

**The Role of Behavioural Change Theory in Social Marketing Interventions on
HIV/AIDS in Ghana**

Ernest Yaw Tweneboah-Koduah

Calcutta House Library
Old Castle Street
London E1 7NT



**A Thesis Submitted to London Metropolitan University in Fulfilment of the
Requirements for the Award of the Degree of Doctor of Philosophy in the London
Metropolitan Business School**

2013

Abstract

In Ghana, data on HIV prevalence in the ten regions indicates that, the country has failed to realise a consistent decline of HIV new infections. This has resulted in Government spending huge sums of money on HIV/AIDS-related activities instead of the other productive sectors of the economy. Therefore, the aim of this research sought to understand how theories of behaviour change could be employed to design effective social marketing intervention programmes for HIV/AIDS preventions in Ghana. The study employs both qualitative and quantitative research approaches and a stratified sampling method to achieve the aims and objectives of the study. A total of 487 respondents provided information for both qualitative and quantitative studies. The results reveal among others that implementers of social marketing intervention programmes on HIV/AIDS in Ghana do not utilise behavioural change theories/models in planning their interventions and the main challenges facing implementers include inadequate financing, health system barriers, procurement delays and lack of human resources. The research further found that majority of Ghanaians have seen or heard social marketing interventions on HIV/AIDS, know what they can do to prevent HIV/AIDS new infection, and have seen or heard interventions on HIV/AIDS for a long period of time. However, social marketing intervention programmes designed to change HIV/AIDS related behaviours of Ghanaians have, generally, been ineffective. Therefore, the study recommends that, implementers of social marketing intervention programmes on HIV/AIDS in Ghana should ascertain why most Ghanaians have not adopted HIV/AIDS protective behaviours. This can be done by utilising research findings and application of an integrative behaviour model to design intervention programmes on HIV/AIDS to convert increased awareness and attitude change into behaviour change. The implications are presented in the conclusion.

Acknowledgement

First of all, I thank the Almighty God for the life, grace, strength, and sanity of mind he has given me throughout the study period. I could not have come this far without him. I am highly indebted to my Director of Studies, Prof. Nana Owusu-Frimpong for the advice, guidance, encouragements and helpful comments on my drafts. Without his support it would not have been possible to complete the study. I also want to give special thanks to Dr. Marwa Gad Mohsen and Dr. Diana Luck for their thoughtful supervision and guidance during the research period.

I am also thankful to Prof. Paul N. Buatsi, friends, and my lovely children, Barimah, Obaapanin, and Oheneba for their love and prayers. More than anyone else, I would like to send special thanks to my beautiful, God fearing, and hardworking wife, Benedicta for her encouragements, prayers and financial support.

Finally, I wish to thank the Dean, faculty and staff of the University of Ghana Business School for making funds available to support my living expenses in UK.

Statement of Original Authorship

I declare that the contents of this thesis have not been previously submitted for a degree or diploma in any University. To the best of my knowledge and belief, this thesis contains no material previously published or written by another person, except where due references have been made in the thesis.



Ernest Yaw Tweneboah-Koduah

Dedication

This thesis is dedicated to my wife Mrs. Benedicta Tweneboah-Koduah and Children, Barimah Yaw Tweneboah-Koduah, Obaapanin Ama Kyere Tweneboah-Koduah, and Oheneba Yaw Tweneboah-Koduah.

