

According to Amarunga, *et al. (*2002) qualitative research is conducted in natural settings through contact with a life situation. These situations are typically reflective of the everyday life of individuals, groups, societies, and organisations. Amarunga, e*t al. (*2002:4) further state that well collected qualitative data

> “focus on naturally occurring ordinary events in natural settings, so that there is a view on what "real life" is like. Another feature of qualitative data is their richness and holism, with strong potential for revealing complexity. Such data provide "rich descriptions" that are vivid, nested in a real life context, and have a ring of truth. Furthermore, the fact that such qualitative data are typically collected over a sustained period makes it powerful for studying any process” (Amarunga, *et al.* 2002:4).

> Qualitative data is a source of well-grounded, rich descriptions and explanations of processes in identifiable local contexts. With qualitative data one can preserve chronological flow, see precisely which events led to which consequence, and derive a fruitful explanation process (Amarunga, *et al*. 2002:6).

Qualitative Research is primarily exploratory research. There are various qualitative data collection methods such as unstructured or semi-structured focus group discussions, individual interviews, and participation or observations. The sample size is usually small, and selected respondents are required to fulfill a given quota (Williams 2007).

For the purposes of this study, in-depth focus group discussions were carried out with young people aged 18-24 in Harare. Interviews were also conducted using representatives in organisations that are dealing with HIV/AIDS in Harare.

4.2.5 Quantitative Research

Horna (1994:121) states that quantitative research designs are characterised by the assumption that human behaviour can be explained by what may be termed "social facts" which can be investigated by methodologies that utilise "the deductive logic of the natural sciences". Nau, (1995) asserts that quantitative investigations look for distinguishing characteristics, elemental properties and empirical boundaries and tend to measure "how much" or "how often".

Quantitative Research is used to quantify the problem by generating data that can be transformed into useable statistics. Quantitative research is used to quantify attitudes, opinions, behaviours, and other defined variables and results are generalized from a larger sample population. Measurable data is used to

formulate facts and uncover patterns in research. Quantitative research is much more structured than qualitative research. Quantitative data collection methods such as online surveys, paper surveys, mobile surveys, face to face interviews, telephone interviews, longitudinal studies, website interceptors, online polls, and systematic observations can be used in quantitative research (Williams 2007). For the purposes of this study, questionnaires were used to collect data from young people aged 18-24 in Harare.

4.3 Site of the Study

The location of the study was Harare. Harare was chosen because it is the capital city and business hub of Zimbabwe. As at February 2018, the population of Harare was 1,542,813 (See 1.1). Studies show that Zimbabwe has one of the highest rates of mobile phone ownership in sub-Saharan Africa. Just one provider, Econet Wireless Zimbabwe, claims to have more than 8 million subscribers (Econet reaches 8M 2013).

The researcher therefore considered that in Harare she was able to collect valuable data to contribute to HIV/AIDS information dissemination to young people aged 18-24.

4.4 Target Population

The target population is “the entire aggregation of respondents that meet the designated set of criteria” (Burns & Grove 1997:236). Target population is the group of people to whom research results apply. The target population was young people aged 18-24 in Harare. This group was chosen as the target population for the study because the research seeks to understand the roles of social media in disseminating HIV/AIDS information toyoung people aged 18-24 in Harare. Young people aged 18-24 in Harare are very likely to be using

social media platforms, especially Facebook, Instagram, Twitter and WhatsApp, which are discussed in detail in Chapter 2.

4.5 Sampling Procedure

Pickard, (2013) defines sampling as a method or technique that consists of the selection of participants for a study or research being conducted.

According to Mugo, (2002) sampling is the act, process, or technique of selecting a suitable sample, or a representative part of a population for the purpose of determining parameters or characteristics of the whole population. Trochim (2006) states that sampling is the process of selecting units (e.g., people, organisations) from a population of interest so that by studying the sample researchers may fairly generalise their results back to the population from which they were chosen.

The purpose of sampling is to draw conclusions about populations from samples. Inferential statistics must be used to enable researchers to determine a population`s characteristics by directly observing only a portion (or sample) of the population. A sample rather than a complete enumeration (a census) of the population are obtained for many reasons. Obviously, it is cheaper to observe a part rather than the whole; a sample may provide researchers with needed information quickly (Mugo 2002).

A population sample consists of all the individuals who have certain characteristics as defined by the researcher of a research study, while sampling refers to the process of a part, group or subset of a population, to use as a representative of the population in the study (Struwig & Stead 2008).

Mugo (2002) states that there are three primary kinds of samples: the convenience, the judgement sample and the random sample. They differ in the

manner in which the elementary units are chosen. A convenience sample results when the more convenient elementary units are chosen from a population for observation. A judgement sample is obtained according to the discretion of someone who is familiar with the relevant characteristics of the population. The random sample may be the most important type of sample. A random sample allows a known probability that each elementary unit will be chosen. For this reason, it is sometimes referred to as a probability sample. This is the type of sampling that is used in lotteries and raffles. For example, if one wanted to select 10 players randomly from a population of 100, their names can be written down on individual pages, folded, mixed, after which ten can be picked. In this case, every name has an equal chance of being picked. Random numbers can also be used.

Types of random sampling include a simple random sample: obtained by choosing elementary units in such a way that each unit in the population has an equal chance of being selected, a systematic random sample: obtained by selecting one unit on a random basis and choosing additional elementary units at evenly spaced intervals until the desired number of units is obtained, a cluster sample: obtained by selecting clusters from the population on the basis of simple random sampling, and a stratified sample: obtained by independently selecting a separate simple random sample from each population stratum. In this type of sampling, an equal number of the units are drawn from each stratum, not depending on the size of the strata.

The question of how large a sample should be is a difficult one. Sample size can be determined by various constraints. For example, the available funding may specify the sample size. When research costs are fixed, a useful rule of thumb is to spend about one half of the total amount for data collection and the other half for data analysis. This constraint influences the sample size as well as sample

design and data collection procedures (Mungo, 2012).

Random sampling was used for this study to select young people aged 18-24 in different low and high density areas in Harare. Students from the ten faculties of the University of Zimbabwe were part of the sample. Approval to conduct the research at the University of Zimbabwe was sought from the University Registrar. Random sampling procedure was used to select students from the ten faculties living in Harare and those from low and high density suburbs in Harare.

4.6 Data Collection

Surveys were conducted in order to collect data. Data collection instruments were used to gather data from respondents in order to assist with answering the research questions for this study. The data collection instruments for this study were questionnaires, in-depth focus group discussions and interviews with representatives from HIV/AIDS organisations in Harare (See Appendix A, Appendix B and Appendix C).

4.6.1 Questionnaires

The study collected quantitative data by the use of a questionnaire distributed to 18-24 age groups in Harare and at the University of Zimbabwe. The researcher also visited Internet cafes in the low-density suburbs frequented by some young people, and administered questionnaires. Self-administered questionnaires were used as a tool to enable the researcher to collect data by asking the target group questions, or by asking them to agree or disagree with statements representing different points of view (See Appendix A). Questionnaires are regarded as flexible data collection tools, especially the semi-structured questionnaire that involves using both open-ended and closed-ended questions. The open-ended

questions in this study allowed respondents to supply their own answers, thereby permitting greater depth of meaning. The closed-ended questions allowed respondents to select answers from a list of responses provided to them by the researcher.

4.6.2 Focus Group Discussions

To provide more insight and detail into certain aspects addressed in the questionnaire, the researcher followed up with focus group discussions (See Appendix B). Interviews and focus groups (also referred to as "group interviews") allow for information to be provided orally, either individually or in a group setting. The data can be recorded in a wide variety of ways including written notes, audio recording and video recording.

In focus groups, the interviewer facilitates the session. A select group of people are brought together, asked questions, encouraged to listen to each other's comments, and have their answers recorded. The same set of questions may be used for a number of different groups, each of which is constituted slightly differently, and for a range of purposes

Focus group interviews were chosen because focus groups allow for multiple narratives to be voiced in one "interview" about a research topic of interest. They act as tools for education because discussion among participants can illuminate the participants' and the researcher's views, helping to further refine research about a particular topic of interest (Pereira 2007).

According to Leedy & Ormrod (2014) an advantage of focus group interviews is that they may yield a great deal of useful information in view of their relatively high face validity and less structured environment - allowing the researcher to create a dynamic, open discussion, which may produce better participation. It is also a useful technique to collect data on feelings,

perceptions, attitudes and motivation of people (Connaway & Powel, 2010). Other advantages of this data gathering method are that it is cost-effective, offers quick results, is less controlled and therefore flexible towards topics, group sizes and questioning techniques (Case, 2012).

4.6.3 Interviews with representatives from HIV/AIDS Organisations

The researcher conducted interviews with representatives of organisations dealing with HIV/AIDS in Harare in order to provide more insight and detail into certain aspects of HIV/AIDS information dissemination in Harare. The interviews were meant to ascertain whether there was coordination in the manner in which HIV/AIDS information is disseminated in Harare. The interviews were carried out to establish the effectiveness of the model which is being used by the HIV/AIDS organisations in disseminating HIV/AIDS information in Harare (See Appendix C).

4.7 Reliability and Validity

Reliability and validity are important requirements and concerns for any research project (Connaway & Powel 2010). In order for a research project to meet its initial aim and to provide credible answers to the research questions and sub-questions, it is very important to ensure that the measuring instruments are consistent (reliability) and that they measure or examine what they claim to measure (validity). Reliability and validity therefore imply both the design and the measurement of research (Struwig & Stead, 2007:98).

This study tried to address reliability and validity issues. Pretesting of the

questionnaire was done among a few respondents to ensure that questions were understood and that they drew appropriate responses. Questions in the questionnaires and in the in-depth focus group discussions and interviews were explained as simply as possible, but in sufficient detail for overall general understanding. Anonymity of respondents was guaranteed all the time to enable respondents to be honest with their answers. All the questions in the questionnaire and the in-depth focus group discussions and interviews were reviewed and approved by the University of Pretoria, Research Ethics Committee in the Faculty of Engineering, Built Environment and Information Technology (EBIT).

4.7.1 Validity

Validity refers to the credibility or believability of the research. Are the findings genuine? According to Then (1996) validity is one of the concepts used to determine how good an answer is, provided by research. It means in essence that a theory, model, concept, or category describes reality with good fit. De Vaus (1991), states that a valid measure is one which measures what it is intended to measure.

Validity is defined as the extent to which a concept is accurately measured in a quantitative study (Heale & Twycross 2015).

According to Yin (1994:35) in research methodology literature, the measure of validity is often considered under either internal or external validity. The authors further state that internal validity refers to whether or not what are identified as the causes actually produce what has been interpreted as the "effect" or "response" and checks whether the right cause-and-effect relationships have been established.

Internal validity is concerned whether the instruments or procedures used in the

research measured what they were supposed to measure. For example:

> "As part of a stress experiment, people are shown photos of war atrocities. After the study, they are asked how the pictures made them feel, and they respond that the pictures were very upsetting. In this study, the photos have good internal validity as stress producers" (Reliability and validity, 2016).

According to Yin (1994:36) "external validity criterion refers to the extent to which any research findings can be generalised beyond the immediate research sample or setting in which the research took place; thus the extent to which the findings drawn from studying one group are applicable to other groups or settings".

When it comes to external validity, the results can be used and are valid even after the immediate study. In order to have external validity, for example, the claim that studying in different sessions ahead of the examinations or tests is better than cramming for examinations or tests should apply to more than one subject, for example, to mathematics as well as history. It should also apply to people beyond the sample in the study.

4.7.2 Reliability

According to Yin (1994:36) reliability is the extent to which a test or procedure produces similar results under constant conditions on all occasions. According to Amaratunga *et al.* (2002:29) another definition by Simon & Burstein (1985) states that, "reliability is essentially repeatability – a measurement procedure is highly reliable, if it comes up with the same result in the same circumstances time after time, even employed by different people. Yin (1994:36) further states that "the goal of reliability is to minimise the errors and biases in a study. The

object is to ensure that, if a later investigator followed exactly the same procedures, the same findings and conclusions would result".

According to Pickard (2012) reliability refers to the accuracy, precision, consistence and reproducibility of a measuring instrument. Reliability therefore implies that when other researchers repeat the same research under the same conditions, they should be able to make the same findings and thus refer to this as the quality of consistency involved in a research experiment over a period of time.

From the above discussion, it can be seen that the basic difference between reliability and internal validity is that reliability deals with the data collection process to ensure consistence of results, while internal validity focuses more on the way such results support conclusions (Amaratunga *et al.*2002:29).

Reliability relates to the precision and accuracy of the instrument. If used on a similar group of respondents in a similar context, the instrument should yield similar results (Cohen *et al.* 2000:117). Struwig & Stead (2007:131) suggest the following ways to ensure more reliable results: test-retest reliability, parallel forms reliability, split-half reliability and internal consistence reliability. Some of these methods were employed to ensure reliability of the research instruments.

Drost (2011:139) asserts that a test can be made more reliable by "writing items clearly, making tests instructions easily understood, and training the raters effectively by making the rules for scoring as explicit as possible". In this study, a clearly personalised introduction letter was distributed together with the questionnaire to young people, ensuring that the young people understood what was expected from them. All the relevant information such as purpose and

background of the study were explained to the participants before the focus group discussions/interviews. The questions were also asked as clearly as possible and explanations were made available in cases where the participants did not clearly understand some terms in the questionnaire. Accurate and careful phrasing of each question to avoid ambiguity and leading respondents to a particular answer ensured reliability of the tool. The respondents were informed of the purpose of the interview and of the need to respond truthfully. The same applied when interviews were conducted with representatives of HIV/AIDS organisations in Harare.

4.8 Data Analysis

This is the process of deducing meaning from data collected. According to De Vaus (1998: 203) the purpose of data analysis is to make the collected data more intelligible and interpretable in order to allow the researcher to reach conclusions in addressing the research problem(s). De Vaus (1998:203) refers to data analysis as the "categorising, ordering and summarising of data". After analysing the data, these are interpreted and organised according to the meaning of the data and implications for the research.

This study collected both qualitative and quantitative data by means of different data collecting methods such as the questionnaires and focus group discussion and interviews. Descriptive statistics were used because of the nature of the data.

The Statistical Package for Social Sciences (SPSS) Software was used for the analysis of the results. Other researchers carrying out similar studies on HIV and AIDs have also used SPSS and have found it to be user friendly and easy to use. In addition, it was also easily accessible to the researcher. Since SPSS is not a qualitative data analyser, data had to be coded before being captured into

SPSS Frequencies, percentages and descriptive statistics were used throughout the analysis.

4.9 Project Management

This section included research ethics, training of research assistants, project funding and project clearance. Every institution or organisation follows a certain set of norms or standards so as to achieve its goals. Norms are followed mostly so as to have a tolerable behaviour that suits the institution's aims and goals. The tolerable behaviour helps members of the institution to easily coordinate all members' actions or activities to attain set goals (Barry, 1988:1084-85)

Clearance to conduct research was sought from all concerned authorities. Permission to carry out research at the University of Zimbabwe was sought from the Registrar of the University of Zimbabwe. Before any data were collected for the study, permission to carry out the research was obtained from the University of Pretoria, Research Ethics Committee in the Faculty of Engineering, Built Environment and Information Technology (UP, EBIT). The instruments were submitted to the UP, EBIT Faculty Research Ethics Committee for approval (See Appendix D, Approval letter from UP, EBIT).

Two Research Assistants were recruited to assist with conducting the surveys. The researcher went through all the questions explaining what was expected from each question to the Research Assistants. Research ethics and the importance of confidentiality and voluntary participation were explained to them.

4.10 Ethical Considerations

Akaranga & Makau (1996:1) indicates that ethics refers to norms for conduct

that distinguish between acceptable and unacceptable behaviour or a method, procedure or perspective for deciding how to act and analyse complex problems and issues.

De Vos et al (2005: 57) defined ethics for research as "a set of moral principles suggested by either an individual or a group of people which are then widely accepted. These moral principles become a set of rules which set expectations for behaviour about best conduct towards participants, employers, sponsors, researchers, lecturers and students".

According to Resnik (2015:1) "most people learn ethical norms at home, at school, in church, or in other social settings". Furthermore, he says that "although people obtain their institutional senses during childhood, ethical development takes place throughout life and people go through different stages of growth as they mature". Life experience and background make interpretation of the ethical norms differ from person to person.

According to Orb, Eisenhauer and Wynaden (2000:95) ethics refers to a concern for balancing a researcher's right to study a behaviour with the right of participants to be protected from abuse.

The following procedures were taken into consideration:

- Participants were informed of the nature and purpose of the study;
- It was explained that participation was voluntary and those who did not want to participate were free to withdraw from participating;
- Informed consent to participate in the research was sought from participants;
- The participants were also assured of the confidentiality and anonymity of the information they provided and were informed that they were free

not to answer any question;

- The collected data was analysed in such a way that it is not traceable to any of the participants.

4.10.1 Voluntary Informed Consent

Voluntary informed consent means that the human subjects of research may agree or refuse to participate in the survey being conducted (Agulanna 2010). The researcher must give complete information concerning the nature and purpose of research to the participants. Even if the company or institution allows the researcher to carry on with the survey, participants must still be given the option to choose (Agulanna 2010). Participants have the right to be informed about the aim of the investigation and why their participation is necessary. They must also know how the gathered information will be used and how the results will be accessed (Agulanna 2010).

A consent form was made available to participants in order to achieve voluntary informed participation. Participants were also informed about the objectives of the study as well as what they were expected to do. Above all, participants were told whether there were benefits or risks involved in the study.

4.10.2 Confidentiality, Privacy and Anonymity

The researcher must recognise participants' entitlement to privacy and must accord them their rights (Resnik 1986). Participants' data must be treated with confidentiality and anonymity (Resnik 1986). Confidentiality and anonymity were ensured in accordance with the requirements of the Code of Research Ethics of the University of Pretoria. A study permission letter was written to the University of Zimbabwe Registrar. An introduction to the study at the

beginning was part of the questionnaire to all participants. The introduction introduced the researcher to the respondents and clarified the purpose of the study and also reassured the participants that their responses remained anonymous and that they may withdraw their participation anytime they wished to do so (See Appendix A).

4.11 Conclusion

Chapter 4 presented the research methodology that was used to carry out the study. The techniques and methods allowed for gathering of the data are critical for answering both the main research question and the research sub-questions. An in-depth presentation, analysis, and interpretation of the data will be presented in Chapter 5.

CHAPTER 5

Data Analysis and Interpretation

5.1 Introduction

In this chapter the data collected by using the different research methods and techniques described in Chapter 4, will be presented and interpreted.

Hitchcock and Hughes (1995:295) explain these processes as "ways in which the researcher moves from a description of what is the case to an explanation of why what is the case is the case." Best and Khan (2006) state that the analysis and interpretation of data represent the application of deductive and inductive logic to the research. Morrison *et al.* (2012:22,24)) states that the interpretive approach, which involves deduction from the data obtained, relies more on what it feels to be a participant in the action under study, which is part of the

qualitative research.

Data analysis allows the researcher to describe and summarise the data and, through interpretation, meaning will be given to the data. Insights derived from the qualitative and quantitative assessments in this chapter will provide an informed basis for the proposals and recommendations presented in chapter six.

Pretesting was conducted with a focus group to identify ambiguous questions or wording, unclear instructions, or other problems with the instrument prior to widespread dissemination. Pretesting is critical because it provides valuable information about issues related to reliability and validity through identification of potential problems prior to data collection. Some questions which were not clear to the participants of the focus group were rephrased. The researcher also re-arranged the questionnaire to improve the flow of questions.

Draugalis, Coons & Plaza (2008) explain that, while pretesting is often conducted with a focus group of peers or others similar to the subjects, cognitive interviewing is becoming increasingly important in the development and testing of questionnaires to explore the way in which members of the target population understand, mentally process and respond to the items on a questionnaire. Cognitive testing, for example, consists of the use of both *verbal probing* by the interviewer (eg., "What does the response 'some of the time' mean to you?") and *think aloud*, in which the interviewer asks the respondent to verbalise whatever comes to mind as he or she answers the question. This technique helps determine whether respondents are interpreting the questions and the response sets as intended by the questionnaire developers. If done with a sufficient number of subjects, the cognitive interviewing process also provides the opportunity to fulfill some of the roles of a pilot test in which length, flow, ease of administration, ease of response and acceptability to respondents can be

assessed, (Collins 2003).

The questionnaire was pilot-tested with students at the University of Zimbabwe. Research Assistants persuaded participants to further explain their answers in cases where responses were not clear. This resulted in changing the wording and also how some questions were structured. In some cases the arrangement of questions were changed to allow smooth flow of the questions.

Interviews and focus groups (also referred to as "group interviews") were carried out with participants in groups of six. The group interviews allowed for information to be provided orally in a group setting. Some of the discussions were recorded in two ways, which were written notes and audio recording. The Focus Group interviews allowed for multiple narratives to be voiced in one "interview" on the research topic.

The survey was carried out from March 2017 to June 2017 in Harare. A combination of quantitative and qualitative methods were used. Surveys were conducted in order to collect data. Permission was granted by the Registrar of the University of Zimbabwe to conduct research among the 18-24 age group of university students. Self-administered questionnaires were randomly distributed to participants aged 18-24 in the 46 high and low density areas in Harare as well as to the young people in the 18-24 age group at the University of Zimbabwe. The Research Assistants would wait for participants to complete the questionnaire and immediately collect them. This strategy was to ensure that a big number of the questionnaires were returned. Participants were asked various questions and in some instances they were asked to agree or disagree with statements representing different points of view. Questionnaires included both open-ended and closed-ended questions. The open-ended questions in this study allowed respondents to supply their own answers, thereby permitting greater depth of meaning. The closed-ended questions allowed respondents to select

answers from a list of responses provided for them by the researcher. Focus group interviews, in the form of focus group discussions (FGD) were conducted with the researchers in order to provide more insight and detail into certain aspects addressed in the questionnaire. Each group of participants would have a minimum of six and a maximum of 10 participants.

Three hundred and twenty two (322) questionnaires were returned out of the four hundred (400) which were distributed, giving a response rate of 80.5 percent. According to Finchman (2008), response rates approximating 60 percent for most research should be the goal of researchers. For survey research intended to represent all schools and colleges of pharmacy, a response rate of ≥ 80 percent is expected. According to Baruch & Holtom (2008), the average level of response rate is 52.7 percent. Mitchell argues, with documentation from others, that the survey response rate should be calculated as the number of returned questionnaires, divided by the total sample to whom the questionnaires were initially sent.

The response rate of 80.5 percent is therefore considered very good in survey research. Collection of the data for the study used both quantitative and qualitative tools, namely a questionnaire and focus group discussions (interview schedule Appendix B and Appendix A). The quantitative data was gathered through questionnaires distributed to age groups 18-24. The discussion in this chapter is based on the presentation of the results of the quantitative analysis of the survey and content of the qualitative data from the focus group discussions of the young people aged 18-24 in Harare.

This chapter will therefore present, analyse, and interpret the data retrieved via both research approaches with a view to answering the main research question and sub-research questions (See Chapter 1).

5.2 Quantitative Data Analysis

A questionnaire comprising nineteen questions was compiled. The questionnaire was divided into five main categories that touched on social and demographic aspects, knowledge assessment, sources for accessing HIV/AIDS information, types of information accessed via social media, and HIV/AIDS related media use. The categories will address questions as presented in the questionnaire (see Appendix A). The data from the respondents will be discussed in the sections below. A total number of 322 respondents answered all the questions (n=322).

5.2.1 Social and Demographic Questions

Question 1. How old are you?

Graphical representation of the ages of respondents

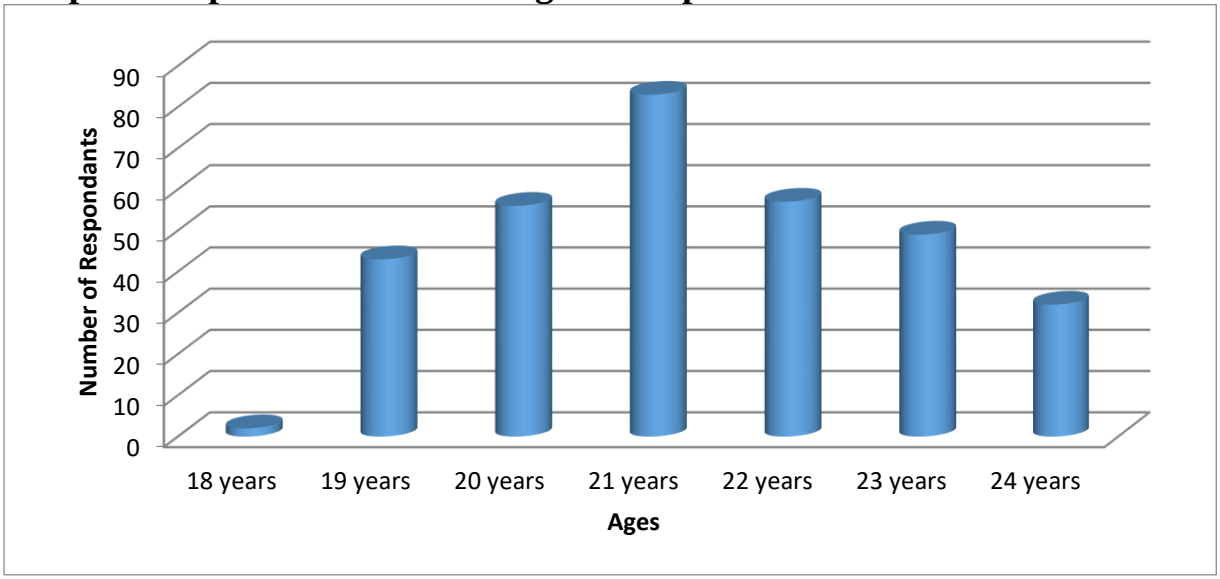

Figure 1. Ages of respondents

Participants were asked to show their age as at last birthday. Figure 1 shows that the sample consisted of participants whose ages range from 18-24 years. The largest number of respondents 83 (25.8 percent) came from the 21 years

age group followed by 22 years (17.7 percent), 20 years (17.4 percent), 23 years (15.2 percent). The lowest age was 18 years (0.6 percent).

The age bracket is limited to young people between 18 and 24 years old. 18-24 years is the Legal Age of Majority in Zimbabwe. This data may be productively contrasted with that found in a study in 2012 by Kembo. Kembo (2012) conducted a study on factors that predispose young persons aged 15–24 years in Zimbabwe to infection from HIV. Kembo's study established that young persons aged 15–24 years with two or more sex partners in the past 12 months preceding the 2005–06 ZDHS survey had a significantly elevated risk of HIV infection of 1.568 times relative to their counterparts with no sex partners in the same period of time. The distribution of persons aged 15–24 years by age group further indicates that HIV prevalence was highest for the 21–24-year age group (12.7 percent) and lowest for the 15–17-year age group (3.1 percent) ($p = 0.000$). Great challenges still exist for the control of HIV and AIDS among young persons in Zimbabwe.

Kembo (2012) asserts that it is important to design bold and effective interventions that address the needs of all young people aged 15-24 years in Zimbabwe and in the other sub-Saharan countries such as Botswana, Malawi and South Africa which are still characterised by a high burden of HIV-induced morbidity and mortality.

Kembo's study was a partial motivation for this study because young people in Harare aged 18-24 fall in the 15-24 bracket. This study was necessary because things have changed since 2012. However, results from this study seem to confirm aspects of Kembo's study (see Chapter 2). The largest number of respondents, 83 (25.8 percent) came from the middle-ranking age, namely the 21 years age group followed by 22 years (17.7 percent). In Kembo's study, HIV prevalence was highest for the 21-24 year age group.

The response rate in this study confirms that young people are prepared to speak about HIV/AIDS. This is encouraging because HIV infection among young people aged 18-24 year facilitates the detection of new infections in the general population.

Question 2. Gender of respondents

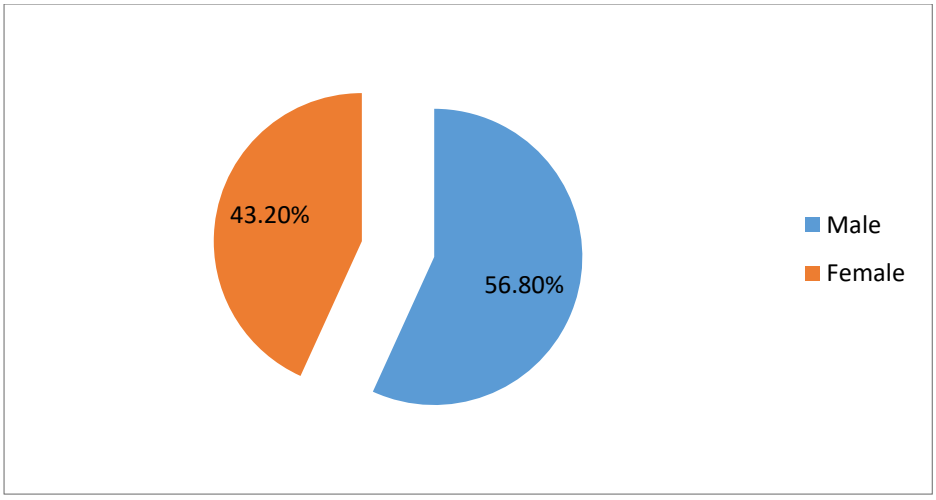

Figure 2. Response by Gender

Figure 2 illustrates a male-female percentage distribution in the participants. The figure shows that the males were the majority 183 (56.8 percent) and the remaining 139 (43.2 percent) represents the female participants.

Questionnaires were distributed to both male and female young people because according to the literature review, HIV prevalence among both males and females in this age group is unacceptably high (UNAIDS 2013 estimates). According to UNAIDS (2013), adolescent girls in Mozambique had an HIV prevalence of 7 percent, which doubled to 15 percent by the time they turned 25 years old. In Lesotho, an HIV prevalence of 4 percent was recorded among adolescent girls, which increased to 24 percent among young women aged 20-24 years. This pattern is repeated in almost every country in eastern and southern Africa (UNAIDS 2013).

In an article in 2016 entitled "Zimbabwe: Over 100,000 Teenagers and Young Adults HIV Positive, Poverty Blamed", a senior official of the National AIDS Council (NAC) stated that at least 80,000 females between ages 15 and 24 are currently living with HIV while 36,000 males of the same age are also living with the virus. New infections in young people aged between 15 and 24 were increasing, especially among young girls.

Given the numbers mentioned above of females between 15 and 24 currently living with HIV, the researcher would have expected more females to have participated, but noted that this number for females is nonetheless significant and meaningful for this study. This shows that both groups were willing to participate in this survey and therefore concerned about the problem as it affects the countries in the region and further afield on the continent. It therefore means that comprehensive HIV prevention programmes to combat HIV/AIDS in the 18-24 age group in Harare must target both male and female young people.

Question 3. Place of Residence

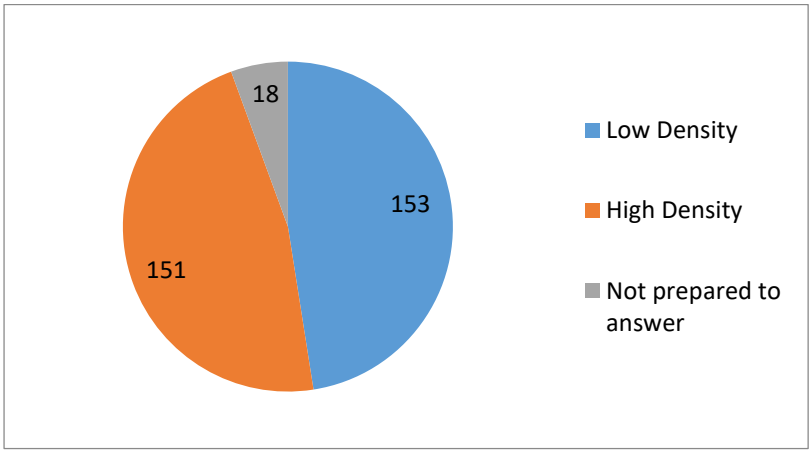

Figure 3. Place of Residence

Figure 3 shows that **t**he largest number of respondents, were from the Low Density area followed by 151 (46.9 percent) living in the High Density and 18 participants (5.6 percent), who were not prepared to answer.

The reason for asking this question was to determine whether the young people living in the High Density area had mobile phones just like those in the Low Density areas. The question was asked also to determine whether young people living in the High Density areas had less access to the Internet because of the cost, and hence would not have as much access to social media networks as compared to the young people living in the Low Density area where cost of the Internet may not be a challenge because low density areas are associated with more affluent groups.

The data show that the numbers of young people from both low and high density areas were almost equal, 153 (47.5 percent), and 151 (46.9 percent) respectively. It therefore means that comprehensive HIV prevention programmes to combat HIV/AIDS in the 18-24 age group in Harare should deal equally with young people in Low and High Density suburbs. There is also a need to formulate models for disseminating HIV/AIDS information via social media platforms that do not distinguish between young people in this urban city based on where they reside. It appears that most young people from both low and high density areas in Harare have a mobile phone. Access to information about HIV/AIDS using social media platforms is therefore a viable proposition for young people in Harare.

Question 4. Highest level of education

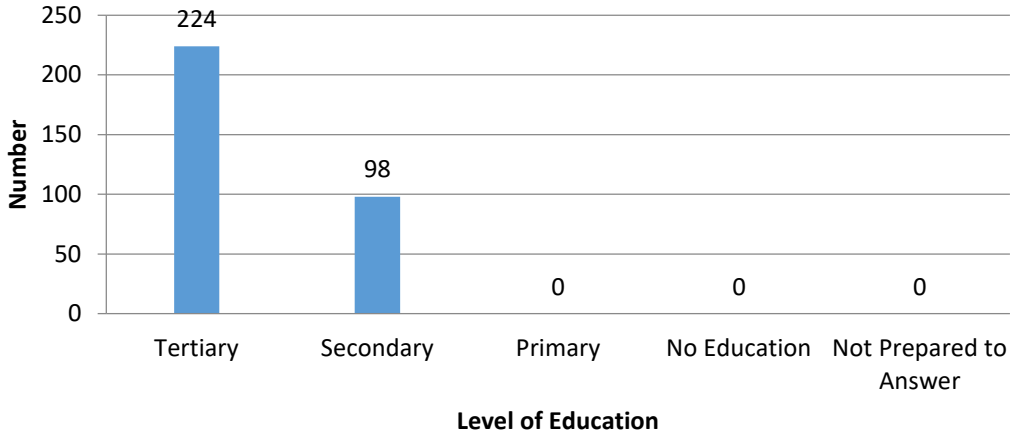

Figure 4. Levels of education

Respondents were asked to indicate their highest level of education. *Figure 4* shows that the majority in the 18-24 age group who responded had attained secondary education, and 224 (69.6 percent) had attained tertiary education. The survey wanted to see whether educated young people were the majority users of social media. This would assist in giving direction on the type of HIV/AIDS information programme for young people in Harare. Targeting young people aged 18-24 years with key educational messages and providing knowledge on how to prevent infection are therefore crucial issues in the long-term fight against HIV/AIDS among young people in Harare.

5.2.2 Knowledge Assessment

This section covers questions relating to HIV/AIDS information dissemination, attitudes, knowledge, behaviour and perceptions.

Question 5. To what extent are you aware of the HIV/AIDS disease?

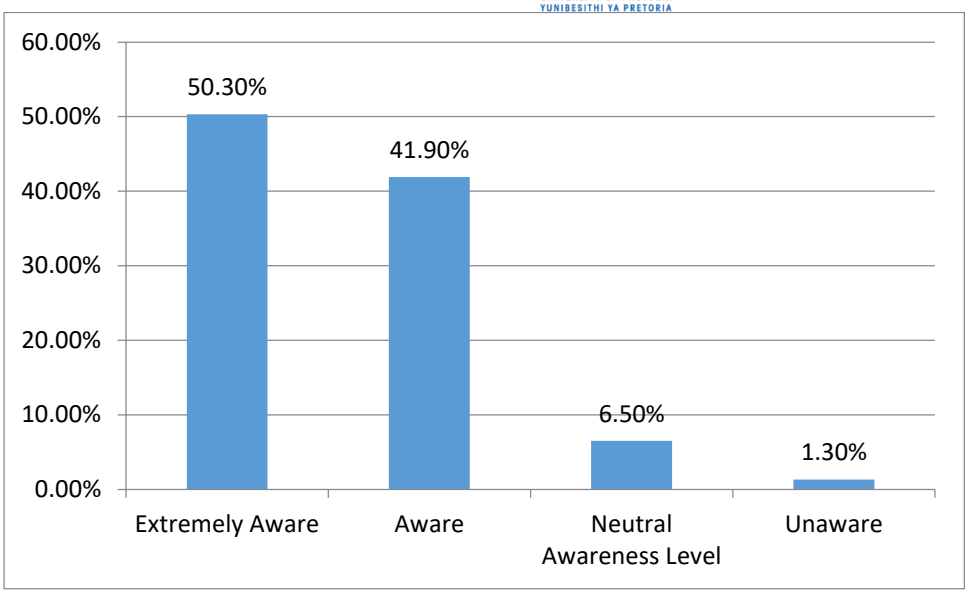

Figure 5. Levels of HIV/AIDS awareness

Participants were assessed on knowledge about HIV/AIDS. Participants were required to indicate how much they knew about HIV/AIDS. This question was asked to determine how much knowledge the young people had about HIV/AIDS. Knowledge, opinions and attitudes of young people towards HIV/AIDS are very important for HIV/AIDS prevention, care and support.

Figure 5 of the survey results shows that most of the young people (92.2 percent) have knowledge about HIV/AIDS disease: 162 (50.3 percent) were extremely aware of HIV/AIDS, 135 (41.9 percent) were aware of HIV/AIDS, 21 (6.5 percent) neutral, 4 (1.3 percent) were unaware.

It is encouraging to note that the majority of young people in this survey aged 18-24 is aware of HIV/AIDS. What is important and remains unclear is how they acquired this level of awareness, that is, what dissemination methods were used and how reliable the information is. What is critical is now to design awareness programmes and effective dissemination methods of ensuring that accurate and authoritative information on HIV/AIDS reaches this group, including the few that are not aware, in the quickest possible manner. The results of the study can be shared with organisations dealing with HIV/AIDS

information and request them to design an awareness programme to enable the young people in Harare to receive reliable HIV/AIDS information.

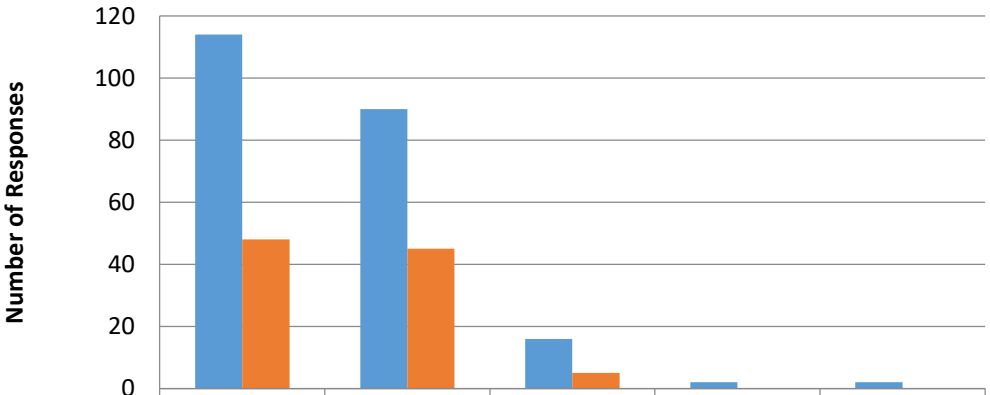

Figure 6. Tertiary Education HIV/AIDS awareness

Figure 6 shows that 114 respondents who were extremely aware of HIV/AIDS had attained tertiary education. Because there is a significant number that only has secondary education, care should be taken in disseminating information on such a level that both groups can understand the message.

Question 6. To what extent do you agree or disagree with the following phrases regarding how people may contract HIV/AIDS?

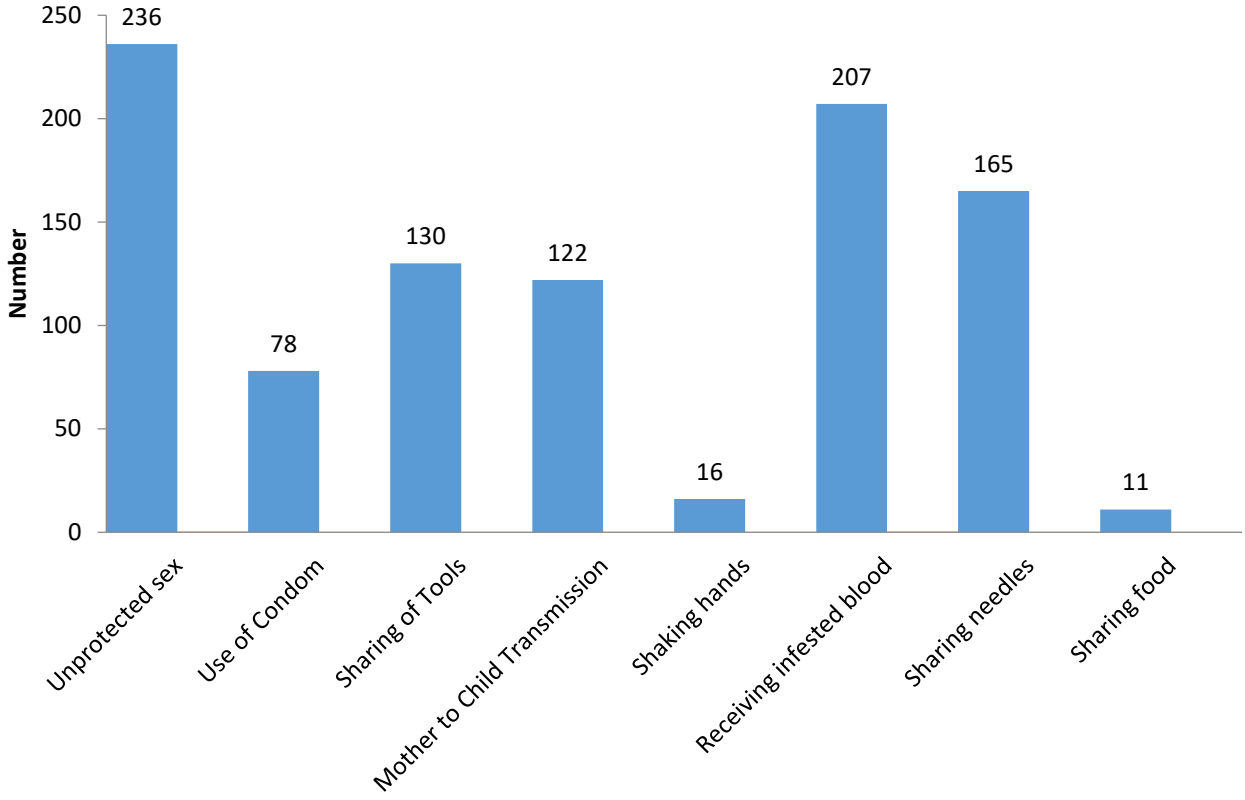

Figure 7. Knowledge on HIV/AIDs contraction

Figure 7 shows that the majority of the young people 236 (59 percent) agreed that having unprotected sex resulted in contracting HIV/AIDS. The following numbers of young people agree that the following resulted in contracting HIV/AIDS: 207 (51.75 percent) receiving infected blood, 165 (41.25 percent) sharing needles, 130 (32.5 percent) sharing tools in the work place, 78 (19.5 percent) use of condoms, 16 (4 percent) shaking hands and 11 (2.75 percent) sharing food.

Participants were also asked to agree or disagree with a number of phrases regarding how people can contract HIV/AIDS. This question sought to understand whether young people had accurate and reliable knowledge on how people can contract HIV/AIDS. The research results show that majority of the young people have accurate and reliable knowledge of how HIV/AIDS is contracted: 236 (59 percent) having unprotected sex, and 207 (51.75 percent)

receiving infected blood.

It is interesting to note that there are still some young people who believe that HIV/AIDS can be contracted through the use of a condom 78 (19.5 percent), shaking hands 16 (4 percent), sharing food 11 (2.75 percent), 165 (41.25 percent) sharing needles and 130 (32.5 percent) sharing tools. Maybe social media can be used to dispel these myths and improve the dissemination of accurate and reliable knowledge so that the young people aged 18-24 in Harare have accurate and reliable knowledge about what causes HIV/AIDS. This will assist in changing the attitudes of young people in Harare who are not HIV positive towards people who are HIV positive.

Question 7. To what extent do you agree or disagree with the following statements?

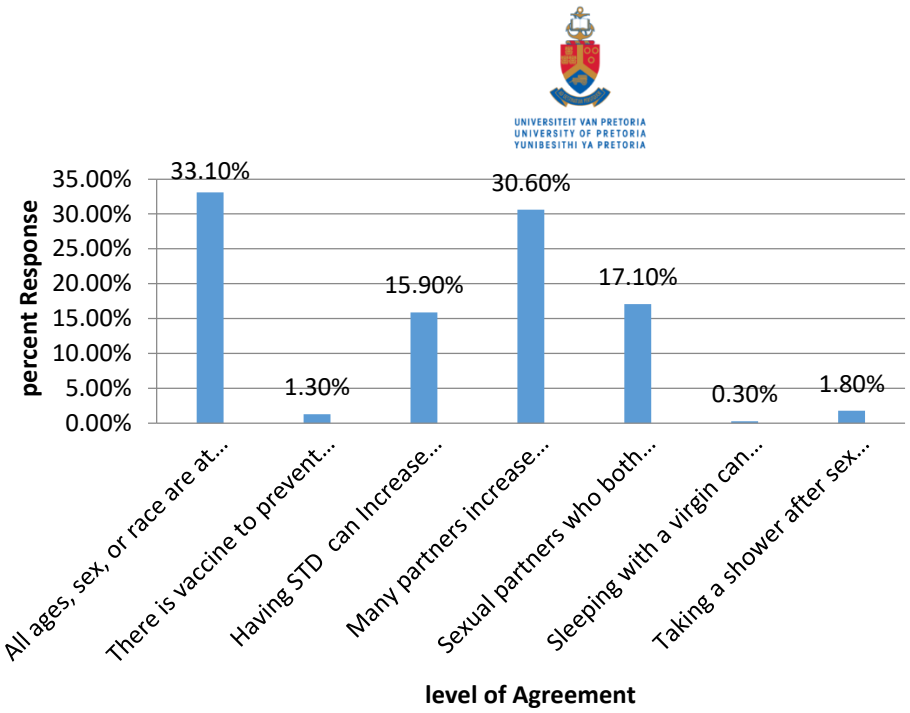

Figure 8. Levels of agreement

Figure 8 shows to what extent the young people agreed or disagreed with various statements about HIV/AIDS. 225 (33.1 percent), which was the largest number of respondents, agreed that all ages, sex or race are at risk of contracting HIV/AIDS; 208 respondents (30.6 percent) agreed that having sex with many partners increases the chance of someone contracting HIV/AIDS; 116 (17.1 percent) agreed that sexual partners who both have HIV/AIDS need to use condoms during sexual intercourse; and 108 (15.9 percent) respondents agreed that having a sexually transmitted disease (STD) can increase the risk of contracting HIV/AIDS.

The question was asked to determine whether the young people aged 18-24 had accurate and reliable knowledge of how HIV/AIDS is contracted. The results show that the majority of young people in Harare are knowledgeable of how HIV/AIDS is contracted. The lowest number of respondents, 2 (0.3 percent), agreed that sleeping with a virgin can cure HIV/AIDS followed by 9 respondents (1.3 percent) who agreed that there is a vaccine to prevent HIV/AIDS, and 12 respondents (1.8 percent) agreed that taking a shower after sex minimises the risk of contracting HIV/AIDS. This minority must not be

ignored because it may leave young women in this age group vulnerable to people infected with HIV/AIDS. Ignoring this minority may result in infected people raping or forcing themselves on virgins in the belief that they will be cured of HIV/AIDS. Awareness programmes for young women aged 18-24 in this age group is therefore critical. Awareness programmes must not be limited to young women only, and must include young men to dispel the myth that sleeping with a virgin can cure HIV/AIDS. This will prevent the spread of HIV/AIDS in Zimbabwe.

The survey results show that the majority of young people in Harare are knowledgeable of how HIV/AIDS is contracted. It corroborates what Odu (2009), discovered, and what the Centre for Diseases found (see Chapter 2). The unique element of this study looks at the designing of an HIV/AIDS awareness and dissemination programme for young people aged 18-24 which will assist in the modification of sexual behaviour programmes as proposed in previous studies. This is hoped that it will assist in preventing transmission of HIV/AIDS by young people.

Question 8. Did you access HIV/AIDS information in the past 12 months?

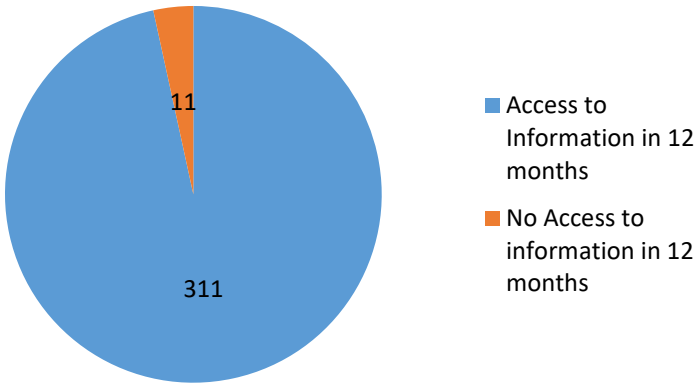

Figure 9. Access to HIV/AIDS information

Figure 9 shows that 311 (96.6 percent) participants, which were the majority, had access to HIV/AIDS information in the past twelve months, and 11 (3.4

percent) had not had access to HIV/AIDS information in the past 12 months. The question was asked to determine the frequency of access to HIV/AIDS information by young people aged 18-24 in Harare. The figure 311 is very significant since it shows that young people who are not HIV positive may be as interested in accessing this information as those who are HIV positive. The data will assist in determining how frequently HIV/AIDS information should be disseminated to this age group.

The data show that young people understand that HIV/AIDS is a deadly disease and it is therefore critical for the young people to constantly access information about HIV/AIDS so that they are aware of developments taking place with this disease. The data also show that young people are interested in accessing information about HIV/AIDS because the disease impacts on them, and they are at risk. It is therefore apparent that the young people aged 18-24 in Harare will be eager to participate in HIV/AIDS programmes so that they are kept aware of what is taking place in the areas of HIV/AIDS. The results will assist in determining how often and through which media information about HIV/AIDS should be disseminated to this age group of young people. Social media can play a proactive role by not waiting for someone to attempt to access information but to regularly receive the kinds of information about developments sought by patients.

5.2.3 Sources for Receiving HIV/AIDS Information

This section focused on the main sources for receiving HIV/AIDS information by young people aged 18-24 in Harare.

Question 9. Select the main source through which you access information about HIV/AIDS

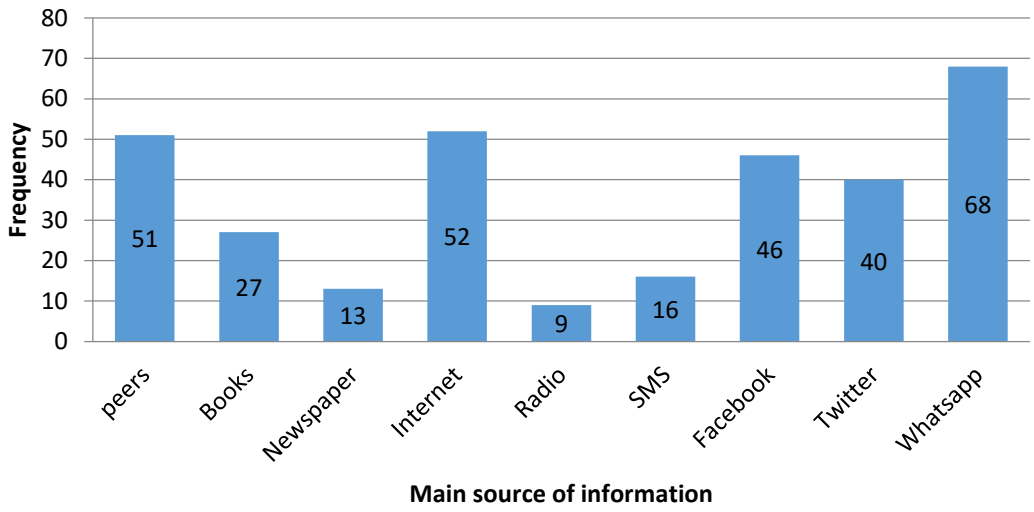

Figure 10. Sources of HIV/AIDS information

Figure 10 shows that 68 (21.1 percent), which was the largest number of respondents, accessed HIV/AIDS information via the WhatsApp platform, followed by 52 (16.1 percent) via the Internet, 51 (15.8 percent) through peers, 46 (14.3 percent) via Facebook, 40 (12.4 percent) through Twitter, and 27 (8.4 percent) through books. Nine (2.8 percent) which was the lowest number of respondents accessed HIV/AIDS information through the radio, 13 (4.0 percent) through the newspaper, and 16 (5.0 percent) through short messaging system (SMS). The data show that most young people in Harare use information technology and social media networks to access HIV/AIDS information (Internet, WhatsApp, Facebook, Twitter). The data also show that social media networks are the main sources for accessing HIV/AIDS information.

Young people still value sharing information with their peers which is shown by 51 respondents (15.8 percent) having their peers as their main source. This is an important feature of the data. Fisher *et al.*, (1996) argue that preventive knowledge is a critical component of HIV protective behaviour. However, few

studies have examined the sources of HIV information among young adults and even fewer have explored their attitudes toward such information sources. Few studies have made recommendations for HIV/AIDS information delivery efficacy among young people. It is therefore important to design programmes that enable those young people aged 18-24, who access information on HIV/AIDS via social media, to orally pass it on to their peers who are not so fortunate to receive this vital information online. This can be face to face or via telephone.

Only 16 (5.0 percent) accessed HIV/AIDS information through short messaging system (SMS). The data show that young people have quickly moved to a preference for social networks because they are more cost-effective. This cheaper method for disseminating HIV/AIDS information appeals to a wide audience of young people in Harare.

The lowest number of young people 9 (2.8 percent) accessed HIV/AIDS information through the radio. This is however significant in that organisations should consider increasing the use of radios to disseminate HIV/AIDS information to the young people in Harare, who may not have access to the Internet or mobile phones capable of accessing online social networks. This could be achieved through question-and-answer sessions whereby questions are broadcasted and responses from young people with access to the internet are sent via social media platforms to radio presenters. The radio personalities then give feedback through the radio, thereby reaching those young people with no access to social media. It also calls for organisations dealing with HIV/AIDS to utilise social media to collaborate with radio to improve dissemination among people aged 18-24 years.

5.2.4 Types of Information Received Via Social Media

This section covers questions on information accessed through social media. Questions 10-13 sought to find out what type of information young people in Harare accessed via social media platforms, namely Facebook, Twitter and WhatsApp.

Question 10. What types of information do you access via social media?

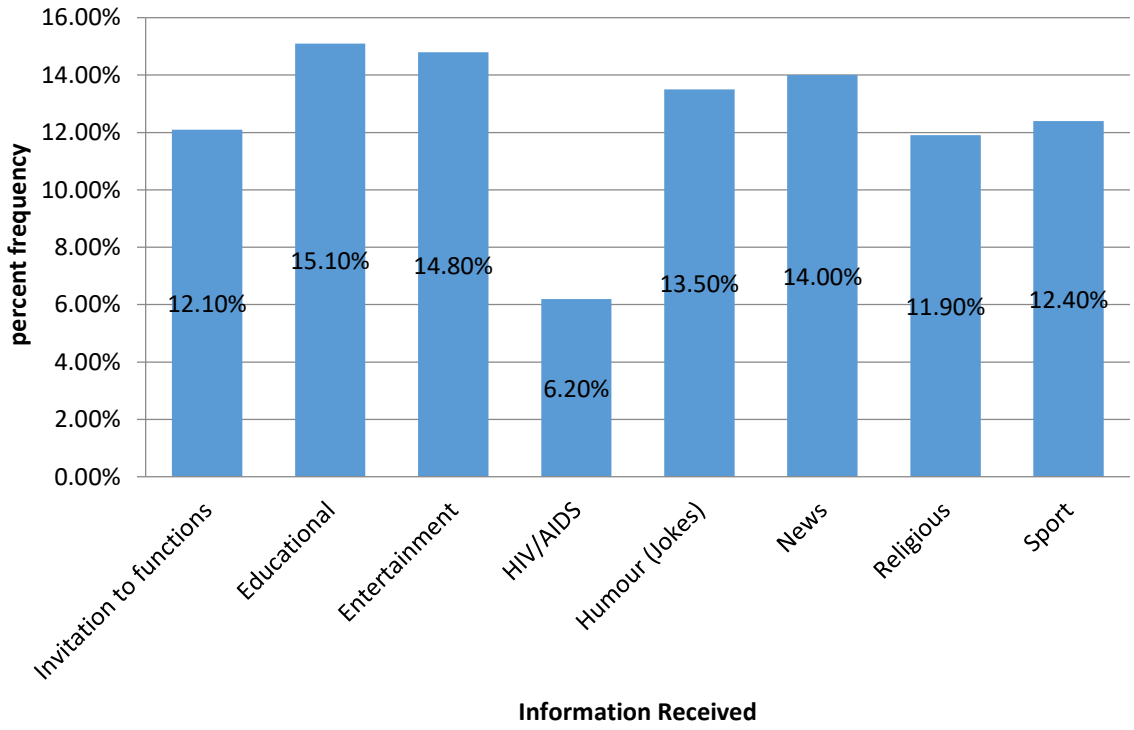

Figure 11. Types of information via Social Media

Figure 11 shows that of the types of information accessed, education ranked the highest (15.10 percent), followed by entertainment (14.80 percent), news (14.00 percent), humor/jokes (13.50 percent), sport (12.40 percent), invitation to functions (12.10 percent), and religious information (11.90 percent). The lowest number of respondents, (6.20 percent), accessed information on HIV/AIDS through social media. The data show that young people consider social media to be useful platforms for accessing other types of information. This is shown by the high percentages in all the other types of information accessed by young

people (15.10 percent, 14.80 percent, 14.00 percent, 13.50percent, 12.40 percent, 12.10 and 11.90 percent), except for HIV/AIDS (6.20 percent). The low percentages are significant and this should prompt organisations to seriously consider increasing the use of social media platforms to disseminate HIV/AIDS information to young people. This will subsequently raise the number of young people in Harare accessing HIV/AIDS information though social media. In other words, increased dissemination by organisations would lead to higher levels of access by young people.

This question was asked to determine whether the young people aged 18-24 in Harare use social media to access critical and useful information. This data will assist organisations dealing with HIV/AIDS information to design or adapt programmes that ensure that required HIV/AIDS information is disseminated to this target group. Accessing education information via social media confirms the educational roles of social media (see Section 1.3).

The data show that HIV/AIDS information was the least accessed type of information through social media by young people, and yet young people are most at risk of contracting HIV/AIDS (Kembo 2012; Abh, Aderibigbe & Olubunmi 2014). Maybe organisations handling HIV/AIDS information are not aware that young people do not consider HIV/AIDS information to be important. The data is supposed to inform these organisations to design appropriate awareness programmes to reduce the spread of HIV and AIDS among the people aged 18-24 years in Harare. It may also be a result of not having appropriate models based on research for disseminating HIV/AIDS information sought by this target group. Maybe young people in Harare perceive the purpose of social media as platforms for socialising and not to access HIV/AIDS information. This calls for organisations handling HIV/AIDS information to involve young people in the proper designing of HIV/AIDS programmes that bring out the importance and value of social media platforms

in communicating and ensuring that HIV/AIDS information reaches this target group. Organisations must create platforms on social media that allow for dissemination of useful information on HIV/IDS among the young people in Harare.

Question 11. In the past month, how often did you access HIV/AIDS-related articles/stories via social media?

Facebook

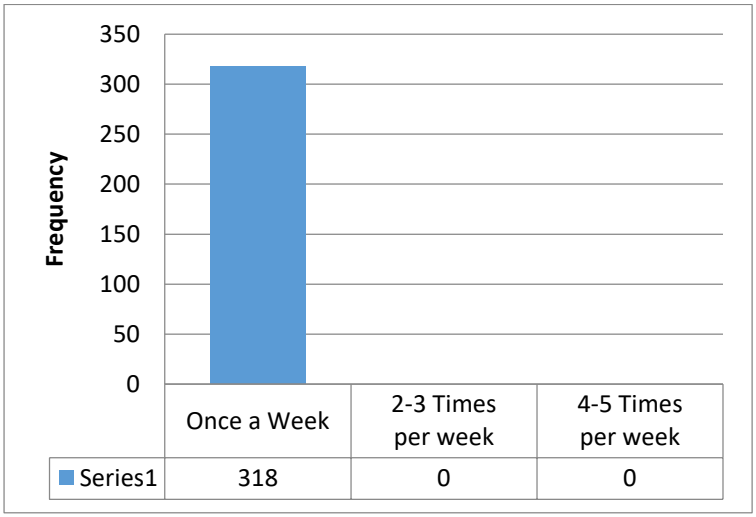

Figure 12. Frequency of accessing HIV/AIDS related articles

Participants were requested to indicate which social media platforms, namely Facebook, Twitter and Whatsapp they had accessed. Respondents were requested to tick how often they accessed each type of social media ranging from once a week to 4-5 times a week to receive HIV/AIDS information.

Figure 12 shows that the majority of young people 318 (98.8 percent) used Facebook once per week to access information on HIV/AIDS.

Twitter

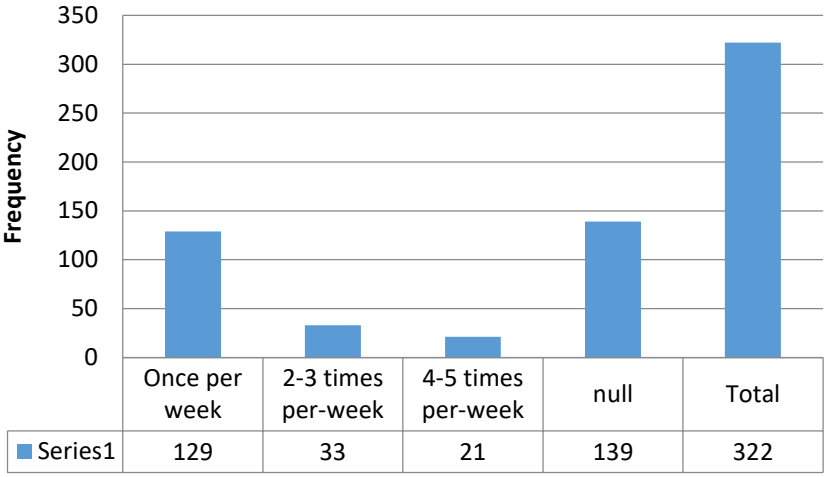

Figure 13. Twitter respondents

Figure 13 shows that 129 (40.1 percent) respondents used Twitter once a week, 33 (10.2 percent) two-three times a week and 21 (6.5 percent) four-five times per week to access HIV/AIDS related articles/stories. 139 (43.2 percent) did not use Twitter to access HIV/AIDS related articles/stories.

WhatsApp

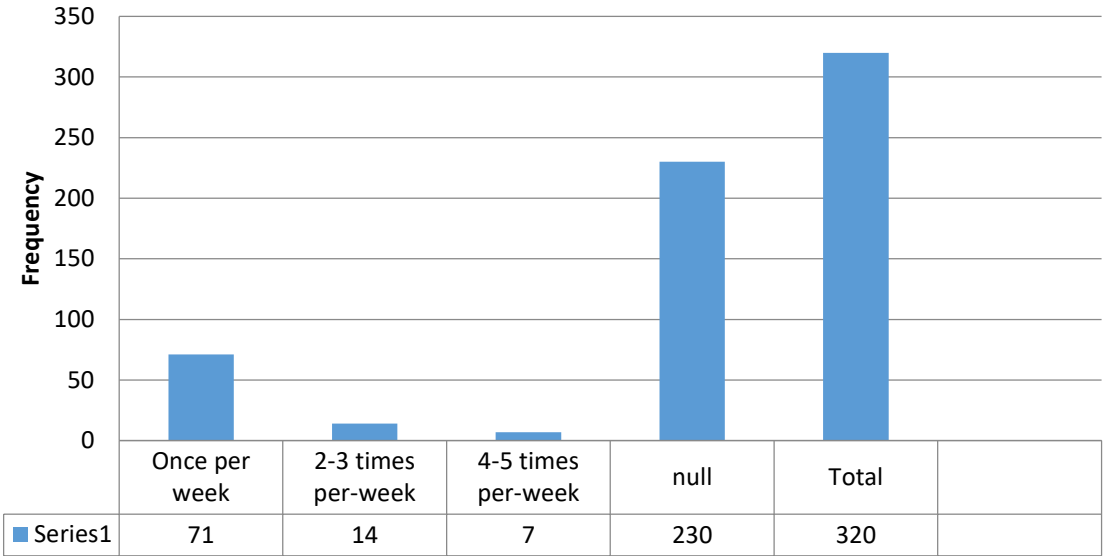

Figure 14. WhatsApp respondents

Figure 14 shows that the majority of respondents, 230 (70.8 percent) did not use WhatsApp to access HIV/AIDs related articles/stories. The majority of the respondents may not be on HIV/AIDS related WhatsApp groups, 71 (22.0 percent) respondents once a week used WhatsApp to access HIV/AIDs related articles/stories, 14 (4.3 percent) two-three times a week, and 7 (2.2 percent) used WhatsApp to access HIV/AIDS related articles/stories four to five times a week.

The question was asked to determine how often the three social media platforms were being utilised to access HIV/AIDS related articles/stories by the young people aged 18-24 years in Harare. The frequency of how often the three social media platforms were used to access HIV/AIDS information would inform organisations dealing with HIV/AIDS information if there was need to improve on social media dissemination methods. The data show that the majority of respondents were not using the WhatsApp platform to access HIV/AIDS related articles/stories, hence, there is under-utilisation of these three social media platforms to access HIV/AIDS information by the young people aged 18-24 years in Harare.

The majority of respondents - 318 (98.8 percent) used Facebook once a week to access HIV/AIDS related articles/stories, 129 (40.1 percent) respondents used Twitter once a week to access HIV/AIDS related articles/stories, and 71 (22.0 percent) respondents used WhatsApp once a week to access HIV/AIDS related articles/stories. If the young people in Harare are utilising Facebook, Twitter and WhatsApp often, it shows that these social media platforms are of value to them.

It is not surprising that Facebook was the most used social media platform. When Facebook opened to the public in 2006, by 2010, user numbers already exceeded 500 million (Edsomwan *et al.* 2011). Just four years later, Facebook had doubled its users to a record number exceeding one billion.

User profile pictures and features that allow various means of interaction and communication, are Facebook's defining characteristics that have sparked a new era of social networking worldwide, if not completely revolutionised the very concept and application of social media as a whole. This probably explains why 98.8 percent used Facebook to access HIV/AIDS related articles/stories information. Organisations dealing with HIV/AIDs information in Harare should take advantage of this and reach young people with important HIV/AIDS information through the Facebook platform.

Figure 12 shows that the majority of respondents, 318 (98.8 percent) used Facebook once a week to access HIV/AIDS related articles/stories. The evidence corroborates research finds of Abh, Aderibigbe & Olubunmi (2014) and Klomsri, Greback & Tedre (see Chapter 2).

A significant number of young people 139 (43.2 percent) did not use Twitter to access HIV/AIDS related articles/stories. Twitter has been very influential in the quick sharing of information, especially following major events. Twitter has

become an important source of information during important events most notably during the Arab spring in 2011 (Comnios, 2011).

It is therefore intriguing that a significant number of young people, 139 (43.2 percent) did not use Twitter to access HIV/AIDS related articles/stories in this study. It may be as a result of Twitter communicating contradictory information as reported in other studies (see Section 2.6.1). Young people who responded in this study may not therefore trust Twitter as a social media platform to access reliable and accurate information on HIV/AIDS. This is a significant number considering the potential Twitter has to quickly share information. As the second largest social network and with its rapidly growing membership base, Twitter may have a prominent role to play in sharing, communicating and disseminating HIV/AIDS information among the young people aged 18-24 in Harare. Organisations dealing with HIV/AIDS can partner with prominent experts in Zimbabwe in disseminating HIV/AIDS information via Twitter (See Section 1.3).

The majority of young people 228 (70.8 percent) did not use WhatsApp to access HIV/AIDs related articles/stories despite it being a very cheap social medium world-wide. This is cause for concern and further investigation considering the ease of use of this platform as well as high usage rates all over the world. Other social media platforms mentioned were Instagram and Google plus. The use of Instagram and Google plus was also mentioned in the Focus Group Discussions (FGD).

The data also show that social media use among the young people aged 18-24 in Harare is fairly regular, with most young people indicating daily use. Organisations disseminating HIV/AIDS information to young people may consider using these platforms given their rising popularity. These platforms are

worth investigating/utilising for the dissemination of HIV/AIDS information among young people aged 18-24 year in Harare. For any organisation looking to leverage social media to empower young people, these will be the right platforms through which HIV/AIDS information can be disseminated.

Question 12. In the past month, how often did you read HIV/AIDS-related messages disseminated on the social media?

Facebook

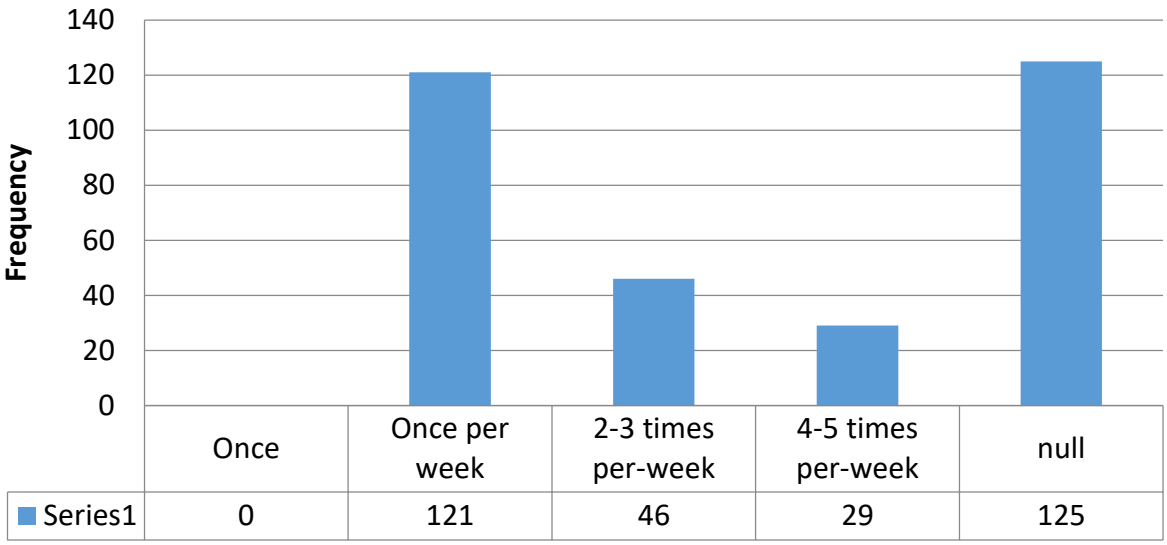

Figure 15. Use of Social Media for HIV/Aids Dissemination

The young people aged 18-24 years were asked to indicate how often they read HIV/AIDS related messages disseminated via Facebook, Twitter and WhatsApp platforms in the previous month. Respondents were presented with several options ranging from once a week to 4-5 times a week to indicate how often they access disseminated HIV/AIDS information.

Figure 15 shows that **t**he majority of respondents, 125 (38.8 percent) did not use Facebook to read disseminated HIV/AIDS-related messages, 121 (37.7 percent) respondents used Facebook to read HIV/AIDS-related disseminated messages once a week, 46 (14.3 percent) respondents used Facebook to read HIV/AIDS-related disseminated messages two - three times per week and 29

(9.0 percent) four-five times per week. 1 (0.3 percent) respondent was missing in the system.

Twitter

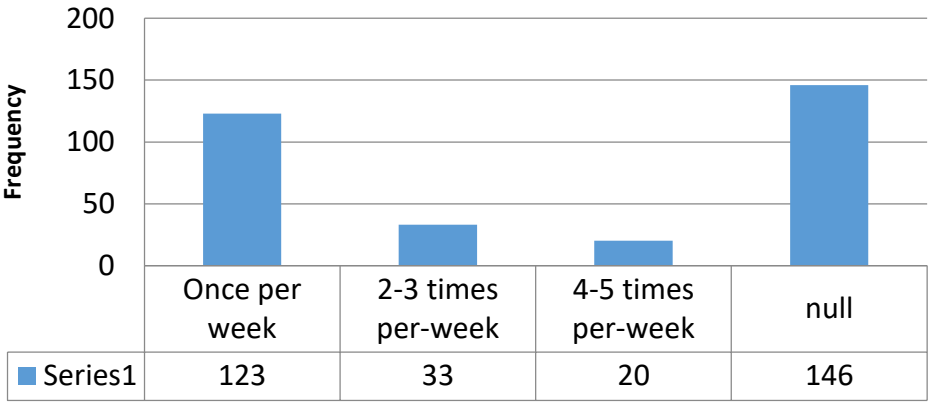

Figure 16. Usage of Twitter

Figure 16 shows that the majority of respondents, 146 (45.3 percent) did not use Twitter to read HIV/AIDS-related disseminated messages, 123 (38.2 percent) used Twitter to read disseminated HIV/AIDS-related messages once a week, 33 (10.2 percent) two-three times per week and 20 (6.2 percent) used Twitter to read disseminated HIV/AIDS-related messages four-five times a week.

Whatsapp

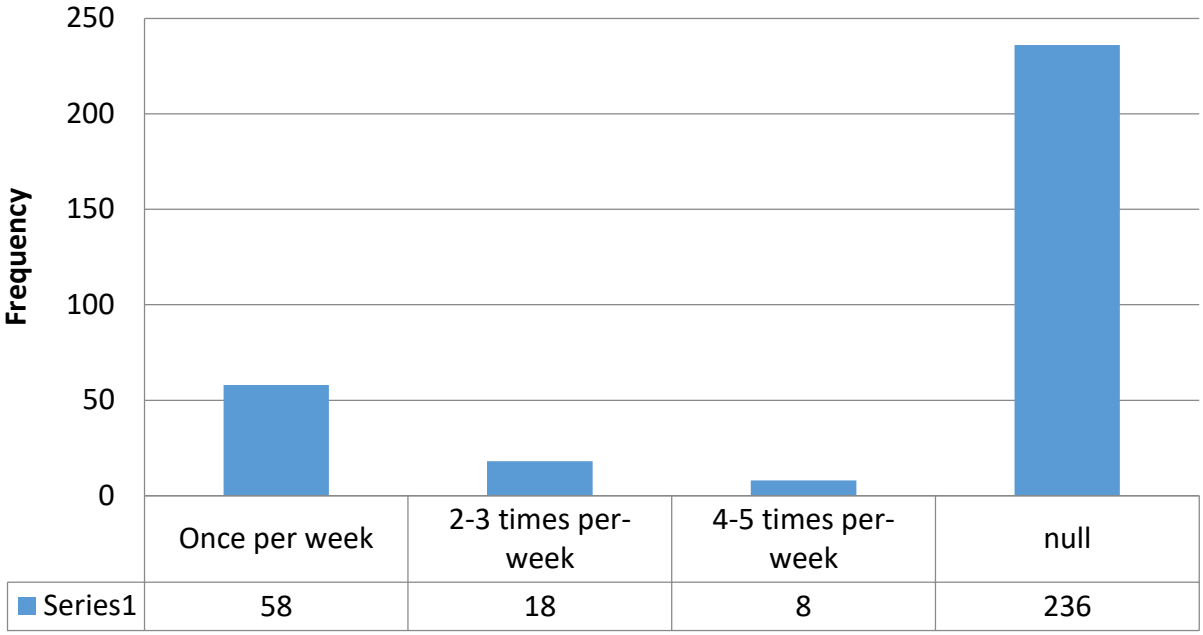

Figure 17. Usage of WhatsApp

Figure 17 shows that most respondents, 236 (73.3 percent) did not use Whatsapp to read disseminated HIV/AIDS-related messages, 58 (18.1 percent) used Whatsapp to read disseminated HIV/AIDS-related messages once a week, 18 (5.6 percent) two-three times a week and 8 (2.5 percent) used Whatsapp to read disseminated HIV/AIDS-related messages four-five times per week.

The question was asked to determine how often the three social media platforms were being accessed by the young people aged 18-24 to read disseminated HIV/AIDS related messages. Depending on the frequency of use, this would assist organisations to make optimal use of the three platforms to disseminate HIV/AIDS information among young people. The data show that the majority of respondents were not using any of the three social media platforms to read disseminated HIV/AIDS-related messages.

The data show that most young people in Harare did not use WhatsApp to read disseminated HIV/ADS-related messages, and yet in Zimbabwe, the app was responsible for about half of all internet data in 2017 (see Chapter 2). This

justifies organisations dealing with HIV/AIDS to design programmes that capitalise on using WhatsApp to disseminate information on HIV/AIDS among young people in Harare.

Question 13. In the past month, how often did you share HIV/AIDS-related messages via the social media?

Facebook

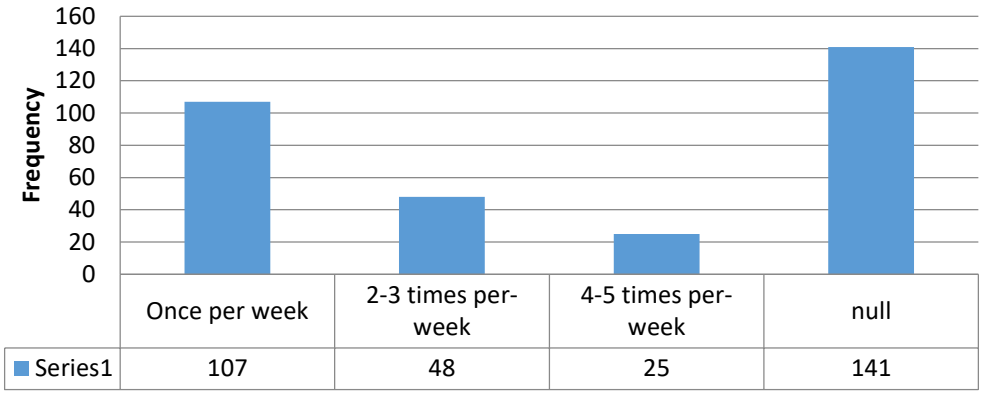

Figure 18. Shared HIV/AIDS related messages via social media

Respondents were also asked to indicate how often they shared HIV/AIDS-related messages through Facebook, Twitter and WhatsApp social media platforms?

Figure 18 shows that the majority of respondents, 141 (43.8 percent), did not use Facebook to share HIV/AIDS-related messages, 107 (33.2 percent) used Facebook to share HIV/AIDS-related messages once a week, 48 (14.9 percent) two-three times per week and 25 (7.8 percent) used Facebook to share HIV/AIDS-related messages four-five times a week.

Twitter

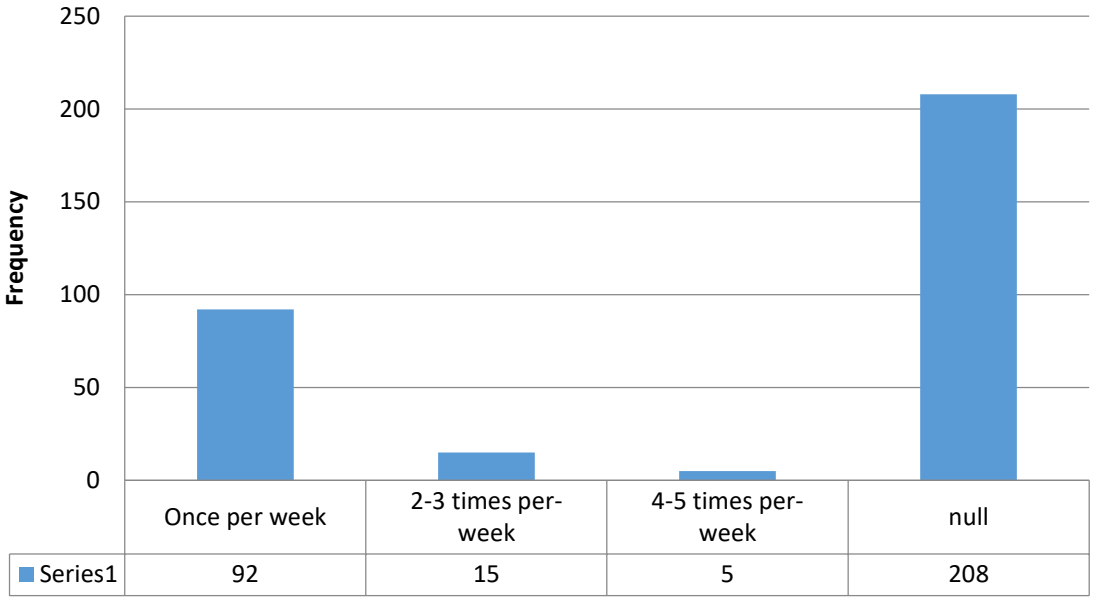

Figure 19. Twitter Rate of Use

Figure 19 shows that the majority of respondents, 208 (64.6 percent) did not use Twitter to share HIV/AIDS-related messages, 92 (28.6 percent) accessed Twitter to share HIV/AIDS-related messages once a week, 15 (4.7 percent) two-three times per week and 5 (1.6 percent) accessed Twitter to share HIV/AIDS-related messages four-five times a week.

WhatsApp

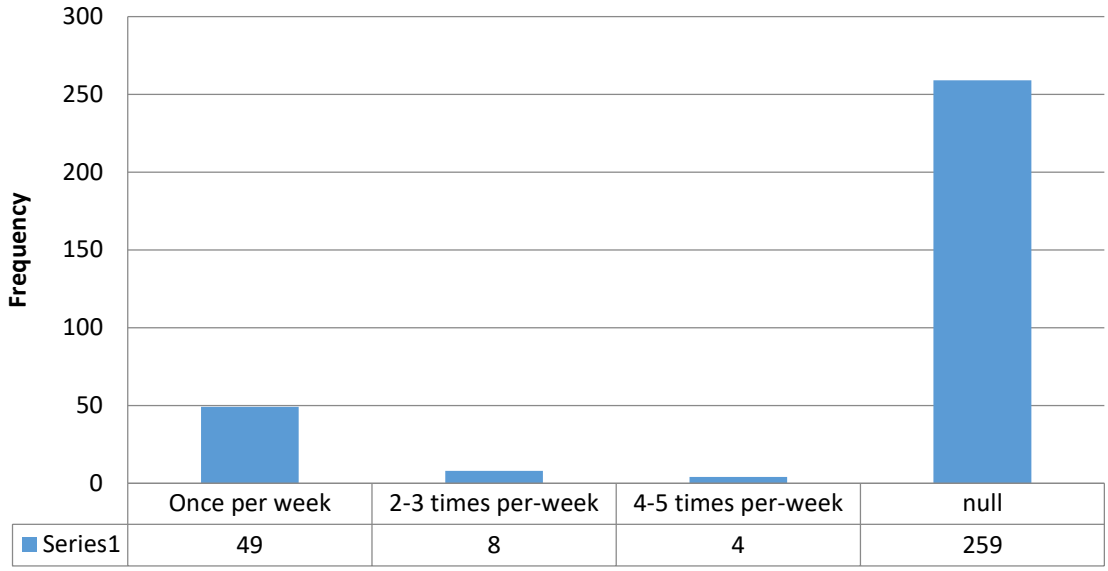

Figure 20. Frequency of Sharing HIV/AIDS-related Messages via WhatsApp

Figure 20 shows that the majority of respondents, 259 (80.4 percent) did not use WhatsApp to share HIV/AIDS-related messages, 49 (15.2 percent) accessed WhatsApp to share HIV/AIDS-related messages once a week, 8 (2.5 percent) two-three times per week and 4 (1.2 percent) accessed WhatsApp to share HIV/AIDS-related messages four-five times a week. 2 (0.6 percent) were missing in the system.

The question was asked to determine how often the three social media platforms were being accessed to share HIV/AIDS related messages by the young people in Harare aged 18-24. This would help with designing programmes that ensure that the young people would quickly share the disseminated HIV/AIDS information among themselves. Sharing is also a form of disseminating. The data show that the majority of young people aged 18-24 do not use the three social media platforms to share HIV/AIDS related messages.

The Facebook platform was popular for sharing HIV/AIDS information with

young people as follows: 107 (33.2 percent) accessed Facebook to share HIV/AIDS-related messages once a week, 48 (14.9 percent) two-three times per week and 25 (7.8 percent) accessed Facebook to share HIV/AIDS-related messages four-five times a week.

This was followed with Twitter with the following: 92 (28.6 percent) accessed Twitter to share HIV/AIDS-related messages once a week, 15 (4.7 percent) two-three times per week and 5 (1.6 percent) accessed Twitter to share HIV/AIDS-related messages four-five times a week.

The least accessed social media platform was WhatsApp with the following: 49 (15.2 percent) accessed WhatsApp to share HIV/AIDS-related messages once a week, 8 (2.5 percent) two-three times per week and 4 (1.2 percent) used WhatsApp to share HIV/AIDS-related messages four-five times a week. 2 (0.6 percent) were missing in the system. Of concern is that WhatsApp was the least used social media platform by young people and yet it is cheap to share messages via this platform.

5.2.5 HIV/AIDS-Related Media Use

Questions in this section covered the preferred media and languages for accessing/disseminating HIV/AIDS information among young people in Harare.

Question 14. Select the media through which you prefer organisations to disseminate HIV/AIDS information (*You can choose more than one)*

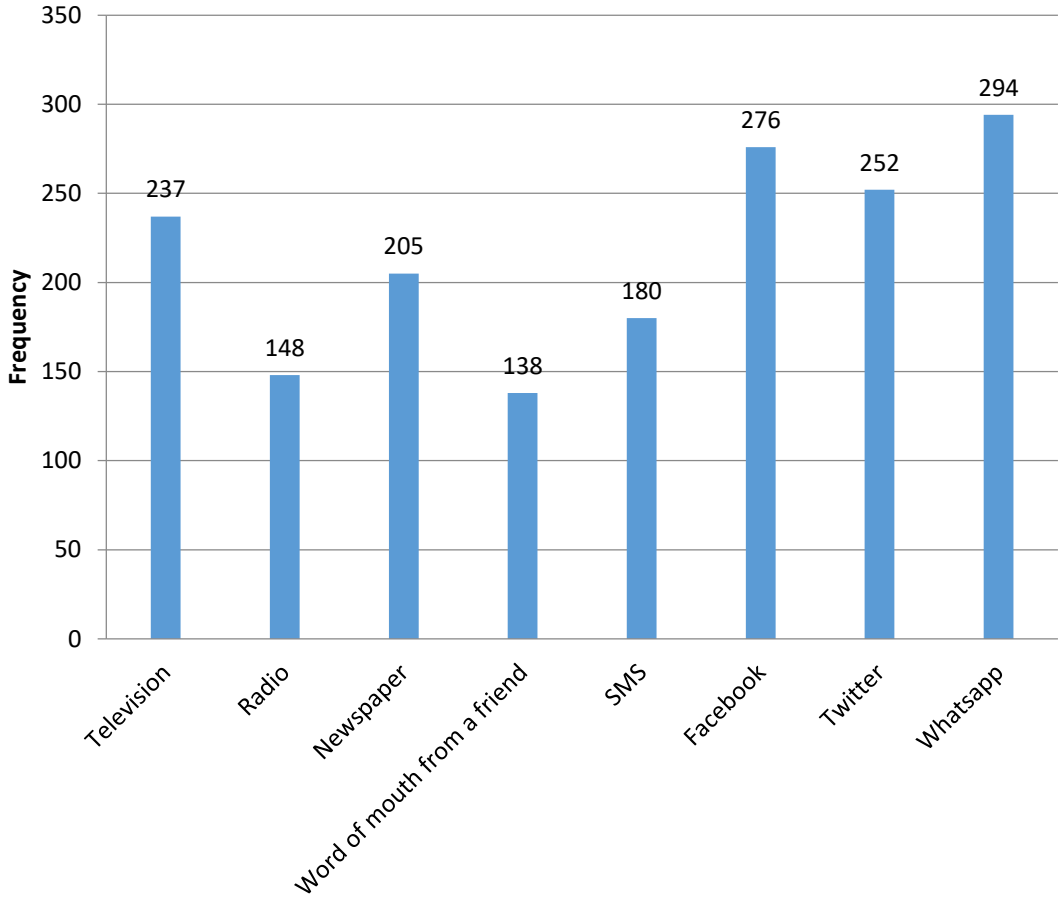

Figure 21. Preferred media through which Organisations can disseminate HIV/AIDS information

Figure 21 shows that most respondents 294 (91.3 percent) preferred to access information about HIV/AIDS through Whatsapp, 276 (85.7 percent) through Facebook, 252 (78.2 percent) though Twitter, 237 (73.6 percent) through television, 180 (55.9 percent) through SMS, 148 (45.9 percent) through the radio and 138 (42.8 percent) through word of mouth.

The question was asked to determine the preferred media to access information about HIV/AIDS by the young people age 18-24 in Harare. This will assist providers of HIV/AIDS information to design disseminating platforms that will result in the majority of 18-24 age groups accessing the vital information about HIV/AIDs in the quickest possible way. It will also assist organisations to

design programmes that will make this target group to actively respond/participate in HIV/AIDS activities.

The expectation was to have Facebook as the most popular social media platform to be used by young people (see Chapter 2 & Figure 12). According to Olson (2013) Facebook made a startling admission in its earnings announcement in November 2013. Facebook was seeing a "decrease in daily users specifically among the teens", which means that although teens are still on Facebook; they are just not using it as much as they did. This may explain why in this study Facebook was second in preference for accessing HIV/AIDS information after WhatsApp.

WhatsApp has become the most popular medium of interaction among the people as it is convenient to use. This app can be easily downloaded and works in various electronic items such as Iphone, Android, windows phone and computers. The power users and early adopters of these apps are under 25 (Olson 2013). The priceless exchange of text, image, video, audio message and calling has mesmerised young people to use WhatsApp. WhatsApp alone is on more than 95 percent of all smartphones in Spain. This may explain why the majority of young people in Harare (91.3 percent) preferred to access information about HIV/AIDS through WhatsApp.

The data from this study show that organisations dealing with HIV/AIDS information should capitalise on the use of WhatsApp in disseminating HIV/AIDS among young people in Harare, by virtue of it being the biggest messaging app in the world with even more active users (350 million monthly active users globally) than the social media Twitter, which counts 218 million (see Chapter 2).

One of the strengths of WhatsApp is that it promotes dynamic real time chatting

with different groups of real life friends, instead of passively stalking people one barely knows on Facebook.

WhatsApp social networking application allows users to send messages, create groups of contacts, and share videos and images for free via wireless Internet from their smart phones. These advantages including others outlined above, may have influenced young people in Harare aged 18-24 to embrace the WhatApp social networking application. The majority of young people in the survey prefer to access information about HIV/AIDS through WhatsApp platform. What is coming out of this study is that formulating a model in which WhatsApp platform is used to disseminate HIV/AIDS information among young people in Harare should be pursued.

Organisations dealing with information on HIV/AIDS among young people in Harare must therefore consider making WhatsApp the social media platform of their choice for the dissemination of HIV/AIDS information among young people aged 18-24 because of the following reasons:

- If one has unlimited text messaging, it is still beneficial as it is a convenient way to skip international fees that carriers may charge;
- It is popular because there is no cost to message friends and family other than the Internet data plan that users already have on their phones;
- It is easy to get started; simply enter the telephone number of the device into the app.
- Users can invite more contacts or go ahead and start sending messages that the app discovered;
- Apart from making its users getting connected with each other, it also helps them to create groups, send unlimited images, video and audio messages and even now documents up to 100 Mb (Sharma, 2016).

Question 15. If you have preferred social media in the previous question (Q 14) explain why?

Respondents who preferred social media to be the best platform to disseminate HIV/AIDS information were further requested to give reasons why.

Responses were classified as:

- A lot of teenagers or rather youth are addicted to social media, for example, WhatsApp, Facebook, Twitter and Youtube;
- Majority of youths between 15-24 are much more exposed to social media platforms like WhatsApp and Facebook;
- Many young people are exposed to social media so it will be an easy task to disseminate information about HIV/AIDS;
- Because that's where they spend most of their time on;
- Social media has a wide coverage;
- It's faster to communicate using social media.

The data show that the majority of young people are exposed to social media platforms such as WhatsApp, Facebook, Twitter and Youtube. Most of the young people are also aware that social media reaches many people and is also a faster tool to communicate essential information such as HIV/AIDS. It is therefore critical to utilise this platform to disseminate awareness information on HIV/ADS to the young people in Harare.

Social networks have become a common phenomenon over the past decade in both developed and developing countries because people want to identify themselves with a particular group or status (Daka *et al*., 2017). Social media has in the recent years become a part of people's daily lives, and with it has come a new way to communicate and interact (Klomsri 2013). In addition, social networks sites allow users to post, share and communicate with other

users on any one social media platform as well as many other linked platforms. Social media creates the opportunity to network with other members who share similar or common interests, dreams and goals. This might explain why in the survey results, the majority of young people aged 18-24 (269; 83.5 percent) agree to social media being the best platform to disseminate HIV/AIDS information among this age group.

Social media platforms, including mobile technologies and social networking sites, are being used increasingly as part of human immunodeficiency virus (HIV) prevention and treatment efforts. Importantly, social media provides users with the opportunity to generate, share, and receive information through bi- and multidirectional exchanges, which may transcend geographic borders and provide an opportunity for anonymity. Further, as the globalisation of HIV and its presence in more geographically distant and underserved communities increases, social media provides an opportunity to extend the reach of HIV/AIDS prevention and treatment efforts. The widespread use of social media represents an important channel for communication and dissemination of HIV/AIDS among young people in Harare.

Further, the emerging social media such as online forums, message boards and health related social networking sites have received immense attention from health information seekers. Social media platforms can provide a channel through which young people in Harare can connect with others, exchange information and share experiences. Online social networking sites have the potential to amplify the speed and ease with which information on HIV/AIDS is disseminated to young people aged 18-24 in Harare as well as enabling interactive communication flows within networks.

Question 16. If you have not preferred social media, explain why not?

Respondents who consider social media not to be the best platform to

disseminate HIV/AIDS information were further requested to give reasons why.

Responses were classified as:

- Most people trivialise information received on social media, easily forget;
- There is a lot of competing attractive news on entertainment so it is very difficult for the young people to read through messages about HIV/AIDS;
- Social media is being abused. It is not the right platform for serious educational information;
- Not everyone has access to social media platforms;
- There is information overload on social media.

The data show that there is a lot of information accessed through the social media such as news and entertainment to the extent that the young people might miss out on the most important issues on HIV/AIDS. Some young people felt that social media is abused and, therefore, it is not the best platform to disseminate serious educational information on HIV/AIDS.

Sharma & Shukla (2016) also share negative effects of WhatsApp as a platform for accessing important information. In their study "Impact of social messengers especially WhatsApp on youth: a sociological study", the survey results show that there are certain students who are not happy with the non-informative messages or information which they accessed. 65 percent of the students in the study believe that the language students used while chatting affects their academic language and spoils their spelling skills and grammatical construction of sentences and it also affects their study time. Some of the students also indicated that they may get misleading information or fake news.

It is therefore important to note that social media has its advantages and disadvantages. The data in this study show that the majority of young people are exposed to social media such as Whatsapp, Facebook, Twitter and Youtube. This study therefore recommends maximum use of these platforms to

disseminate HIV/AIDS information among young people in Harare. This calls for proper repackaging of information on HIV/AIDS to be disseminated through these networks to the young people aged 18-24 in Harare. This will assist in this age group accessing only relevant HIV/AIDS information that might help them to change their behaviour, change their perceptions, attitudes and beliefs or impact on their knowledge about HIV/AIDS. It is critical that organisations capitalise on the advantages of disseminating information on HIV/AIDS via social media networks if they are to reach the majority of this vulnerable group in Harare.

Question 17. Select the language in which you prefer to access information about HIV/AIDS

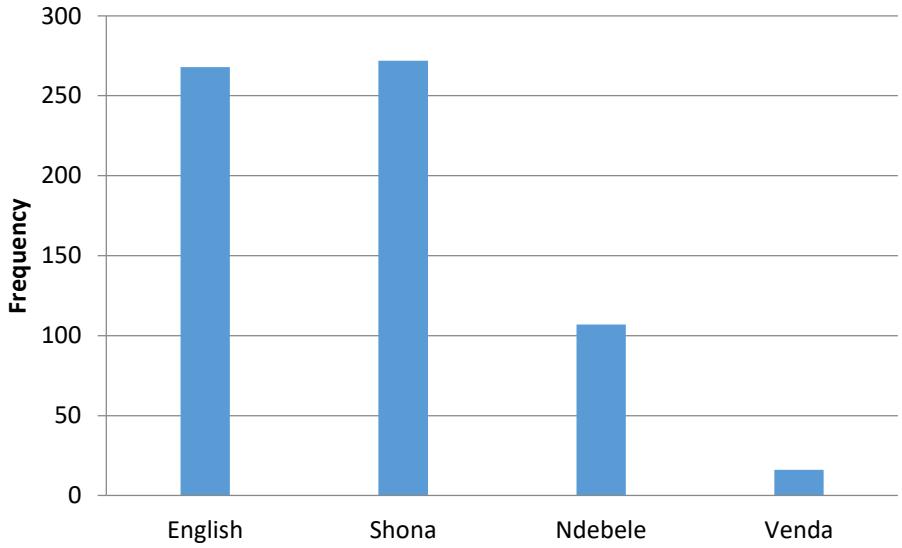

Figure 22. Preferred language to access information about HIV/AIDS

Figure 22 shows that the majority 272 (41.0 percent) prefer to access information about HIV/AIDS in Shona, 268 (40.4 percent) in English, 107 (16.1 percent) in Ndebele and 16 (2.4 percent) in Venda.

The question was asked to determine the preferred language to access information about HIV/AIDS by the young people aged 18-24 in Harare. The data show that the majority prefer to access information on HIV/AIDS in Shona. This shows that young people prefer the information to be disseminated in their first language. It is also interesting because some of the participants were from an institution of higher learning, and the majority of the respondents had attained tertiary and secondary education (see figure 4). This is probably the language they use to socialise. The same sentiments about accessing information about HIV/AIDS in Shona, also came to the fore in the FGD. Respondents were of the view that anything usually written in local languages is interesting.

However, it is important to note that English ranked as the second preferred language to access information about HIV/AID**S** - 268 (40.4 percent)**.** English is an international language and many young people aged 18-24 find it easier to communicate in English. In Zimbabwe, English is also used for teaching purposes, hence this age group is conversant with this language.

This implies that organisations dealing with HIV/AIDS should be sensitive to the language usage of targeted groups. The data in this study show that HIV/AIDS programmes, if designed properly in all the preferred and indigenous languages, has the potential to reach a wider group of young people aged 18-24, including those in the rural or remote areas in Zimbabwe (Kembo 2012).

5.6 Qualitative Data Analysis

Focus group discussions (FGD) were used to gather qualitative data. The FGD interviews are a substantive methodological component of this study. Below is a summary of the information collected via the FGD interviews.

5.6.1 Background: Focus Group Discussions

Focus Group Discussions were conducted in order to obtain group generated perspectives and opinions and relate them to the questionnaire responses. There was a set of seven questions which were grouped according to the key objectives of the study (see Appendix B). Two Research Assistants set out to conduct the FGD. They adopted a random purposive sampling of participants between the ages of 18-24. Each group of participants would have a minimum of six and a maximum of 10 participants. The Research Assistants selected groups of young men and women to recruit for the discussions based on a few preliminary questions to establish their suitability.

The participants were advised of the purpose of the discussion, their right to remain anonymous during the discussion and to freely express themselves in responding to questions raised by the Research Assistants. One Research Assistant would concentrate on asking the questions whilst the other would be recording the responses from the participants. The Research Assistants would conduct each FGD, then sit down to compile the data gathered in line with the objectives of the study, before recruiting another group. At the University of Zimbabwe, the setting of the FGD was a serene and quiet environment which the participants normally use for other discussions as groups. The responses are discussed below.

Question 1. How knowledgeable are you about HIV/AIDS disease?

The majority of participants demonstrated variable levels of knowledge about HIV/AIDS, and they were in agreement that HIV/AIDS is a virus that attacks the body's immune system. Furthermore, the participants revealed that if a

person is diagnosed with HIV/AIDS, such a person is required to go on anti-retro viral treatment to prolong his /her life. In one of the narratives, the participant said that HIV/AIDS is a killer disease and another respondent retorted that HIV/AIDS does not kill but only weakens the immune system and *ukazvichengetedza haufe (*If you live positively following your diagnosis/treatment a person can live a normal life). The participants were also in consensus that a person with HIV/AIDS needs to have a healthy lifestyle, by eating unprocessed foods, avoid risky sexual behaviour, avoid reinfection through consistent use of condoms and exercise regularly. One of the participants recounted that:

"A person can live well and healthy with the virus as long as you take your medication and adhere to a healthy lifestyle. I know someone who was infected with HIV/AIDS at 23 years and the person is now 52 years old and very healthy. I also know a youth from our church born HIV positive and is now 19 years and very healthy"

Although the majority of responses from the participants suggested a reasonable knowledge of HIV/AIDS, there were some participants who demonstrated an 'alarmist' view of the disease. Some insisted that HIV/AIDS is a killer disease that it is deadly and that once tested positive, one will die. However, these were rejected by a participant, who narrated that:

"*My mother was diagnosed of [sic] insulin dependent diabetes in 2013 and passed on after 3 years, yet I know youths who were born with HIV/AIDS and are living health"*. Much work remains to be done to disseminate the facts about the disease to this target group.

The participants also demonstrated very strong knowledge on how people contracted HIV/AIDS. It was revealed that HIV/AIDS was contracted through

unprotected sex, mother to child transmission during child birth by an infected mother, cuts from sharp objects such as razor blades and syringes used by infected individuals. In addition, the majority of the participants were of the view that the majority of infections are as result of unprotected sex.

The data are similar with those derived through the quantitative survey. On this aspect there is a stronger consensus and it is correct information.

Question 2. What is your understanding of social media?

The responses revealed that young people who took part in the FGD had a very clear understanding of social media. The participants were in consensus that social media were online digital platforms that enable individuals to create and share content as well as participate in social networking. The participants narrated that social media were used by the youth to communicate ideas because they have a wider reach. This is in line with Heldman, Schindelar, & Weaver (2013: 3) who argue that "social media allow us to share relevant content in new and emerging channels, test how our messages resonate in different spaces. Through the use of social media channels, public health organisations can share relevant content where users are already spending their time".

In addition, the young people identified the platforms that are popular, such as WhatsApp, Facebook, Twitter, Instagram, LinkedIn and Skype. The participants revealed that the most commonly used social media platforms were Whatsapp and Facebook. A small minority of the participants revealed some ignorance about social media platforms by referring to television and the Internet as examples.

Question 3. What type of information do you access via social media?

The participants revealed that they typically accessed educational, entertainment, current affairs, and religious information, as well as humour and sex messages. This reinforces responses to Question 10 in the questionnaire where participants were asked to indicate what type of information they accessed via social media. The majority of participants 282 (15.1 percent) accessed educational information, 278 (14.8 percent) entertainment information, 263 (14.0 percent) news , 252 (13.5 percent) humour/jokes, and 222 (11.9 percent) respondents accessed religious information.

It is instructive that the participants were all in agreement that the type of information that was accessed via social media was dependent on a number of key variables. Young people created social media groups according to a unique purpose such as a class group for communicating educational information, social groups for communicating social and entertainment information and church groups for religious information. What was evident from this is that the type of information that the young people access using social media was dependent on the purpose of the group, and the nature of the interests of who would form part of the group.

This is in line with Akerlund (2011: 137) who argues that social networks answer to some basic human need such as wanting to be included in a group and a context. Social networks also enable one to understand one's place in the world and to reflect on how others see them.

Question 4. Why would you prefer to access information on HIV and AIDS via social media as compared to other forms of media?

The participant's views were varied. Those who preferred to access HIV/AIDS information via social media platforms considered anonymity as an important justification. They were in agreement that there is still significant stigmatisation

associated with HIV/AIDS, hence accessing the information through social media was ideal as a person will remain anonymous.

Taggart *et al*. (2015) concluded that using social media to bridge communication among a diverse range of users, in various geographic and social contexts, may be leveraged through pre-existing platforms and with attention to the roles of anonymity and confidentiality in communication about HIV prevention and treatment (see Chapter 2). Taggart *et al*. (2015) further argue that anonymity allows users to control the information they disclose about themselves, which may allow marginalised populations to feel more comfortable communicating about HIV on social media platforms. Social media platforms may provide PLWHA with an opportunity to anonymously rehearse HIV status disclosure, which may facilitate disclosure in real world settings. An important next step to using social media to communicate about HIV is to identify which designs best create and facilitate a sense of privacy, confidentiality and safety.

The responses show that young people were also of the view that social media platforms had a wider reach than any other forms of media which makes it ideal to access HIV/AIDS information. The participants were of the view that most youths and/ or households have access to a smartphone which makes it desirable to access HIV/AIDS information through social media. In addition, participants were of the opinion that Internet penetration is now very high across the country and the cost of data bundles has significantly declined hence it was ideal to disseminate HIV/AIDS information via social media.

The participants who did not prefer use of social media in disseminating HIV/AIDS information were of the view that there is significant abuse of social media through distorting information, re-editing of the initial messages for

mischievous or other selfish desires which makes the source fail on credibility. In addition, some were impatient to read through what they termed long and boring messages about HIV/AIDS, and instead, prefer current affairs and entertaining information. However, though a significant number of participants were willing to access HIV/AIDS information through social media, they emphasised that such information must be brief and with graphics and short videos that would make it entertaining to read.

Question 5. What are the benefits of accessing HIV and AIDS information via social media?

The participants revealed that the main advantage of accessing HIV/AIDS information was that young people are able to receive real time information and make appropriate and correct decisions on time. One participant narrated that:

"My wish is to be able to get HIV/AIDS from an authorised organisation such as the Zimbabwe National AIDS Council, or the various HIV/AIDS clinics on testing of HIV/AIDS, treatment options, booking and appointment with a counsellor, information on centres that provide male circumcision, etc".

Question 6. Do you consider social media to be the best platform to disseminate HIV/AIDS information among the 18-24 age groups?

The participants gave various responses in relation to HIV/AIDS related media use. The majority affirmed to the relevance of using social media to communicate HIV/AIDS among young people. This was particularly as a result of the confidentiality that it provides wider coverage and real time access to critical health information, which can save lives when people make the right decisions at the right time.

In January 2013, TemanTeman.org launched its website and social media campaign using celebrities and edutainment to promote HIV awareness in Indonesia. TemanTeman.org site features hundreds of videos in which Indonesian celebrity ambassadors and healthcare experts discuss HIV. In less than two years, it had garnered nearly 400,000 visitors, and the celebrity ambassadors have reached millions more by posting about HIV on their social media pages.

The participants in Harare raised several concerns if social media were going to be used to disseminate HIV/AIDS information. One participant narrated that:

"The Deaf Community and other vulnerable groups are excluded. For instance, the grammar book for Deaf people has only 347 words which will make it very difficult for them to understand information sent using social media. This is because the conventional vocabulary has more words which may have deeper meaning outside the framework of the deaf community's grammar book"

Another responded as follows:

"The language of the deaf and blind varies from region to region which will make it difficult to have a standardised language which they can understand. For example, "Kunyenga means proposing love in the Mashonaland regions and can be said in public, however, the same word in Mashonaland East - Mutoko and Mudzi areas, means actual sexual intercourse and it is taboo to say it publicly".

The above presentation is critical as it makes two important observations. The first is that the majority of respondents are in agreement with the use of social media in disseminating HIV/AIDS among the young people. The second is that the respondents make it clear that in adopting social media in disseminating

HIV/AIDS, care must be taken so that other groups in society are not discriminated against.

In a study by Yousafzai *et al.* (2005) barriers preventing adequate accessing of information about HIV and AIDS experienced by adolescents with disabilities depended on the nature and severity of the impairment. For example, parents and health workers were unable to communicate with deaf adolescents using sign language, adolescents with physical impairments were often unable to access community meetings about HIV and print material was not adapted for those with visual impairments.

According to the study, media campaigns did not consider the needs of people with impairments, for example, campaigns that relied heavily on the radio and television were not accessible to deaf people and additional support for teaching people with learning disabilities was often not available and adapting teaching techniques for different impairment groups was not considered. Being unable to communicate with staff was a major concern for the deaf people. Sign language users can therefore be trained to work as HIV counsellors, so that young people aged 18-24 in Harare with disabilities are not discriminated against.

A long term goal remains such as inclusive policies within education, development and poverty alleviation strategies to ensure people with disabilities are not marginalised.

Question 7. Which language would you prefer to access information about HIV/AIDS?

The majority of participants also indicated that they would prefer the use of Shona as the preferred medium of communicating HIV/AIDS information.

Others expressed that the Constitution of Zimbabwe recognises 13 official languages and these must also be considered.

Conclusion

There is still a lot of stigma around issues of HIV/AIDS among the 18-24 year age group and many still prefer to remain anonymous. Social media platforms/groups are designed for particular purposes such as classmates, church goers, etc. So it could be of interest to have a purposely designed group for dissemination of HIV/AIDS information. Young people aged 18-24 in Harare may be a starting point in ensuring that social media platforms are used for disseminating critical, reliable and accurate HIV/AIDS information.

5.7 Interviews with Representatives of Organisations Disseminating HIV/AIDS Information in Harare

The following section presents a discussion on the outcome of interviews with the representatives of organisations currently disseminating HIV/AIDS information in Harare.

5.7.1 Introduction

In an effort to investigate models currently in use in disseminating HIV/AIDS information in Harare, key staff at HIV/AIDS organisations were interviewed. These were one on one interviews using nineteen questions (See Appendix C). One representative from each of six organisations were interviewed. The organisations are: Hope Zimbabwe; National AIDS Council of Zimbabwe (NAC); Zimbabwe AIDS Network (ZAN); Zimbabwe National Network for People Living with HIV/AIDS (ZNNP); Southern African HIV *and AIDS* Information Dissemination Service (SAFAIDS); and the Zimbabwe Catholic Bishops' Conference (ZCBC) HIV and AIDS Desk. Below is a table of the

HIV/AIDS Organisations in Harare, and the ranks of the people interviewed.

Table 1. Ranks of the people interviewed

NAME OF ORGANISATION	RANK
Hope Zimbabwe	AIDS Outreach Coordinator
National AIDS Council of Zimbabwe	Provincial Manager
Zimbabwe AIDS Network	Regional Coordinator
Zimbabwe National Network for People Living with HIV/AIDS	Ward, District and Provincial organisation's representatives
Southern African HIV *and AIDS* Information Dissemination Service	Team Leader – Media, Marketing and Public Relations
The Zimbabwe Catholic Bishops' Conference (ZCBC) HIV and AIDS Desk	AIDS Coordinator at the HIV/AIDS Desk

What follows is the presentation and interpretation of the data collected from the interviews.

Question 1. When was your organisation established?

Most of the organisations disseminating HIV/AIDS information in Harare were established in the early 1990s. They have therefore been in existence for more than fifteen years, which makes the data/information received from these organisations relevant to this study.

Question 2. What are the main aims of your organisation?

The main aims of the organisations disseminating HIV/AIDS information varied. Some focused on supporting communities by combating HIV, tubercolosis, and non-communicable diseases; and ensuring that the right to

health is achieved through an inclusive, credible, and representative national network of HIV and Health programmes. Some organisations were established to stop the spread of HIV and AIDS in Harare, while other organisations disseminating HIV/AIDS information aimed to improve the quality of people living with Human Immune-Deficiency Virus (See 1.8) (PLWHIV).

According to The National AIDS Council (NAC) of Zimbabwe Act 16/1999, 22/2001 (Chapter 15:4), the functions of the NAC are to provide for measures to combat the spread of the Human Immune-Deficiency Virus and the Acquired Immune-Deficiency Syndrome and the promotion, co-ordination and implementation of programmes and measures to limit or prevent their spread; and to provide for matters connected with or incidental to the foregoing (National AIDS Network). The aims of all the organisations disseminating HIV/AIDS information in Harare overlapped. However, the main focus was on combating the spread of HIV/AIDS and improving the lives of people living with HIV/AIDS. This shows that HIV/AIDS is an area of grave concern in Harare, and serious efforts are being made to combat the disease by disseminating HIV/AIDS information. However, some of the efforts are being hampered by the lack of adequate funding due to budget cuts as expressed by the NAC Director. This has resulted in cutting on some of the activities, such as disseminating HIV/AIDS information through road shows. This is a serious lapse which calls for HIV/AIDS organisations to not just wait for money from donors. In the proposed model, organisations have to introduce ways of raising funds so that disseminating of HIV/AIDS information continues.

Question 3. How is your organisation funded?

Most of the organisations are donor funded and funds are also raised from subscriptions from members. NAC of Zimbabwe is funded through the National Trust Fund, AIDS Levy, its partners, Global Fund and small grants from the US

Government.

None of the organisations disseminating HIV/AIDS information in Harare was willing/ready to divulge their budget in figures. It might be that HIV/AIDS organisations are underfunded, and divulging their budget may result in people doubting whether they are providing effective and efficient services to people affected with HIV/AIDS in Harare. Making their budgets public may result in people not having confidence in the services provided by these organisations, thereby impacting on them. However, from the interviews, most of the organisations do not seem to have enough resources to carry out their HIV/AIDS activities. There is therefore a dire need for HIV/AIDS organisations to suggest with funding strategies so that they are able to effectively disseminate HIV/AIDS information to the target group. This may need partnering with other new organisations involved with HIV/AIDS activities such as The Bill and Melinda Gates Foundation, or making dissemination of HIV/AIDS information activity a part of the Ministry of Health and Child Care (MOHCC) so that HIV/AIDS disseminating activities are budgeted for.

5.7.2 HIV/AIDS Information Dissemination

Question 4. To whom do you disseminate HIV/AIDS information in Harare? Most of the organisations disseminate HIV/AIDS information to Civil Society Organisations and other HIV Implementing partners such as support group members of PLWHIV, their caregivers and the community at large. NAC disseminates HIV/AIDS information to the entire population of Harare. SAFAIDS disseminates HIV/AIDS information to women, men, youth, policy makers and AIDS Service organisations. However, there seems to be a poor system of feedback from these civil society organisations and also lack of accountability. HIV/AIDs organisations also do not have direct contact with

HIV patients. Feedback and accountability issues must form and set up the proposed model so that these can be corrected or addressed later. This will improve the dissemination of HIV/AIDS information to the target group.

Question 5. Who in the organisation is responsible for disseminating HIV/AIDS information?

In some organisations, like the NAC, the Provincial Manager is in charge of ensuring that HIV/AIDS information is distributed by the District AIDS Coordinators, Monitoring and Evaluation Officers and NAC partners. In other organisations, ward, district and provincial representatives are responsible for disseminating HIV/AIDS information, whereas in other organisations there are Regional and AIDS Coordinators. SAFAIDS has an established Communications Team headed by a Team Leader, which is responsible for disseminating HIV/AIDS.

In the case of NAC, the Provincial Manager is responsible for coordinating dissemination of HIV/AIDS information. The rank of the person responsible shows the importance given to this activity. It also shows that HIV/AIDS is still an issue of great concern in Harare that it must be coordinated by the Provincial Manager. They also have a structure of how HIV/AIDS information is distributed by the District AIDS Coordinators and Monitoring and Evaluation (ME) Officers. The issue of Monitoring and Evaluation is critical to ensure that dissemination of HIV/AIDS information is effective. There is also need to constantly search for new strategies to ensure that HIV/AIDS information is effectively disseminated to the relevant people. HIV/AIDS organisations should consider using other young people in disseminating HIV/AIDS information, for example, peer educators may be effective in disseminating HIV/AIDS information. Young people feel free to communicate and ask all sorts of questions regarding HIV/AIDS within their age groups.

Question 6. In disseminating HIV/AIDS information do you also target young people aged 18-24?

All organisations target young people aged 18-24, with some organisations reaching out to ages 15-24, which is the UN youth definition (See Chapter 1, section 1:1). One organisation stated that it targets all ages that are able to understand the HIV/AIDS context.

Although it is good to target all ages, there is a challenge of disseminating HIV/AIDS information which may be of no relevance to these age groups, thus wasting resources. The data from this study shows that a more focused approach is needed. It is therefore cost effective to repackage the information so that it suits the age groups for which the HIV/AIDS information is intended (See 5). The repackaged HIV/AIDS information must also be disseminated using the preferred indigenous languages, namely English, Ndebele, Shona and Venda (See 5.2.5; 5.6 and 5.6.1: response to Question 7).

This will assist in eliminating confusion among these age groups by receiving irrelevant information, some of which they will not know how to deal with. Depending on the age groups, some might be traumatised or some of the HIV/AIDS information might induce fear, thereby causing stress, and may result in losing life which could have been prolonged by taking measures in dealing with HIV/AIDS. As emphasised by representatives for some HIV/AIDS organisations, the dissemination of flawed HIV/AIDS information via social network platforms can be fatal and therefore it must be handled with care (See 5.7.1 question 15).

Question 7. Which methods do you use to disseminate HIV/AIDS information to young people in Harare?

Most organisations disseminate HIV/AIDS information through Information, Education and Communication (IEC) materials. In some organisations HIV/AIDS information is disseminated through coordination of activities such as community sensitisation and workshops. NAC also uses entertainment such as road shows and interpersonal communication in schools through school programmes. SAFAIDS disseminates HIV/AIDS information through conferences, Policy briefs, mainline and online media, website and discussion forums.

The Zimbabwe Catholic Bishops Conference (ZCBC) use Youth friendly Corners where peer educators share HIV/AIDS information accessed through the Internet with other young people in a relaxed environment. This is to ensure that young people requiring HIV/AIDS information are free to ask questions for clarity.

Most of the organisations are satisfied with their methods of disseminating HIV/AIDS information to young people in Harare. Although most HIV/AIDS organisations are happy with their methods of disseminating HIV/AIDS information, it is critical to have these methods evaluated, hence, this study. The results from this study will assist in improving the methods used for disseminating HIV/AIDS information to young people in Harare.

Representatives from HIV/AIDS organisations expressed that one of the challenges regarding disseminating HIV/AIDS information through social media is that some young people cannot afford smart phones. This means that there should be ways of ensuring that this information gets to the majority of young people by other means, such as using radio presenters and peers to disseminate the HIV/AIDS information. Hence, improvements should be factored into the proposed model (See 5.2.5 and 5.6.1 and 5.2.3).

Question 8. Which languages do you use to disseminate HIV/AIDS information to young people in Harare?

Most organisations use English, Shona and Ndebele when disseminating HIV/AIDS information in Harare. This shows that young people in Harare also prefer using indigenous languages when receiving HIV/AIDS information. This corroborates with the results from the qualitative data from Focus Group Discussions. (See 5.2.5 and 5.6.1).The proposed model should therefore be presented in using the preferred languages, namely English, Shona, Ndebele and Venda for clarity and simplicity in expression.

5.7.3 Social Media

Question 9. What is your understanding of Facebook, Twitter and WhatsApp as effective platforms for disseminating HIV/AIDS information?

Most organisations agree that Facebook, Twitter and WhatsApp are channels which most people use in communication. They also expressed that these platforms are effective because there is instant communication. Most organisations mentioned that Facebook, Twitter and WhatsApp are very good tools in terms of quick dissemination of HIV/AIDS information to a wide population. This collaborates with the data in this study and the results from the interviews in the FGD in which these social media networks came out as the top preferred platforms for disseminating and accessing HIV/AIDS information (See 5.2.3; 5.2.4; 5.2.5; 5.6.1). Representatives from organisations disseminating HIV/AIDS information in Harare also expressed that the advantage is that young people are comfortable with these media.

Representatives from HIV/AIDS organisations also expressed that although not all young people have phones which are capable of using the social media networks, disseminating information through social media platforms is very informative and user friendly to the youth.

This brings in the issue of face to face and radio broadcasting when disseminating HIV/AIDS information to the young people. The proposed model can be improved by collaborating with radio presenters as discussed in Chapter 5 (See 5.2.3).

Question 10. For how long has your organisation been using social media to disseminate HIV/AIDS information to young people in Harare?

The years ranged from 2 to 8 years, which makes social media platforms very new to some organisations disseminating HIV/AIDS information in Harare. Some HIV/AIDS organisations indicated that they did not use social media often. However, representatives from such organisations did not indicate their reasons for not using these networks. This could have been as a result of lack of training, hence HIV/AIDS organisations lacked the confidence to utilise the social media platform. The proposed model should ensure that training of staff working with HIV/AIDS organisations becomes a component so that staff are competent in using these social media platforms in disseminating HIV/AIDS among young people in Harare.

They also expressed that it is an excellent tool to use for disseminating HIV/AIDS information to young people in Harare, especially to the born digital generation. They mentioned that young people are fast learners and that the

opportunity to disseminate HIV/AIDS information to young people in Harare via social media must be grabbed as quickly as possible. Organisations should therefore capitalise on the low costs associated with such social media platforms like WhatsApp. HIV/AIDS organisations should leverage on use of social media in disseminating HIV/AIDS information to the young people in Harare. The proposed model will also take this into consideration.

Question 11. Which social media do you think the 18-24 age group in Harare prefer to access HIV/AIDS information (in order of preference, Whatsapp, Facebook, Twitter)?

WhatsApp was on top of the list in all organisations, followed by Facebook and at the bottom of the list was Twitter. Two organisations mentioned Instagram as a potential social media platform for disseminating HIV/AIDS information citing that the 18-24 age group were beginning to make use of this platform because it is capable of sharing photos and videos from a smartphone. Similar to Facebook or Twitter, everyone who creates an Instagram account has a profile and a news feed. Some young people refer to Instagram as a simplified version of Facebook.

Responses from interviews with representatives of HIV/AIDS organisations collaborate with the data from the study as well as with results from interviews in the Focus Group Discussion (See 5.2.5). This shows that Whatsapp, Facebook and Twitter have potential to disseminate HIV/AIDS information to young people in Harare. WhatsApp was on top of the list. The proposed model must therefore leverage on using WhatsApp as an effective social media platform for disseminating HIV/AIDS information among the target group in Harare. Facebook and Twitter can also be used when needed.

Question 12. Which social media platform would you consider best for

disseminating HIV/AIDS information to young people in Harare and why (Facebook, Twitter or WhatsApp)?

Most organisations cited WhatsApp as the best social media platform to disseminate HIV/AIDS information to young people in Harare. Reasons for choosing this platform were that it is cheaper with others mentioning that WhatsApp bundles are cheaper. NAC cited Facebook, WhatsApp, Twitter and Instagram in this order. The data from this study showed WhatsApp, Facebook, Twitter as the top three preferred social media platforms (See Chapter 5.2.3; 5.2.4; 5.2.5; 5.6.1). Instagram was also mentioned as a preferred platform by a few participants in the Focus Group Interviews. The proposed model will have to consider using WhatsApp for disseminating HIV/AIDS information among the target group. Facebook and Twitter were among the top three and can therefore be adopted where necessary.

5.7.4 HIV/AIDS Information

Question 13. Would you prefer disseminating information on HIV and AIDS via social media as compared to other forms of media?

If YES, why?

Most HIV/AIDS organisations mentioned that they prefer disseminating HIV/AIDS information via social media as compared to other forms of media because it is faster, easily accessible for young people and cheaper. These were the same sentiments from the Focus Group Discussions (See Appendix B, Question 5 & 6).

One organisation emphasised that most people are using social media and even those in the rural areas have radios to listen to. The issue of organisations disseminating HIV/AIDS information in Harare collaborating with radio presenters as mentioned in Chapter 5 becomes ideal in such situations (See

5.2.3). Interpersonal communication was also mentioned as a preferred method for disseminating HIV/AIDS information. NAC emphasised that different media should complement each other, but that certain things cannot be clarified on social media platforms (See Appendix C, Question 19).

If NO, why not?

Question 14. What are the advantages of disseminating HIV and AIDS information via social media?

The issue of social media being less expensive and having a wider coverage was on top of the list, interactive; with representatives in some organisations mentioning that if adopted, current HIV/AIDS information will reach many young people in a short space of time. The same views also came out in the Focus Group Interviews (See 5.6.1, Question 6). Representatives from HIV/AIDS organisations also mentioned that disseminating HIV/AIDS information via social media also attracts a lot of views from different people and can be entertaining because of information disseminated through videos and pictures. Some representatives emphasised that disseminating HIV/AIDS information via social media leaves no one behind and demystifies stigma and discrimination. Young people interviewed also emphasised that accessing the HIV/AIDS information through social media was ideal as a person will remain anonymous because of significant stigmatisation which is still associated with HIV/AIDS (See 5.6.1, Question 4).

From the above responses, it seems sensible to adopt a model that utilises social media in disseminating HIV/AIDS among the target group as well as adopting a model that makes it easier for young people in Harare to understand the HIV/AIDS information disseminated.

Question 15. What are the disadvantages of disseminating HIV and AIDS

information via social media?

Some organisations mentioned that information can be distorted and there is no room for probing, with some expressing that factual content can be regarded as jokes. The same concerns collaborate with what came out of the Focus group Interviews (See 5.6.1, Question 4).

The representative from NAC expressed that disseminating HIV/AIDS information via social media causes a lot of stress; some people are not comfortable disclosing that they are HIV/AIDS positive and this can be fatal if not well handled. SAFAIDS representative mentioned that some people might desist from sharing information for fear of being stigmatised.

The proposed model will have to consider not attaching young people's names to mobile numbers on the social media platforms when disseminating the HIV/AIDS information to the target group.

5.7.5 HIV/AIDS Related Media Use

Question 16. Does your organisation disseminate useful information such as nutrition, medical insurance, social relations and employment to HIV patients?

Most HIV/AIDS organisations disseminated the above information to HIV/AIDS patients, with some disseminating information on medical insurance only. NAC mentioned that they even disseminate information on cancer and sometimes they invite experts to make presentations to HIV/AIDS patients. SAFAIDS does not disseminate the above information to HIV patients.

Most HIV/AIDS organisations in Harare are already disseminating the above information, and young people are already among their clients. It therefore becomes easier to disseminate HIV/AIDS information to targeted age groups

because the market to disseminate such information is already available. What is left is for the proposed model to repackage the HIV/AIDS information so that the disseminated information focuses on ages 18-24 in Harare. Organisations such as SAFAIDS should be encouraged to disseminate useful information such as nutrition, medical insurance, social relations and employment to HIV patients. The proposed model will ensure that such information becomes part of the package of HIV/AIDS information disseminated to young people in Harare.

If "NO", why not?

SAFAIDS does not disseminate useful information such as nutrition, medical insurance, social relations and employment to HIV patients because it is not part of its agreement with its partner organisations. Considering that this is critical information to HIV/AIDS patients, SAFAIDS can persuade its partner organisations to include that option in their agreements.

Question 17. Which languages do you use to disseminate the above information to young HIV patients in Harare?

Most HIV/AIDS organisations in Harare use English, Shona and Ndebele to disseminate useful information such as nutrition, medical insurance, social relations and employment to young HIV patients. Data from the study and responses from the Focus Group Interviews also show that these were the preferred languages in disseminating HIV/AIDS information among the target group (See 5.2.5 and 5.6.1, Question 7. One organisation uses English only. HIV/AIDS organisations such as this one should be persuaded to use all the preferred languages when disseminating HIV/AIDS information for the benefit of young people in Harare.

The use of indigenous languages in disseminating HIV/AIDS information to the target group should not be underestimated. The proposed model will have to take this into consideration.

Question 18. What additional roles can social media play to improve the dissemination of HIV/AIDS information among the 18-24 age group in Harare?

Most organisations were of the view that social media can be used to correcting myths and superstitions about HIV/AIDS. SAFAIDS emphasised that it can influence behaviour change. NAC mentioned that social media can also play a counselling role. HIV/AIDS organisations have to train or impart counselling skills to some of their staff who are involved with disseminating HIV/AIDS information so that they will be able to assist the target group when the need arises. HIV/AIDS organisation must also partner with counsellors so that peer educators can be trained on how to convey HIV/AIDS information to young people or their peers. It also means that some of the information has to be edited by counsellors before it is disseminated to manage issues of stress among the target group and also to avoid fatal incidences as expressed by the NAC representatives.

HIV/AIDS organisations also emphasised the greater public awareness role that social media can play in the combat against HIV/AIDS. Social media have tremendous reach and influence among the target group who are the future leaders of tomorrow. Radio presenters, who already have skills to communicate with different age groups can be engaged in these HIV/AIDS awareness programmes for the target group in the fight to halt HIV/AIDS.

Question 19. Do you have anything else to add regarding the use of social media to disseminate HIV/AIDS to young people in Harare?

Most HIV/AIDS organisations are of the opinion that other methods of disseminating HIV/AIDS should be used to complement social media. The use of T-shirts, posters, pamphlets and the Internet were some of the methods HIV/AIDS organisations feel should be used to complement social media. NAC emphasised that social media should be used sparingly. It also has to be monitored so that it does not do harm to the young people aged 18-24 in Harare. This calls for proper systems for monitoring and evaluating the dissemination of HIV/AIDS information dissemination among the target group. The proposed model should have ways of monitoring and evaluating whether use of social media platforms in disseminating HIV/AIDS information among young people aged 18-24 in Harare is meeting the objectives of the programme.

The representative from The Zimbabwe Catholic Bishops Conference (ZCBC) emphasised that social media can be used at Youth Corners where activities like sharing HIV/AIDS information received can be done by peer educators. There is Internet access at Youth Corners and Peer Educators can receive HIV/AIDS information which they can share with their peers in a free environment. The proposed model will also consider using peer educators because they can freely share the HIV/AIDS information amongst themselves.

The representative from The Zimbabwe Catholic Bishops Conference (ZCBC) also mentioned that besides disseminating HIV/AIDS information, social media platforms could be used to disseminate and educate young people on sexually transmitted infections (STI). This is critical because having multiple sexual partners results in young people contacting STI and this may lead to them being infected with HIV/AIDS. Social marketing campaigns and programmes which combine extensive and effective peer education with mass media messages to raise awareness were some of the things social media could be used for.

5.7.6 Conclusion

Social media provides opportunities for HIV and AIDS dissemination among the young people as a significant number of young people in Harare can access social media. A few HIV/AIDS organisations felt that social media should be used sparingly and that there should be monitoring to minimise harm. Most representatives of HIV/AIDS organisations interviewed are in agreement that social media platforms have the potential to improve dissemination of HIV/AIDS information among young people aged 18-24 in Harare. Although some HIV/AIDS organisations are still skeptical about using social media in disseminating HIV/AIDS information among young people in Harare, the global and local implications of social media are real. Considering the power and relevance of the social media, it is essential that HIV/AIDS organisations in Harare understand the benefits social media platforms can offer in disseminating HIV/AIDS information among young people aged 18-24 in Harare.

CHAPTER 6

Proposal of a model for the dissemination of HIV/AIDS information to young people aged 18-24 in Harare.

6.1 Introduction

There is ample evidence in the literature of the potential dissemination of information roles that social media can play. Several models elaborate the distinctive roles that social media can fulfill in disseminating information about challenges related to HIV/AIDS. The main models are outlined and discussed in Chapter 2 (see 2.6.3), and this chapter will propose the most suitable model. It

will also formulate the appropriate roles for social media to improve the dissemination of HIV/AIDS to young people aged 18-24 in Harare.

6.2 Critique of main models for disseminating HIV/AIDS information

From the literature review, it is evident that a number of models for disseminating HIV/AIDS information via social media platforms are already in existence. Although there already are several models, they have certain shortcomings for the purposes of this investigation. These shortcomings will be identified and discussed in the sections below with specific reference to the data analysed in Chapter 5.

6.2.1 Educational Model (See 2.6.3.1)

Social media can and are being applied to both formal and informal education. Some authors argue that social networks and interactive media promote learning in institutional establishments, and that they should be used in formal education institutions. Some models incorporating these ideas emphasise the formal educational role of social media. Many researchers, policy makers and educators have and continue to advocate the use of education as a social vaccine to the HIV/AIDS pandemic (Klomsri, Greback & Tedre: 2013; Bull *et al*. 2008; Redecker *et al*. 2010 and Daka *et al.* 2017).

From interviews with organisations handling HIV/AIDS information in Harare, most disseminate HIV/AIDS information through social media and Information, Education and Communication (IEC) materials. The National AIDS Council of Zimbabwe also uses entertainment such as road shows, which is a type of informal education tool to disseminate HIV/AIDS information (See 5.4.2).

Chapter Five shows that in an educational model the language used to disseminate HIV/AIDS information can be a barrier. In most formal education

scenarios, English is used to communicate with young people receiving the information. The data collected and responses in this study show that young people also value receiving HIV/AIDS information in indigenous languages (See 5.2.5, 5.3.1, 5.4.5). It is therefore critical for organisations disseminating HIV/AIDS information to seriously consider using indigenous languages when designing programmes for disseminating HIV/AIDS information. The model in this study will propose including the indigenous languages of Ndebele, Shona and Venda when disseminating HIV/AIDS information to the target group. This will result in the majority of the target group in Harare receiving relevant and accurate HIV/AIDS information in their vernacular languages. It will also improve the effectiveness and success of organisational efforts disseminating HIV/AIDS information to this age group.

In informal educational models, social networks provide an avenue for low-cost and sustainable HIV prevention interventions that can be adapted and applied in different contexts. Social network interventions may be face to face or through social media. Members of social networks are trained to become peer educators who disseminate information to reduce risk among their social network members. Such models demonstrate the informal education role that social media can play (Latkin *et al.*, 2013).

The data in this study show that some young people in Harare still value sharing and receiving information from their peers, which is why 51 respondents (15.8 percent) had their peers as their main source (See 5.2.3). Data gathered from the organisations also support interpersonal communication as a more effective way of disseminating HIV/AIDS among young people in Harare. The National AIDS Council (NAC) uses interpersonal communication in schools through school programmes to disseminate HIV/AIDS information (See 5.4.2). The

NAC emphasised that different media should complement each other, arguing that certain things cannot be clarified on social media platforms (See 5.4.4 question 13). In such cases, the informal educational social network interventions model using peer educators appears suitable for disseminating HIV/AIDS information to the target group. Some organisations emphasised that the dissemination of flawed HIV/AIDS information via social network platforms can be fatal, and that it must be handled with care (See 5.4.4 question 15).

According to Stewart, (2005) peer education is self-empowering. Peer education helps students take responsibility for their own lives and assist with the improvement of the lives of others. Stewart (2005) asserts that peer educators may have an advantage in delivery of HIV/AIDS prevention and intervention information because some of their peers will feel more comfortable receiving sexuality-related information from them than from adults (Stewart, 2005).

In order to improve the informal educational face-to-face social network interventions model, it is important to design programmes that impart requisite skills to the peer educators aged 18-24, who access information on HIV/AIDS via social media. This will enable them to orally pass it on to their peers who are not so fortunate to receive this vital information online. The limitations of the education model that the data from this study reveal will have to be taken into account in a proposed model.

6.2.2 Community-Wide Dissemination Model (See 2.6.3.2)

This model emphasises the entire community and not just specific components such as the young people, who are the focus of this study. Community-wide dissemination models have proved to be essential to ensure the success of HIV/AIDS prevention and treatment programmes. This model is very effective

in non-urban areas. Through dissemination, rural communities can learn from the experiences of others to utilise promising strategies and social media in this instance have an informal sharing and educational role. In some of the organisations that were interviewed, HIV/AIDS information is disseminated through coordination of activities such as community sensitisation and workshops (See 5.4.2).

While this model allows young people to learn from the experiences of others, HIV/AIDS information dissemination in this case is targeting everyone and all ages. Some information may not appeal to or may not be relevant to the young people aged 18-24 (See 5.2.5, 5.3.4, Question 8). Implementing an HIV/AIDS community-wide dissemination model also requires extensive resources and careful planning, community buy-in, and commitment from partners. The implementers must also take cognizance of the HIV/AIDS stigma in the community and other community features.

Another limitation of the community-wide model is that it will have to take into consideration all ages, all languages, etc. of a particular community. The data from this study show that a more focused approach is needed, and that includes not just age group but language, and preferred social media among young people. The proposed model for disseminating HIV/AIDS information to young people in Harare will have to focus sharply on these special features.

There is therefore a need to design a model that ensures the repackaging of HIV/AIDS information that targets the very specific needs of young people aged 18-24 in Harare. The repackaging of HIV/AIDS information must for example be disseminated in English as well as Ndebele, Shona, Venda and relevant indigenous languages. The idioms and vocabulary or slang that young people use when communicating in these languages is a significant factor to

appeal to and suit this target group. English, Shona and Ndebele are used by most organisations handling HIV/AIDS information in Harare to disseminate useful information such as nutrition, medical insurance, social relations and employment to young HIV patients (See 5.2.5, 5.3.4, 5.4.2). In future, the model would have to consider disseminating the repackaged HIV/AIDS information in the 13 official languages that the Constitution of Zimbabwe recognises (See 5.2.5; 5.3.4; Question 8): response to Question 7). The data that shows up limitations of this model will have to be taken into account.

6.2.3 Mass Model (See 2.6.3.3)

Mass-media campaign models have been used in some countries for disseminating HIV/AIDS information. Given their enormous potential reach and cost-effectiveness, the mass media have been one of the main tools utilised to inform and/or educate about the dangers of the HIV/AIDS pandemic (Hutton *et al*., 2003; Hogan *et al*., 2005). In response to the growing HIV epidemic in Nigeria, the U.S. Agency for International Development (USAID) initiated the VISION Project, which aimed to increase the use of family planning, child survival, and HIV/AIDS services. The VISION Project used a mass media campaign that focused on reproductive health and HIV/AIDS prevention. Keating (2006) assessed to what extent exposure to the VISION Project translated into increased community awareness and prevention of HIV/AIDS through the sharing of information.

Despite the widespread utilisation of the mass media in HIV/AIDS prevention, little is known about the knowledge gap that exists in different people when mass media is used. In the case of this study, there may be knowledge gaps between individuals who had attained secondary and tertiary education (See 5.2.1). The model therefore proposes using the preferred languages, namely English, Shona, Ndebele and Venda in order to sharpen the level of clarity and

simplicity in expression and style. (See 5.2.5, 5.3.4, 5.4.2). This collaborates with the results from the interviews with organisations handling HIV/AIDS information in Harare. Most organisations interviewed use English, Shona and Ndebele when disseminating HIV/AIDS information in Harare.

Although mass media campaigns are effective in disseminating HIV/AIDS information, the model can be further improved by using social media platforms. Data collected showed that some young people in Harare still prefer accessing HIV/AIDS information via the radio. A proposed model would therefore need organisations disseminating HIV/AIDS information in Harare to collaborate with radio presenters (See 5.2.3).

For those young people without access to the Internet or to smart phones, question-and-answer sessions would be a good idea. Questions could be broadcasted and responses from young people with access to the Internet are sent via social media platforms to radio presenters. The radio presenters then give feedback via the radio, and in this way reach those young people with no access to social media (See 5.2.3).

In such an adapted model, there is HIV/AIDS information sharing among people of more or less the same age, which may be ideal. Young people are usually more open with each other and can freely express themselves when they communicate with radio presenters via social media. Radio presenters should also develop skills to effectively communicate the received HIV/AIDS information to the other young people with no access to social media. Radio presenters are trained to persuade listeners to express themselves without fear. The model for this study would therefore need HIV/AIDS organisations to collaborate and partner with radio presenters (See 5.2.3).

The data from this study show up some limitations of this model. The proposed model will have to take these limitations into account.

6.2.4 Internet HIV/AIDS Prevention Model (See 2.6.3.4)

Some HIV/AIDS prevention and treatment models use the Internet as a tool for disseminating HIV/AIDS information. Such models are used for special projects with national significance and they provide expert statistical information. The Internet sites are accessed by universities, government agencies, large computer networks, and foreign countries. An example of this model is "The Measurement Group Web" (http://themeasurementgroup.com/) site which has attracted the attention of many users throughout the world in its goal of disseminating new information about innovative models of HIV services to a wide audience. Thus, the models have shifted from a focus on urban to rural to global.

While this model is excellent in that current HIV/AIDS information is made available on the website, some young people may not have access to the Internet or be aware of its existence. Therefore the collaboration of radio and internet sites would be more effective in disseminating HIV/AIDS information to the target group is recommended as shown by 45.9 percent of young people in Harare preferred to access information about HIV/AIDS through the radio (See 5.2.3; Question 14).

Again, the data from this study show up some limitations of this model. The proposed model will have to take these limitations into account.

6.2.5 Use of Animals in Research Models (See 2.6.3.5)

Evans and Silvestri (2013) state that a number of key advances in HIV/AIDS research have been made possible by the extensive use of animal models, and in particular the non-human primate models of simian immunodeficiency virus

(SIV) and simian-human immunodeficiency virus (SHIV) infection of various monkey species. The key advantages of these models include the ability to control for parameters that are virtually impossible to assess in humans. Social media has the potential to expand its research role, as this model suggests.

Such models should continue to be used in the advancement of HIV/AIDS research. Results from this research under the heading 'Advances in HIV/AIDS research' should then be disseminated to young people aged 18-24 via social media platforms like WhatsApp, Facebook and Twitter which proved to be preferred platforms for accessing and disseminating HIV/AIDS information among the target group (See 5.2.3; 5.2.4; 5.2.5; 5.3.4, 5.4.4). By so doing young people in Harare are therefore kept abreast of research developments in HIV/AIDS.

Most organisations interviewed expressed that social media platforms are efficient and excellent tools for disseminating HIV/AIDS to young people because there is instant communication. Most organisations mentioned that Facebook, Twitter and WhatsApp are very good tools in terms of quick dissemination of HIV/AIDS information to a wide population. The organisations also expressed that the advantage is that young people like these media (See 5.4.3).

The data from this study show up some limitations of this model. The proposed model will have to take these limitations into account.

6.2.6 Marketing Model (See 2.6.3.6)

Social media can also play marketing roles. Social marketing strategies have been developed to target people on a national scale as well as at local and

regional levels. Text messaging, mobile phones, blogs, as well as print and other media are other dissemination vehicles which can be used for social marketing interventions for the prevention of HIV/AIDS among young people in Harare.

Social media has been used in HIV/AIDS marketing, but the challenge is that, communication is mostly in English. As a result, some young people with a poor understanding of the English language could misinterpret or misunderstand the critical HIV/AIDS information. The data in Chapter 5 show that the majority prefer to access information on HIV/AIDS in Shona. Some of the young people also prefer using Ndebele and Venda, which are indigenous languages in Zimbabwe (See 5.2.5). In the Focus Group Discussions, respondents were also of the view that anything usually written in local languages attracts attention more readily (See 5.3.1).

Social marketing strategies for disseminating HIV/AIDS information among young people in Harare can therefore be improved by including the indigenous languages, namely Ndebele, Shona and Venda, which can result in more effective dissemination to the majority of young people in Harare.

The data from this study show up some limitations of this model. The proposed model will have to take these limitations into account.

6.3 Proposed Model for the Harare HIV/AIDS Information Dissemination Programme for Young People (HAIDYP)

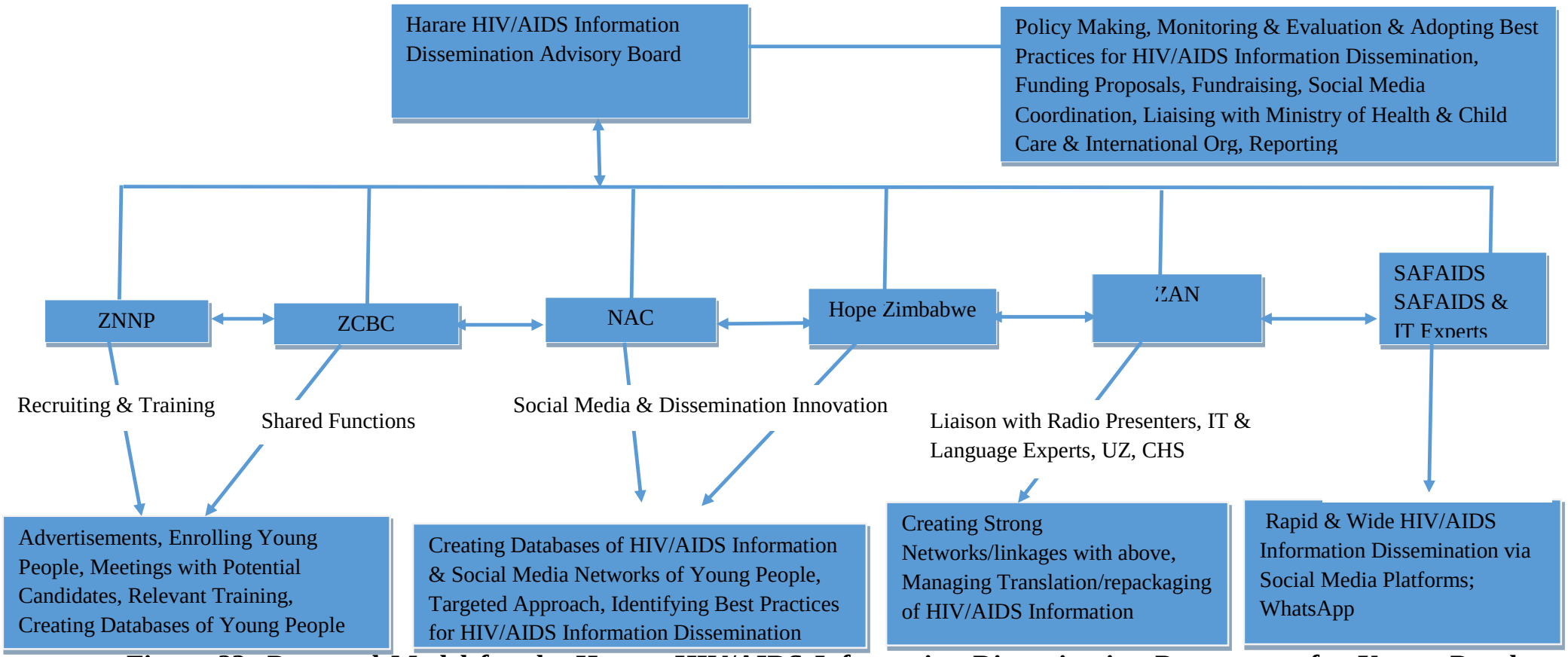

Figure 23: Proposed Model for the Harare HIV/AIDS Information Dissemination Programme for Young People (HAIDYP)

6.3.1 Introduction to Proposed Model

Without a suitable dissemination model that addresses appropriate awareness programmes and roles for social media, young people aged 18-24 in Harare will not receive relevant and accurate HIV/AIDS information. The proposed model draws on the HIV/AIDS dissemination models outlined in Chapter 2:2.6.3. More specifically it uses their strengths, as outlined in sections 6.2.1; 6.2.2; 6.2.3; 6.2.4; 6.2.5 and 6.2.6.

Currently there is lack of coordination among the organisations that disseminate HIV/AIDS information to young people aged 18-24 in Harare. Each organisation disseminating HIV/AIDS information in Harare does not know what the other organisations are doing (See 5.4.1). In order to improve the situation there is an urgent need to coordinate the activities of these organisations. The proposed model should therefore include the following features, which are listed below and discussed separately in the ensuing subsections:

1. The Harare HIV/AIDS Information Dissemination Advisory Board should oversee the development of policies and implementation of programmes for HIV/AIDS information dissemination to young people aged 18-24 in Harare;
2. The Harare HIV/AIDS information Dissemination Advisory Board should be made up of a representative from each HIV/AIDS organisation. The Members will constitute an Advisory Board with a rotating Chairperson. The Chairperson will also be the liaison person between The Harare HIV/AIDS Information Dissemination Advisory Board with other relevant national organisations and international organisations such as USAID that are involved in supporting HIV/AIDS activities in

developing countries. The Harare HIV/AIDS Information Dissemination Coordinating Advisory Board, through its Chairperson, will report improvements on HIV/AIDS dissemination to the target group to the Zimbabwe Ministry of Health and Child Care through the Director responsible for HIV/AIDS activities in the Ministry;

3. Each HIV/AIDS organisation will be responsible for one or more aspect of HIV/AIDS information dissemination. For example, recruiting young people, meetings with potential candidates and providing training identified by the constituent organisations as relevant to improving dissemination, collaborating with radio presenters on dissemination of HIV/AIDS information using the preferred languages, which are English, Ndebele, Shona, and Venda. The different HIV/AIDS organisations will supply relevant information for their different aspects to The Harare HIV/AIDS Information Dissemination Advisory Board, all with the aim of improving dissemination of HIV/AIDS information to the target group;

4. The Harare HIV/AIDS Information Dissemination Advisory Board will have an oversight function of HIV/AIDS information dissemination to young people in Harare. Members of The Harare HIV/AIDS Information Dissemination Advisory Board will be responsible for activities such as monitoring and evaluation, policy making, marketing, fundraising and funding proposals.

   Members of the Advisory Board will meet periodically to review aspects being handled by the different HIV/AIDS organisations such as recruiting young people, providing training identified by the constituent organisations as relevant to improving dissemination, liaison with radio presenters, university teaching hospitals, libraries, language and IT experts. The agenda of the annual review meetings will be compiled in

collaboration with the constituent organisations.

The Harare HIV/AIDS Information Dissemination Advisory Board annual review meetings will assist in ensuring that focus on meeting the needs and improving HIV/AIDS information dissemination to the target group is not lost.

6.3.2 Assigned tasks and responsibilities in the Proposed Model

The six HIV/AIDS organisations in Harare will have assigned tasks and responsibilities. This will ensure that each organisation is accountable for its tasks. The assigned tasks can be renegotiated over time or reviewed at regular intervals, thereby making it possible for each organisation to become experienced in all the tasks and responsibilities. This is good for the continuity of the HIV/AIDS dissemination programme to the target group.

6.3.2.1 The Harare HIV/AIDS Information Dissemination Advisory Board

The Harare HIV/AIDS Information Dissemination Advisory Board will be tasked to oversee the development of policies and implementation of programmes for HIV/AIDS information dissemination to young people aged 18-24 in Harare.

Members of The Harare HIV/AIDS Information Dissemination Advisory Board will also be responsible for activities such as monitoring and evaluation, marketing, fundraising, funding proposals, liaising with national and international organisations which support HIV/AIDS activities such as USAID and reporting to the Zimbabwe Ministry of Health and Child Care on whether there is improvement on HIV/AIDS infections among the target group.

Members of the Advisory Board will meet periodically to review aspects being handled by the different HIV/AIDS organisations. The Harare HIV/AIDS Information Dissemination Advisory Board annual review meetings will assist in ensuring that focus on meeting the needs and improving HIV/AIDS information dissemination to the target group is not lost.

Members of the Harare HIV/AIDS Information Dissemination Advisory Board will have an oversight of HIV/AIDS information dissemination to young people in Harare. This will be the steering committee. The Advisory Board will set the vision, mission and objectives for the Harare HIV/AIDS Information Dissemination Advisory Board in relation to the HIV/AIDS information dissemination programme. This is the decision making committee for effective implementation of the proposed model. The Harare HIV/AIDS Information Dissemination Advisory Board will develop policies before the HIV/AIDS dissemination programme is implemented. Developing policies will help the Advisory Board to evaluate possible options and then select those that are best suited for the HIV/AIDS dissemination programme for the young people aged 18-24 in Harare.

Policies and procedures are critical because they will provide clarity about the assigned tasks to HIV/AIDS organisations. This will ensure consistency in the manner that the HIV/AIDS dissemination programme is run, resulting in better quality HIV/AIDS dissemination for the target group. Policies and procedures will also assist The Harare HIV/AIDS Information Dissemination Advisory Board when dealing with accountability issues or activities that are of critical importance and have serious consequences for the HIV/AIDS dissemination programme. This will improve the HIV/AIDS dissemination to the target group.

The Harare HIV/AIDS Information Dissemination Advisory Board has to provide an effective policy for the HIV/AIDS organisations to enable them to execute their assigned tasks. The Social Media HIV/AIDS Information Dissemination Policy is important because it will help reinforce and clarify the standards expected of the HIV/AIDS organisations regarding assigned tasks. The policy will be clear on the responsibilities of The Harare HIV/AIDS Information Dissemination Advisory Board and the assigned tasks for the HIV/AIDS organisations (See 6.3, 6.3.1, 6.3.2.3). The policy and procedures will also provide clarity to the organisations dealing with HIV/AIDS information because accountability issues or activities are of critical importance to the HIV/AIDS dissemination programme. This will improve the dissemination of HIV/AIDS information to the target group as policies will define what is acceptable and unacceptable in the proposed model.

The Harare HIV/AIDS Information Dissemination Advisory Board should have a clear statement of purpose in implementing the HIV/AIDS dissemination programme. This includes being clear of what is to be accomplished through the implementation of the programme and what each HIV/AIDS organisation is responsible for. Periodic reviews will lead to adjusting the purpose in line with changing circumstances and developments.

The Harare HIV/AIDS Information Dissemination Advisory Board will also oversee and be responsible for ensuring that tasks assigned to the six HIV/AIDS organisations are carried out. The six HIV/AIDS organisations are: Hope Zimbabwe; National AIDS Council of Zimbabwe (NAC); Zimbabwe AIDS Network (ZAN); Zimbabwe National Network for People Living with HIV/AIDS (ZNNP); Southern African HIV *and AIDS* Information

Dissemination Service

(SAFAIDS); and the Zimbabwe Catholic Bishops' Conference (ZCBC) HIV and AIDS Desk. The tasks in the first two boxes in the proposed model will be shared tasks because there are many activities to be achieved at the setting up the proposed HIV/AIDS information dissemination model. Assignment of tasks will be based on the strengths of the HIV/AIDS organisations from the information available from the interviews with the various organisations, and information from their websites (See 2.5).

The Harare HIV/AIDS Information Dissemination Advisory Board will be responsible for ensuring that the following assigned tasks are executed:

- Enrolling Young People aged 18-24 into the programme, creating databases of the target group, holding meetings and providing training identified by the constituent organisations as relevant to improving dissemination;
- Creating databases of HIV/AIDS Information and social media networks of young people, formulating a targeted approach in HIV/AIDS information dissemination, and identifying best practices for HIV/AIDS Information Dissemination to the target group;
- Creating strong networks/linkages with University Teaching Hospitals and Libraries, radio presenters, IT and Language Experts, Teaching Hospitals, managing translation and repackaging of HIV/AIDS Information;
- Rapid and wide HIV/AIDS information dissemination via social media platforms.

The six HIV/AIDS organisations will constantly communicate needed information to one another in order to improve the HIV/AIDS dissemination

among young people aged 18-24 in Harare. One of the most important factors in the proposed model's success is that the Harare HIV/AIDS Information Dissemination Advisory Board and the HIV/AIDS organisations should share information at all stages of the model design, planning, and implementation. This ensures that the policies are developed and implemented, and programmes are run in a coordinated, and tightly linked way.

Because of the number of assigned tasks and the amount of HIV/AIDS information to be disseminated, it is necessary to have this Advisory Board to ensure that the tasks assigned to the various HIV/AIDS organisations are executed. This advisory dimension is crucially missing among the HIV/AIDS organisations in Harare. The proposed model will have The Harare HIV/AIDS Information Dissemination Advisory Board to cover this gap.

The Advisory Board will be responsible for ensuring that the programme is adequately resourced through partnering with potential funders such as The Bill and Melinda Gates and USAID, liaising with international HIV/AIDS organisation as well as the Zimbabwe Ministry of Health and Child Care as well as ensuring that dissemination of HIV/AIDS information through social media platforms is effected among young people aged 18-24 years in Harare. The Harare HIV/AIDS Information Dissemination Advisory Board has a responsibility to ensure that HIV/AIDS dissemination among the target group improves and is effective.

HIV/AIDS Information Dissemination in Harare is currently not coordinated. As a result, there is no monitoring and evaluation of the dissemination tasks/activities in the various HIV/AIDS organisations to measure whether the dissemination of HIV/AIDS information in Harare has been relevant and

effective. The Advisory Board is also responsible for quality assurance. There also has to be monitoring and evaluation of the HIV/AIDS information dissemination programme for the target group. Monitoring will provide a systematic process to gather information on whether there is improvement in the dissemination of HIV/AIDS information to the target group using the proposed model.

Monitoring and Evaluation (M&E) are important for the Advisory Board to assess that the proposed model is achieving set targets and also identifying the most valuable and efficient use of resources. Monitoring and evaluation is therefore critical for this unit because it will provide the necessary data to guide strategic planning and to allocate and re-allocate resources for the HIV/AIDS dissemination programme for young people aged 18-24 in Harare in better ways.

There is no mechanism in the current models within the HIV/AIDS organisation of communicating HIV/AIDS patterns among the target group to the Zimbabwe Ministry of Health and Child Care. In the absence of a most suitable model with a mechanism of ensuring that information is communicated to the parent Ministry, information on improvement of HIV/AIDS dissemination and statistics on infections among the target group may not be made available for the public to see and HIV/AIDS organisations may fail to be recognised and appreciated for the good work they might be doing.

In the proposed model, the Chairperson of the Harare HIV/AIDS Information Dissemination Advisory Board will submit reports on improvements in HIV/AIDS patterns among the target group to the Zimbabwe Ministry of Health and Child Care through the Director responsible for HIV/AIDS activities in the

Ministry. From the literature, HIV primarily affects those in their most productive years; a third of new infections are among young people ages 15-24 (See 1.1). The Zimbabwe Ministry of Health and Child Care may find it necessary to include a line item in its budget on dissemination of HIV/AIDS information among young people aged 18-24 in Harare. The Ministry may also be in a better position to negotiate with organisations such as The World Health Organisation (WHO) and the Joint United Nations Programme on HIV and AIDS (UNAIDS) when it comes to funding opportunities in the dissemination of HIV/AIDS to the target group.

Currently organisations disseminating HIV/AIDS information in Harare do not meet to review progress on the improvement of HIV/AIDS infections among the target group. The proposed model recommends that the Members of the Harare HIV/AIDS Information Dissemination Advisory Board will meet periodically to review aspects being handled by the different HIV/AIDS organisations. This will assist in the unit keeping track of what is happening with the assigned tasks in the six HIV/AIDS organisations. The areas of accountability for each HIV/AIDS organisation on the assigned tasks within the proposed model will be discussed in these meetings and progress reports presented by representatives from the organisations. Periodic review meetings are critical for the Advisory Board because it gives the members the opportunity to clarify each HIV/AIDS organisation's role and to establish what results the Advisory Board expects from each of the HIV/AIDS organisations, thereby, eliminating the possibility of confusion among the organisations. The periodic review meetings should focus on ensuring improvement of HIV/AIDS information dissemination to the young people aged 18-24 in Harare.

In the annual review meetings, the Chairperson of the Advisory Board will

provide leadership in the review process to ensure the committee is meeting its obligations and moving in the right direction as far as dissemination of HIV/AIDS information to the target group is concerned. The Chairman will present a report at the annual review meeting on the state of the HIV/AIDS Information Dissemination Coordinating Unit. Discussions on whether the goals of improving HIV/AIDS dissemination to young people aged 18-24 in Harare during the year were met will be part of the review meeting. If not, members of the HIV/AIDS Information Dissemination Coordinating Unit will have to suggest and implement different strategies. The impact of the proposed model in improving the dissemination of HIV/AIDS information to the target group will also be evaluated and best practices identified may be adopted.

6.3.2.2 The Harare HIV/AIDS information Dissemination Advisory Structure

The Harare HIV/AIDS information Dissemination Advisory Board should be made up of a representative from each HIV/AIDS organisation. The representatives will constitute an Advisory Board with a rotating Chairperson. The Chairperson will also be the liaison person between The Harare HIV/AIDS Information Dissemination Advisory Board and other relevant national and international organisations (such as USAID) that are involved in supporting HIV/AIDS activities in developing countries. The Harare HIV/AIDS Information Dissemination Advisory Board, through its Chairperson will report improvements and challenges on HIV/AIDS dissemination to the target group to the Zimbabwe Ministry of Health and Child Care - through the Director responsible for HIV/AIDS activities in the Ministry.

Members of The Harare HIV/AIDS Information Advisory Board will come from the six HIV/AIDS organisations. These will preferably be representatives who were interviewed when the data for this study was collected, and who are

experts with HIV/AIDS information dissemination issues in their organisations. In the event that these interviewees are not available, then someone from the HIV/AIDS dissemination team in a particular organisation should be elected to be a member of the HIV/AIDS Advisory Board. Members of the Harare HIV/AIDS Information Dissemination Advisory Board will serve two-year terms, with possible appointment to a second term for a maximum of four years of consecutive service.

Members of the Advisory Board who have completed the maximum two terms of consecutive service may be invited back to the Advisory Board for additional service, if doing so would benefit the work of the Harare HIV/AIDS Information Dissemination Advisory Board. The representatives must be committed and dedicated members to serve in the HIV/AIDS Information Dissemination Advisory Board. The representatives will constitute the Advisory Board, and will be responsible for electing a Chairperson.

In order for the HIV/AIDS Advisory Board to remain vibrant and effective, members will constitute a Committee with a rotating Chairperson. The Chairperson's role, in partnership with the Committee members will be to oversee the strategic direction and operations of the Advisory Board. Key responsibilities for the Chairperson include providing leadership, supporting the development of a strategic plan and ensuring the committee's actions align with its mission, vision, values and objectives for the dissemination of HIV/AIDS information to the target group.

The term of office for the Chairperson will be two years. It means that every two years, someone with new energy will become the Chairperson. The two-year period will also give the sitting Chairperson an opportunity to implement some of the issues raised in review meetings concerning HIV/AIDS information

dissemination programme. These may have been embarked on because of the feedback in the periodic or annual review meetings. The two-year period means that there will not be any radical change of direction that may be detrimental to the proposed model. The Advisory Board will also benefit from consistency and stability in the management of the HIV/AIDS Information Dissemination Advisory Board. Rotating the Chairperson of the HIV/AIDS Information Dissemination Advisory Board has the advantage of bringing fresh thinking, new ideas, and making a difference in the Advisory Board.

In the proposed model, the Chairperson the Harare HIV/AIDS Information Dissemination Advisory Board will take on the role of media spokesperson. The Chairperson will also be the liaison person between the Harare HIV/AIDS Information Dissemination Advisory Board and national and international organisations involved with HIV/AIDS issues as well as promoting the committee's activities or achievements to other community groups, government and non-government organisations. The Chairperson can enter into partnerships or funding negotiations with other organisations as required by the members of the Harare HIV/AIDS Information Dissemination Advisory Board.

The above is lacking in the current setup in which organisations are negotiating for funding separately. There is strength in numbers, and a funding proposal put together collectively by the HIV/AIDS organisations focusing on improving HIV/AIDS dissemination for the target group will be more effective and hard to ignore. The Advisory Board can approach funding organisations such as SIDA and CDC Zimbabwe with a funding proposal to set up structures to kick start the HIV/AIDS dissemination model. These will be mainly the Advisory Board and the six organisations with the assigned tasks. Funding organisations will also see that there is a coordinated approach to the HIV/AIDS dissemination

programme for the target group.

The representatives from the six HIV/AIDS organisations will be involved in the development and delivery of an effective HIV/AIDS information dissemination programme and act as mediators between their organisations and the Advisory Board through interaction with the Chairperson of The Advisory Board. The members should also offer the opportunity for group problem solving, for example clarification in language matters, especially indigenous languages where one word may mean different things (See 5.3.4; Question 7).

Data collected from the study show that the current organisations disseminating HIV/AIDS information in Harare are doing so in isolation from each other and not speaking as a collective. There is no dedicated Committee that regularly meets to discuss HIV/AIDS dissemination in Harare (See 5.4.1). In the proposed model, the representatives from each HIV/AIDS organisation are the liaison people between the HIV/AIDS Advisory Board and their various organisations. The members are responsible for reporting back on HIV/AIDS activities as per their assigned tasks in the various organisations during periodic and annual review meetings in order for the HIV/AIDS Advisory Board not to lose focus. Feedback and accountability are key features of the proposed model so as to improve dissemination of HIV/AIDS information to the target group (See 5.4.2).

6.3.2.3 Each HIV/AIDS organisation will be responsible for one or more aspect of HIV/AIDS information dissemination.

Each HIV/AIDS organisation will be responsible for one or more aspect of HIV/AIDS information dissemination; for example, recruiting young people, meetings with potential candidates and providing training identified by the

constituent organisations as relevant to improving dissemination, collaborating with radio presenters on dissemination of HIV/AIDS information using the preferred languages, which are English, Ndebele, Shona, and Venda. The different HIV/AIDS organisations will supply relevant information for their different aspects to The Harare HIV/AIDS Information Dissemination Advisory Board, all with the aim of improving dissemination of HIV/AIDS information to the target group.

Data from the study revealed that the main advantage of accessing HIV/AIDS information via social media was that the target group is able to receive relevant and real time information, and make appropriate and correct decisions on time. One participant narrated that,

"My wish is to be able to get HIV/AIDS information from an authorised organisation such as the Zimbabwe National AIDS Council, or the various HIV/AIDS clinics on testing of HIV/AIDS, treatment options, booking and appointment with a counsellor, information on centres that provide male circumcision, etc." (See 5.3.3)

The proposed model is bringing on board the six HIV/AIDS organisations interviewed. These are organisations that have been in existence and disseminating HIV/AIDS information for more than fifteen years (See 5.4.1; Question 1). The six HIV/AIDS organisations will be assigned different tasks as per the proposed model. Below is a breakdown of the tasks and responsibilities for each HIV/AIDS organisation.

6.3.2.3.1 Recruiting young people, meeting with potential candidates and training identified by the Advisory Board

The Zimbabwe National Network for People Living with HIV/AIDS (ZNNP+)

and the Zimbabwe Catholic Bishops' Conference (ZCBC) will share the portfolio dealing with advertisements, enrolling young people, meetings and training sessions with potential candidates and Peer Educators, and creating membership databases of young people. ZNNP+ has been in existence since 1992, and coordinates the interests and activities of PLHIV throughout Zimbabwe. It has the experience of dealing with people who are HIV positive, and is best suited to be the first to have meetings with potential candidates because of their skills to communicate and persuade young people to join the programme. The recruiting training responsibility suits them because they have always been dealing with counselling issues. ZCBC, as a small organisation, has been paired with ZNNP+. This provides the environment for ZCBC to know whom to immediately consult if there is a challenge, without having to go to all the other HIV/AIDS organisations. ZCBC became involved in AIDS Education in the early 1990s through its influence on the Ministry of Education's Action Programme. ZCBC's major goal in this programme is to assist the young people of Zimbabwe to grow up in an AIDS-free generation (See 2.5). ZCBC has been dealing with young people and may already have some of the young people on their records, making it easy to include them in the database for the HIV/AIDS dissemination programme. ZCBC has also been providing peer-to-peer HIV/AIDS information dissemination services. It becomes ideal to pair it with ZNNP+ which has training in its portifolio. The two organisations will assist each other when it comes to training issues, especially with Peer Educators (See 2.5).

ZCBC will be responsible for advertisements, enrolling young people and creating membership databases of young people aged 18-24 in Harare. Some of the organisations disseminating HIV/AIDS in Harare currently do not have membership databases. ZCBC should make sure the membership data is up to

date. Such things like address changes and other changes should be processed regularly so that the data is clean and usable. This is particularly important before any HIV/AIDS information is disseminated. It is also useful for answering member's queries and to get management information for reports.

Creating membership databases creates a channel/platform where the unit can keep in contact with its members and relevant HIV/AIDS information can quickly be disseminated to members. It is also easy to request and get feedback from participants if there are membership databases. Feedback is critical for the smooth running of the HIV/AIDS dissemination programme.

ZNNP+ will be responsible for holding meetings with the potential members so that they have an understanding of how the programme will be implemented and run. ZNNP+ will also be responsible for providing training identified by the Advisory Board as relevant to improving dissemination. Peer Educators will also require training in counselling so that they will know how to disseminate the HIV/AIDS information to their peers without causing stress; HIV/AIDS information disseminated can be fatal if not well handled (See 5.4.4; Question 15). Young people still value sharing information with their peers which is shown by 51 respondents (15.8 percent) having their peers as their main source (See Chapter 5.2.3). Data gathered from the HIV/AIDS organisations also support interpersonal communication as a more effective way of disseminating HIV/AIDS among young people in Harare (See 5.4.2).

Data from this study revealed limitations of the informal education model. It is important for ZNPP+ to design programmes that impart requisite skills to the peer educators aged 18-24, who access information on HIV/AIDS via social media. This will enable them to pass it on orally to their peers who are not so fortunate to receive this vital information online (See 6.2.1).

ZNPP+ will ensure that the HIV/AIDS information from the Internet shared via social media will also be disseminated by word of mouth to young people who do not have access to the Internet or smart phones through peer-to-peer communication. The target group can freely share the HIV/AIDS information amongst themselves. Disseminating HIV/AIDS information through peers has the advantage of young people understanding more about HIV/AIDS because they are free to raise any questions regarding the subject, which may be difficult to do with people not of their age (See 5.4.2, Question 5 and 7, 6.2.3).

It is also the responsibility of ZNPP+ to ensure that the HIV/AIDS information from the Internet is disseminated through peers via short messaging system for the benefit of the target group with no phones suitable to access information via social media platforms. This is to cater for the small percentage of young people who accessed HIV/AIDS information through short messaging system (See 5.2.3).

The six different HIV/AIDS information organisations will constantly provide information to the Advisory Board through their representatives in the Committee. The representatives will constantly update their relevant organisations on tasks assigned to them as well as any information relevant to improvement of the HIV/AIDS dissemination programme from the Advisory Board to their organisation. Constant communication between the six different HIV/AIDS information organisations and the HIV/AIDS Advisory Board will ensure that dissemination of HIV/AIDS information among the target group is on track and that the programme remains efficient and focused. This will indeed improve the dissemination of HIV/AIDS information among young people aged 18-24 in Harare.

6.3.2.3.2 Creating Databases of HIV/AIDS Information and Social Media Networks for Young People, Targeted Approach, Identifying Best

Practices for HIV/AIDS Information Dissemination

The National AIDS Council (NAC) and Hope Zimbabwe will be responsible for the Social Media and Dissemination Innovation portfolio, and Hope Zimbabwe will be in charge of formulating a targeted approach in the dissemination of HIV/AIDS information. Hope Zimbabwe is a small/young organisation that was established in 1992. The Harare Branch was established in 2002, hence it is essential to partner with NAC which has several years of experience of handling HIV/AIDS issues at a national level.

Hope Harare is engaged in different activities such as training of workplace and community based peer educators, positive living advocates, formation of youths and community clubs, formation of support groups, health campaigns, Commercial Sex workers and the Out of school youth as Hope activists to do their part in HIV/AIDS information dissemination (Hope Zimbabwe). The Hope Harare branch has the best Harare experience and can therefore sharpen the focus on the targeted group for this study (See 2.5).

NAC will be responsible for creating databases of HIV/AIDS information and social media networks as well as identifying best practices for HIV/AIDS information dissemination among the target group. NAC will also be responsible for continuing to update HIV/AIDS information databases as and when they receive updated information from the University of Zimbabwe, College of Health Sciences' teaching hospital and its Library. NAC and Hope Zimbabwe will have constant access to the internet to ensure up to date HIV/AIDS information is disseminated to young people via social media platforms. One of the most important factors in the proposed model's success is for the NAC and Hope Zimbabwe organisations to constantly access reputable

Internet websites used for HIV/AIDS research so that up to date and reliable/validated information on HIV/AIDS is disseminated to the young people in Harare (See 6.2.4). NAC and Hope Zimbabwe will repackage research from The University of Zimbabwe College of Health Sciences, which is carrying out research on HIV/AIDS for accessibility to young people (See 6.2.5). In addition, active case management with the University of Zimbabwe, College of Health Sciences is crucial for NAC and Hope Zimbabwe, not only to ensure that young people receive needed updated HIV/AIDS information and services, but also to ensure that the HIV/AIDS information disseminated to young people who are already infected is accurate and relevant.

6.3.2.3.3 Creating strong networks/linkages, managing translation/repackaging of HIV/AIDS information, and collaborating with radio presenters on dissemination of HIV/AIDS information using the preferred languages of English, Ndebele, Shona and Venda;

ZAN will be in charge of creating strong networks/linkages with radio presenters, IT and language experts, the University of Zimbabwe, College of Health Sciences and the University of Zimbabwe, College of Health Sciences Library. ZAN was founded in 1992. The mission of ZAN is "To strengthen community systems to contribute to national HIV, TB, and other Non-Communicable Diseases responses ensuring that the right to health is realised through an inclusive credible and representative national network of HIV and Health programming organisations operate at all levels" (Zimbabwe AIDS Network 2016).

The most critical function of Zimbabwe AIDS Network is information sharing and networking. ZAN has an information platform for the sharing of information and resources amongst the membership, including regularly sending out information on best practices as well as partnerships and funding opportunities that can benefit ZAN's membership (See 2.8.4)

ZAN thus has the experience of handling HIV/AIDS issues and producing results at national level and has structures that have been handling HIV/AIDS matters at the lowest level. This will make ZAN the suitable organisation to handle translation and repackaging issues, in liaison with language experts. It is therefore capable of executing the assigned tasks. ZAN will be responsible for creating strong networks/linkages with IT and language experts, the University of Zimbabwe College of Health Sciences and University of Zimbabwe, College

of Health Sciences Library, and managing translation/repackaging of HIV/AIDS Information for the target group. Literature shows that some HIV/AIDS prevention and treatment models use the Internet as a tool for disseminating HIV/AIDS information (See 2.6.3.4**)**. Such models are used for special projects with national significance and they provide expert statistical information. Universities, governmental agencies and large computer networks access these Internet sites. It is therefore critical for ZAN to establish strong links with University of Zimbabwe, College of Health Sciences and that its Library has access to these Internet sites. Linking with these ensures that ZAN will have updated HIV/AIDS information from ongoing research. Some of the information will however be disseminated through radio presenters and ZAN also has a responsibility to establish strong links with these.

Data collected showed that some young people in Harare still prefer receiving HIV/AIDS information via the radio (See 5.2.3). A proposed model would therefore need ZAN to collaborate with radio presenters to broadcast question and answer sessions for those young people with no smart phones and without access to the Internet and to social media (See 5.2.3; 6.2.3). ZAN will also be responsible for linking with language and information technology experts to ensure that the HIV/AIDS information is broadcasted in the most understood and preferred languages, which are English, Ndebele, Shona and Venda in order to achieve clarity and simplicity in expression and style (See 5.2.5; 5.3.4 Question 8; 5.4.5 Question 17 and 6.2.2).

6.3.2.3.4 Rapid and wide HIV/AIDS information dissemination via social media platforms

It is proposed that the Southern African HIV *and AIDS* Information Dissemination Service (SAFAIDS) will be responsible for using the preferred social media platforms for rapid and wide HIV/AIDS information dissemination. This will be in conjunction with IT experts. SAFAIDS is strong in the dissemination of HIV/AIDS information, not only in Zimbabwe but in several African countries. Their website is testimony to that. SAFAIDS is well established in several African countries.

Given their enormous potential reach and cost effectiveness, SAfAIDS will guarantee the use of social media platforms in the proposed model for the rapid and wide dissemination of HIV/AIDS information. The proposed model will disseminate the HIV/AIDS information via the WhatsApp platform, which was the most preferred social media platform by the target group. Facebook, and Twitter can be adopted where necessary. These were the top three preferred social media platforms from the data (See 5.2.3; 5.2.4; 5.2.5; 5.3.3).

Designing a service which uses the WhatsApp social media platform to disseminate HIV/AIDS information in English, Ndebele, Shona and Venda among young people in Harare has the following added benefits:

- The ability to widely receive and share information about HIV/AIDS amongst people aged 18-24.
- It is the cheapest online social media platform for young people in Zimbabwe (See 5.3.3).
- Young people appreciate the ease and convenience of accessing information related to HIV care, treatment, and prevention through the WhatsApp social media platform (See Chapter 5.2.5).
- Organisations can partner with radio presenters for the benefit of young people with no access to the Internet or mobile phones capable of

accessing online networks. This could be achieved through question and answer sessions; with young people aged 18-24 having access to WhatsApp providing responses to radio presenters. The radio personalities then give feedback through the radio, thereby reaching those young people with no access to social media. (See 5.2.3).

- Unlike Facebook, the WhatsApp platform presents the opportunity for being anonymous as well as having messages encrypted. Studies reported the importance of anonymity in social media use to communicate about HIV largely due to the stigma associated with HIV. This model will not require disclosure of identity on the WhatsApp platform. Only mobile numbers will be used without including the names of the young people on their profiles. Young people also do not have to provide their pictures on the profiles. This also presents an opportunity for young people aged 18-24 to freely discuss HIV/AIDS issues. Another advantage of adopting the WhatsApp model is that it will promote dynamic real time chatting among different young people in the same age groups, 18-24, instead of sometimes passively following people one barely knows on Facebook (See 5.2.5).
- Young people have the opportunity to receive information from experts in the comfort of their homes, making it less expensive because there is no need for them to travel to the service provider.

The globalisation of HIV and its presence in more geographically distant and underserved communities continues to increase. The WhatsApp social media platform therefore provides the best opportunity according to the data to extend the reach of HIV awareness and prevention efforts to young people aged 18-24 in Harare. Currently lacking, however, is a suitable and appropriate model using

the WhatsApp social media platform to disseminate HIV/AIDS information to the target group. This can be narrowed by designing a model which uses WhatsApp social media platform to disseminate HIV/AIDS information and this will assist in improving the dissemination of HIV/AIDS information for the benefit of young people in Harare. This model can inform critical next steps to ensure appropriate dissemination of HIV/AIDS information using the WhatsApp social media platform to reach and engage the target group in Harare. SAFAIDS is the most suitable HIV/AIDS organisation to deliver on these needs that the data have identified.

6.4 Conclusion

It is abundantly clear that an HIV/AIDS dissemination model with an HIV/AIDS Information Dissemination Coordinating Unit to oversee HIV/AIDS information dissemination via social media platforms to young people aged 18-24 in Harare will improve the dissemination of HIV/AIDS information to the target group. If this model is adopted by organisations currently disseminating HIV/AIDS information in Harare, there is going to be a dramatic change in the manner in which HIV/AIDS information is disseminated to young people aged 18-24 in Harare. Currently there is no appropriate model for HIV/AIDS organisations in Harare to effectively leverage social media for effective dissemination of HIV/AIDS information to the target group. However, with a clear coordinated HIV/AIDS dissemination model, based on data from this study, HIV/AIDS organisations in Harare have a starting point for improving the dissemination of HIV/AIDS information, as well as preventing the growth in the number of HIV/AIDS infections among young people aged 18-24 in Harare.

CHAPTER 7

Findings, recommendations, and conclusion

7.1 Introduction

Data from the study show that social media use among the young people in Harare aged 18-24 is fairly regular with most young people indicating daily access. A large number of young people in Harare can therefore be reached with important HIV/AIDS information through social media networks. This affirmed the use of social media networks to disseminate HIV/AIDS information to young people aged 18-24 in Harare. There is however and urgent need for collaboration among organisations disseminating HIV/AIDS information in Harare. This study proposed a coordinated HIV/AIDS model for disseminating HIV/AIDS information through social media platforms such as WhatsApp, Facebook and Twitter among young people aged 18-24 in Harare.

The data from the study show that the majority of young people aged 18-24 in Harare use social media such as Whatsapp, Facebook, Twitter, Instagram, LinkedIn, and Skype (See 5.2.3; 5.2.4; 5.2.5; 5.3.3 Question 7 and 5.4.3; Questions 11 and 12). The continued uptake of social media use is a reality among young people aged 18-24 in Harare. This calls for organisations disseminating HIV/AIDS information among young people in Harare to design a model that uses social media to ensure improved HIV/AIDS information dissemination to the target group.

The literature review and the data from the study have revealed that there are tremendous benefits of using social media platforms to improve the dissemination of HIV/AIDS information to young people in Harare (see Chapters 2, 3 and 5). However, the special needs and circumstances of Harare's

young people have to be taken into consideration. A model that utilises social media to disseminate HIV/AIDS information for the target group was therefore developed to achieve the following:

- A coordinated approach to HIV/AIDS information dissemination to young people aged 18-24 years in Harare;
- Forge links among organisations disseminating HIV/AIDS information to young people aged 18-24 in Harare;
- Timeous dissemination of HIV/AIDS information to young people aged 18-24 in Harare;
- Free communication/sharing of HIV/AIDs information among young people in Harare;
- Improved HIV/AIDS awareness to young people in Harare;
- Improved HIV/AIDS information dissemination to young people in Harare.

7.2 Findings

The findings for the research questions draw on the literature review, the questionnaire responses, as well as interview responses from both Focus Group Discussions and interviews with representatives from organisations currently disseminating HIV/AIDS information in Harare. These are presented in the order of research sub-questions followed by the Main Question, as presented in Chapter one.

7.2.1 Sub-question 1-How has HIV/AIDS information been disseminated to young people?

- Mobile technologies have been widely used for HIV/AIDS preventive education to address both adults and teenagers (See 2.4.1);

- Information and Communication Technologies (ICTs) have been used for HIV/AIDS preventive education in developing countries with a specific focus on teenagers (See 2.4.1);
- Static websites (e.g. web1.0) and CD-ROMS were the prevailing solution for HIV/AIDS preventive education both in adult populations and in schools (See 2.4.1);
- E-mail discussion groups, social media (fairly new), the World Wide Web (WWW), radio, television and distance learning systems are among the ICT tools that have been used in the fight against HIV/AIDS in developing countries (See 2.4.1);
- Newer ICT technologies, such as web2.0 tools and computer games, have not been applied extensively to disseminate HIV/AIDS preventive education information in developing countries (See 2.4.1);

7.2.2 Sub-question 2- How has HIV/AIDS information been disseminated in Zimbabwe in general, and to the 18-24 age group in Harare in particular?

- HIV/AIDS information in Harare has been disseminated by various organisations, among them Hope Zimbabwe; National AIDS Council of Zimbabwe (NAC); Zimbabwe AIDS Network (ZAN); Zimbabwe National Network for People Living with HIV/AIDS (ZNNP); Southern African HIV *and AIDS* Information Dissemination Service (SAFAIDS); and the Zimbabwe Catholic Bishops' Conference (ZCBC) HIV and AIDS Desk (See 5.4.1);
- ICTs have been used to disseminate HIV/AIDS information to the 18-24 age group in Zimbabwe in general (See 2.6.4);

- Most organisations in Harare disseminate HIV/AIDS information to young people aged 18-24 using Information, Education and Communication (IEC) materials. In some organisations, HIV/AIDS information is disseminated by coordinating activities such as community sensitisation and workshops. Entertainment such as road shows and interpersonal communication in schools through school programmes are some of the methods of disseminating HIV/AIDS information to young people in Harare (See 5.4.2; Question 7);
- HIV/AIDS information in Harare has also been disseminated via radio, school programmes, peer educators, road shows, discussion forums, conferences, policy briefs, pamphlets, websites and to a lesser extent via social media platforms (See 5.4.2). There are concerns among HIV/AIDS organisations to use social media platforms for disseminating HIV/AIDS information to the target group such as stress and being stigmatized. The proposal is that social media platforms must complement other forms of disseminating HIV/AIDS information to young people aged 18-24 in Harare (See 5.4.5).

7.2.3 Sub-question 3- Which social media do the 18-24 age group in Harare prefer to access HIV/AIDS information?

- The majority of young people aged groups 18-24 prefer to access HIV/AIDS information via the WhatsApp platform (See 5.2.5; figure 21); Facebook, and Twitter are also used in some instances where necessary. These were the top three preferred social media platforms, according to the data (See 5.2.3; 5.2.4; 5.2.5; 5.3.3);
- Responses from interviews in the Focus Group Discussions confirmed the data in the questionnaires that young people aged 18-24 prefer using the

WhatsApp platform to access HIV/AIDS information (See 5.3.3; Question 7 and Appendix B, last paragraph of responses to question 6);

- Responses from HIV/AIDS organisations also revealed that young people prefer using the WhatsApp platform to access HIV/AIDS information; the WhatsApp platform was also the preferred social media platform, according to interviews with representatives of organisations disseminating HIV/AIDS information among young people in Harare (See 5.4.3).

7.2.4 Sub-question 4-Which model is the most suitable, and what roles can social media play to improve the dissemination of HIV/AIDS information to the 18-24 age group in Harare?

- The Harare HIV/AIDS Information Dissemination Programme for Young People (HAIDYP) model with an HIV/AIDS Information Dissemination Advisory Board to oversee HIV/AIDS information dissemination to young people aged 18-24 in Harare is the most suitable. The HIV/AIDS Information Dissemination Advisory Board should be made up of a representative from each of the six HIV/AIDS organisations;
- The Members will constitute an Advisory Board with a rotating Chairperson. The term of office for the Chairperson will be two years. Members of the HIV/AIDS Information Dissemination Advisory Board will serve two-year terms with possible appointment to a second term for a maximum of four years of consecutive service. The HIV/AIDS Information Dissemination Advisory Board will have oversight of HIV/AIDS information dissemination to young people in Harare;
- Each HIV/AIDS organisation will be responsible for one or more aspects of HIV/AIDS information dissemination. For example, recruiting young people, meetings with potential candidates and providing training identified by the constituent organisations as relevant to improving

dissemination, collaborating with radio presenters on dissemination of HIV/AIDS information using the preferred languages which are English, Ndebele, Shona and Venda;

- Zimbabwe AIDS Network (ZAN), responsible for creating strong networks and linkages, will partner with radio presenters as well as using peers in disseminating HIV/AIDS information received via social media platforms (See 5.2.3 and figure 10, 5.2.5 and figure 21 and 5.4.1);
- Disseminating HIV/AIDS information to the target group using English, Ndebele, Shona and Venda languages. These features make this model unique and different from the extant models (See 5.2.5, 5.3.1 and 5.4.1);
- A special/unique feature is that the model combines/integrates the features of mass media such as radio with social media;
- The Harare HIV/AIDS Information Dissemination Programme for Young People (HAIDYP) model is special and exceptional because by incorporating a counselling role, the HAIDYP model will introduce features not found in other HIV/AIDS disseminating models (See 5.4.4: response to question 15).

7.2.5 Sub-question 5- What would be the most important elements and features of a programme for improving the dissemination of HIV/AIDS information to the 18-24 age group in Harare?

The Harare HIV/AIDS Information Dissemination Programme for Young People (HAIDYP) model should have an Advisory Board with a Chairperson who will be the liaison person with the Zimbabwe Ministry of Health and Child Care as well as national and international organisations handling HIV/AIDS issues. The Chairperson should communicate improvements on HIV/AIDS dissemination among the target group to the Zimbabwe Ministry of Health and Child Care through the Director responsible for HIV/AIDS activities in the Ministry;

- The Harare HIV/AIDS Information Dissemination Advisory Board should manage and oversee that databases containing HIV/AIDS information are constantly updated and assure quality in dissemination of HIV/AIDS information to the target group. Through liaison with representatives from the six HIV/AIDS organisations, the Advisory Board should ensure organisations disseminating HIV/AIDS information to young people in Harare execute the assigned tasks (See 6.3.2.2);
- Organisations disseminating HIV/AIDS information to young people should use the preferred languages which are English, Ndebele, Shona and Venda languages in order to narrow the level of clarity and simplicity in expression and style (See 5.2.5; 5.3.1, 5.4.5 Question 17 and 6.2.2). The Advisory Board should ensure that ZAN recruits language experts to handle translation so that HIV/AIDS information is disseminated to the target group using the preferred languages;
- The Harare HIV/AIDS Information Dissemination Advisory Board should ensure that the programme is adequately resourced through partnering with potential funders such as The Bill and Melinda Gates and USAID, liaising with international HIV/AIDS organisations. The Advisory Board should work closely with the Zimbabwe Ministry of Health and Child Care so that activities for the HIV/AIDS information dissemination for young people aged 18-24 in Harare are budgeted for. The two should also submit joint funding proposals to international organisations dealing with HIV/AIDS issues. Later, the Advisory Board can venture into income generation projects with the recruited young people such as running HIV/AIDS workshops to other towns in Zimbabwe. This will ensure sustainability of the programme.

7.3 Main Question

Which model and what roles for social media will improve the dissemination of HIV/AIDS information to young people aged 18-24 in Harare?

Social media in all of its forms has definitely become an integral part of life for young people. A model which therefore uses social media platforms to disseminate HIV/AIDS information to young people aged 18-24 in Harare is not surprising. The model should use English, Ndebele, Shona and Venda to disseminate critical, reliable and accurate HIV/AIDS information to the target group for ease of understanding, thereby improving the dissemination of HIV/AIDS information to this target group.

The ideal model for disseminating HIV/AIDS information to the target group draws on some of the strengths of extant models found in the literature and should fit the specific circumstances of an African city, namely Harare. The key features should be:

- A model with The Harare HIV/AIDS Information Dissemination Advisory Board having an oversight of the HIV/AIDS dissemination assigned tasks. It is a model that for the first time draws together all the organisations involved in disseminating HIV/AIDS information, and it is a specifically targeted model;

- A model that for the first time in Zimbabwe integrates mass and social media for this purpose, being assisted by radio presenters and peers -

young people for HIV/AIDS information dissemination (See figure 21, See Appendix B, last paragraph of responses to question 6 and 5.4.3, responses to question 11);

- A model that is linguistically unique because it is sensitive to the indigenous languages namely English, Ndebele, Shona and Venda languages for clarity and easy understanding will improve the dissemination of HIV/AIDS information to young people aged 18-24 in Harare (See 5.2.5, 5.3.1 and 5.4.1);
- It is a model that recognises and advocates links with international, regional, and national organisations to improve dissemination of critical, needed and relevant HIV/AIDS information to young people aged 18-24 in Harare;
- It is a model that incorporates a counselling aspect, and that addresses some of the limitations in other informal education models.

7.4 Recommendations

Recommendations that flow from the findings of the study in order to improve dissemination of HIV/AIDS information to young people aged 18-24 in Harare will be proposed in the paragraphs below.

- HIV/AIDS organisations should disseminate HIV/AIDS information to young people in Harare through social media platforms instead of other forms of media because it is faster and cheaper (See 5.4.4);
- Social media platforms should be used as avenues through which the target group can access critical and relevant HIV/AIDS information (See 5.2.3; 5.2.4; 5.2.5; 5.3.3).
- Young people should access HIV/AIDS information via social media platforms because they consider anonymity as an important justification,

and are able to receive real time HIV/AIDS information which can save lives when people make the appropriate and correct decisions on time (See 5.3.1, responses to questions 4, 5, 6);

- Social media platforms like WhatsApp, Facebook and Twitter should be used to access information about HIV/AIDS by most young people in Harare (See 5.2.5, diagram 21);
- Social media platforms should be used to empower HIV/AIDS organisations in Harare to network with young people aged 18-24 in Harare, Peer Educators, IT and language experts and national and international organisations dealing with HIV/AIDS in disseminating relevant and accurate HIV/AIDS information to this target group, thereby, meeting the HIV/AIDS needs of young people in Harare.
- Young people aged 18-24 in Harare should be encouraged to join these networks so that they are able to freely communicate and dialogue with their peers and with organisations disseminating HIV/AIDS information. By so doing, the target group will begin to understand some HIV/AIDS issues that they were not clear about or familiar with, and this will increase their knowledge about HIV/AIDS;
- The Harare HIV/AIDS Information Dissemination Programme for Young People (HAIDYP) model should be a starting point in improving the dissemination of critical, reliable and accurate HIV/AIDS information to young people aged 18-24 in Harare, thereby improving the dissemination of HIV/AIDS information to this target group (See Table 1).

7.5 Future Research

- The Harare HIV/AIDS Information Dissemination Programme for Young People (HAIDYP) model can be expanded, targeting young people in the

other cities in Zimbabwe, such as Mutare. An evaluation of the impact of the model in Harare should be carried out after two years;

- The HAIDYP model can be used to disseminate HIV/AIDS information to age groups younger than the target group in Harare. This can be in collaboration with organisations such as UNICEF;
- The HAIDYP model can be used to efficiently disseminate HIV/AIDS information to young people in Zimbabwe's rural areas using the other indigenous languages as provided for in the new constitution of Zimbabwe. The only challenge may be funding. There will be need to recruit Assistant researchers who can speak and understand different indigenous languages;
- Branches of HAIDYP with an Advisory Board overseeing activities on HIV/AIDS dissemination to young people using the same model can be set up in Bulawayo and Mutare;
- Depending on the success in these two towns, these can be extended to other cities in Zimbabwe. Funding might also be a challenge. The HAIDYP model can be adapted. Funding proposals can be submitted to organisations such as USAID.

7.6 Conclusion

Social media platforms, particularly the WhatsApp platform, are vibrant and powerful tools that organisations disseminating HIV/AIDS information in Harare must exploit to the fullest to disseminate critical, reliable, and accurate HIV/AIDS information for the benefit of young people aged 18-24 in Harare. HAIDYP offers an evidence-based model that will ensure the maximum impact to achieve this.

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APPENDIX A: Survey Questionnaire

Good morning/afternoon, my name is Agnes Chikonzo. I am carrying a study to understand the preferred media for dissemination of HIV/AIDS information among young people aged 18-24 years. The purpose of this study is to investigate the Role of Social Media in Disseminating HIV/AIDS Information among Young People in Harare. Participation in this survey is voluntary. The responses that you give will be anonymous and confidential and will never be linked to you personally. If there are any questions that you are not comfortable answering, you may skip them. Thank you for your cooperation.

SOCIAL AND DEMOGRAPHIC QUESTIONS

Tick the appropriate box

1. How old are you?

18 yrs	**19 yrs**	**20yrs**	**21yrs**	**22yrs**	**23yrs**	**24yrs**

2. Gender

Gender	M	F

3. What is your place of residence?

LOW DENSITY	HIGH DENSITY	NOT PREPARED TO ANSWER

4. What is your highest level of education?

Tertiary	Secondary	Primary	No Education	Not Prepared to Answer

KNOWLEDGE ASSESSMENT

This section will ask questions that will cover statements relating to your knowledge about HIV/AIDS.

5. How much do you know about the HIV/AIDS disease?

Extremely Aware	Aware	Neutral	Unaware	Not at all Aware

6. To what extent do you agree or disagree with the following phrases regarding how people can contract HIV/AIDS?

Tick the appropriate box

	Strongly Agree	**Agree**	**Neither Agree or Disagree**	**Disagree**	**Strongly Disagree**
Having unprotected sex					
Using a used condom					
Sharing cutlery with someone who is HIV positive					
Mother to child transmission					
Shaking hands with someone who is HIV positive					
Receiving infected blood					
Sharing needles in Clinics or hospitals					

where there are not enough needles					
Sharing food with someone who is HIV positive					

7. To what extent do you agree or disagree with the following statements?

Statements	**Strongly Agree**	**Agree**	**Neither agree or Disagree**	**Disagree**	**Strongly Disagree**
People of any age, sex, or race are at risk of transmitting HIV/AIDS					
There is a vaccine to prevent HIV/AIDS infection					
Having a sexually transmitted disease (STD) can increase one's risk of getting HIV/AIDS					
Sexual contact with many partners can increase one's risk of					

getting HIV/AIDS					
Sexual partners who both have HIV/AIDS need to use condoms					
Sleeping with a virgin can cure HIV/AIDS					
Taking a shower immediately after having sex with an infected person minimises chances of being infected with HIV/AIDS					

Other:

specify……

SOURCE FOR ACCESSING HIV/AIDS INFORMATION

This section will focus on main source for accessing HIV/AIDS information

8. Did you have access to HIV/AIDS information in the last 12 months?

Access to HIV/AIDS Information	YES	NO

9. Select the main source through which you access information about HIV/AIDS ***(You can choose more than one)***

Main Source	
Peers	
Books	
Newspaper	
Internet	
Radio	
SMS	
Facebook	
Twitter	
WhatsApp	

Other:

specify……

TYPE OF INFORMATION ACCESSED VIA SOCIA MEDIA

10. What type of information do you receive via social media? (Tick all applicable)

Type of Information	

Invitations to functions	
Educational	
Entertainment	
HIV/AIDS	
Humour (Jokes)	
News	
Religious	
Sport	

Other: specify……

11. In the last month, how often did you receive HIV/AIDS-related articles/stories via social media?

Social Media	**Once**	**Once per-week**	**2-3 times per-week**	**4-5 times per-week**
Facebook				
Twitter				
WhatsApp				

Other:

specify……

12. In the last month, how often did you read HIV/AIDS-related messages on the social media?

Social Media	**Once**	**Once per-week**	**2-3 times per-week**	**4-5 times per-week**
Facebook				
Twitter				
WhatsApp				

Other:

specify……

Question 13- In the past month, how often did you share HIV/AIDS-related messages via the social media?

13. In the last month, how often did you share HIV/AIDS-related messages on the social media?

Social Media	**Once**	**Once per-week**	**2-3 times per-week**	**4-5 times per-week**
Facebook				
Twitter				
WhatsApp				

Other: specify……

HIV/AIDS RELATED MEDIA USE

14. Select the media through which you prefer organisations to disseminate HIV/AIDS information (*You can choose more than one)*

Preferred Media	
Television	
Radio	
Newspaper	
Word of mouth from a friend	
SMS	
Facebook	
Twitter	
WhatsApp	

Other:

specify……

15. If you have preferred social media in the previous question (Q 14) explain why?

16. If you have not preferred social media, explain why not?

17. Select the language in which you prefer to access information about HIV/AIDS

English	**Shona**	**Ndebele**

Other:

specify……

Thank you for your participation.

APPENDIX B: Focus Group Interviews

5.3.1 Knowledge Assessment

Question 1. How knowledgeable are you about HIV/AIDS disease?

Question 2. How do people contract HIV/AIDS?

5.3.2 Types of Information Accessed via Social Media

Question 3. What is your understanding of social media?

Question 4. What type of information do you receive via social media?

5.3.3 HIV/AIDS Information

Question 5. Why would you like to receive information on HIV and AIDS via social media as compared to other forms of media?

Question 6. What are the benefits of receiving HIV and AIDS information via social media?

5.3.4 HIV/AIDS Related Media Use

Question 7. Do you consider social media to be the best platform to disseminate HIV/AIDS information among the 18-24 age groups?

Question 8. Which language would you prefer to receive information about HIV/AIDS?

5.3.5 General Issues

Question 9. Do you have any questions you would like to ask?

APPENDIX C: Interviews with HIV/AIDS Organisations

Background Information

Question 1: When was your organisation established?

Question 2: What are the main aims of your organisation?

Question 3: How is your organisation funded?

HIV/AIDS Information Dissemination

Question 4. To whom do you disseminate HIV/AIDS information in Harare?

Question 5: Who in the organisation is responsible for disseminating HIV/AIDS information?

Question 6: In disseminating HIV/AIDS information do you also target young people aged 18-24?

Question 7: Which methods do you use to disseminate HIV/AIDS information to young people in Harare?

Question 8: Which languages do you use to disseminate HIV/AIDS information to young people in Harare?

Social Media

Question 9. What is your understanding of Facebook, Twitter and WhatsApp as effective platforms for disseminating HIV/AIDS information?

Question 10. For how long has your organisation been using social media to disseminate HIV/AIDS information to young people in Harare?

Question 11. Which social media do you think the 18-24 age group in Harare prefer to access HIV/AIDS information (in order of preference, Whatsapp, Facebook, Twitter)?

Question 12. Which social media platform would you consider best for disseminating HIV/AIDS information to young people in Harare and why (Facebook, Twitter or WhatsApp)?

HIV/AIDS Information

Question 13. Would you prefer disseminating information on HIV and AIDS via social media as compared to other forms of media?

If YES, why?

If NO, why not?

Question 14. What are the advantages of disseminating HIV and AIDS information via social media?

Question 15. What are the disadvantages of disseminating HIV and AIDS information via social media?

HIV/AIDS Related Media Use

Question 16. Does your organisation disseminate useful information such as nutrition, medical insurance, social relations and employment to HIV patients?

If "NO", why?

Question 17. Which languages do you use to disseminate the above information to young HIV patients in Harare?

Question 18. What additional roles can social media play to improve the dissemination of HIV/AIDS information among the 18-24 age group in Harare?

Question 19. Do you have anything else to add regarding the use of social media to disseminate HIV/AIDS to young people in Harare?

Thank you for your time

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APPENDIX D: University of Pretoria Research Ethics Approval Letter

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Engineering, Built Environment and Information Technology

Fakulteit Ingenieurswese, Bou-omgewing en Inligtingtegnologie / Lefapha la Boetšenere, Tikologo ya Kago le Theknolotši ya Tshedimošo

Reference number: EBIT/4/2017 13 March 2017

Mrs AC Chikonzo
Department Information Science
University of Pretoria
Pretoria
0028

Dear Mrs Chikonzo,

FACULTY COMMITTEE FOR RESEARCH ETHICS AND INTEGRITY

Your recent application to the EBIT Research Ethics Committee refers.

Approval is granted for the application with reference number that appears above.

1. This means that the research project entitled "To investigate the role of social media in disseminating HIV/AIDS information among the young people, 18-24 age groups: the case of Harare" has been approved as submitted. It is important to note what approval implies. This is expanded on in the points that follow.
2. This approval does not imply that the researcher, student or lecturer is relieved of any accountability in terms of the Code of Ethics for Scholarly Activities of the University of Pretoria, or the Policy and Procedures for Responsible Research of the University of Pretoria. These documents are available on the website of the EBIT Research Ethics Committee.
3. If action is taken beyond the approved application, approval is withdrawn automatically.
4. According to the regulations, any relevant problem arising from the study or research methodology as well as any amendments or changes, must be brought to the attention of the EBIT Research Ethics Office.
5. The Committee must be notified on completion of the project.

The Committee wishes you every success with the research project.

Prof JJ Hanekom
Chair: Faculty Committee for Research Ethics and Integrity
FACULTY OF ENGINEERING, BUILT ENVIRONMENT AND INFORMATION TECHNOLOGY