Table of Contents

| | Page |
|--|------|
| Abstract | I |
| Acknowledgement | li |
| Statement of Original Authorship | lii |
| Dedication | Iv |
| List of Tables | X |
| List of Figures | Xiii |
| Chapter 1: Introduction | |
| 1.0 Introduction | 1 |
| 1.1 Rational for the Study | 5 |
| 1.2 Aim and Objectives of the Study | 7 |
| 1.3 The Concept of Originality in a PhD Thesis | 7 |
| 1.4 Structure of the Thesis | 9 |
| 1.5 Summary | 11 |
| Chapter 2: Background Information | |
| 2.0 Introduction | 12 |
| 2.1 Profile of Ghana | 12 |
| 2.1.1 The Population of Ghana | 14 |
| 2.2 Socio-Economic Development of Ghana | 15 |
| 2.2.1 The Fourth Republic | 16 |
| 2.3 The Ghana Health Sector | 20 |
| 2.3.1 Policy Issues in the Health Sector | 21 |
| 2.3.2 Ghana Government Health Policies of 1997-2011 | 22 |
| 2.3.3. The structure of Ghana's Health System | 26 |
| 2.3.4 The State of Workforce and Health facilities in the Ghanaian Health Sector | 29 |
| 2.4 History and Background Information of HIV/AIDS | 31 |
| 2.4.1 HIV/AIDS in Sub-Saharan Africa and Ghana | 34 |
| 2.4.2 Determinants of Spread of HIV in Ghana | 36 |
| 2.4.3 The Potential Impact of HIV/AIDS | 38 |
| 2.4.3.1 The Impact on Health Sector | 38 |

| | |
|---|----|
| 2.4.3.2 The Impact on Households | 39 |
| 2.4.3.3 HIV/AIDS Impact on Education and Labour Force | 41 |
| 2.5 Institutions Involved in HIV/AIDS Prevention in Ghana | 44 |
| 2.5.1 Introduction | 44 |
| 2.5.2 Ghana Health Service | 44 |
| 2.5.3 Ghana AIDS Commission | 47 |
| 2.5.4 Ghana Social Marketing Foundation (GSMF) | 48 |
| 2.6: The Interventions to Reduce HIV Transmission in Ghana | 49 |
| 2.7 Summary | 50 |
| Chapter 3: Literature Review of Social Marketing and Behavioural Change Theories | |
| 3.0 Introduction | 53 |
| 3.1 Origin of Social Marketing | 53 |
| 3.2 Definitions of Social Marketing | 55 |
| 3.3 Social Marketing Framework | 59 |
| 3.3.1 Behavioural Goals | 60 |
| 3.3.2 Customer Insight | 62 |
| 3.3.3 Segmentation and Targeting | 64 |
| 3.3.4 Competition | 65 |
| 3.3.5 Exchange | 67 |
| 3.3.6 Social Marketing and Intervention Mix | 68 |
| 3.3.6.1 Product | 68 |
| 3.3.6.2 Price | 69 |
| 3.3.6.3 Place | 70 |
| 3.3.6.4 Promotion | 71 |
| 3.4 Upstream and Downstream Application of Social Marketing | 73 |
| 3.5 Behavioural Change Theories in Social Marketing | 75 |
| 3.5.1 The Health Belief Model | 77 |
| 3.5.2 Protection Motivation Theory | 82 |
| 3.5.3 Extended Parallel Process Model (EPPM) | 86 |
| 3.5.4 Social Cognitive Theory | 88 |
| 3.5.5 Social Norm Theory | 89 |
| 3.5.6 The Stages of Change Model | 93 |

| | |
|--|-----|
| 3.5.7 Theory of Reasoned Action/Theory of Planned Behaviour | 98 |
| 3.6 The Conceptual Framework and Role of Integrative Behavioural Change Theories in Social Marketing Interventions | 102 |
| 3.7 Summary | 109 |
| Chapter 4 Research Design and Methodology | |
| 4.0 Introduction | 112 |
| 4.1 Ontology, Epistemology and Methodology | 115 |
| 4.2 Philosophical Worldviews | 115 |
| 4.2.1 The Post-Positivist Worldview | 116 |
| 4.2.2 The Social Constructivist Worldview | 117 |
| 4.2.3 The Advocacy and Participatory Worldview | 117 |
| 4.2.4 The Pragmatic Worldview | 118 |
| 4.2.5 Research Philosophy Adopted for the Study | 119 |
| 4.3 Primary versus Secondary Data | 120 |
| 4.4 Research Design | 122 |
| 4.4.1 Mixed Methods Strategies | 122 |
| 4.4.2 Qualitative Research Approaches | 123 |
| 4.4.2.1 Case Study Research | 124 |
| 4.4.2.2 Ethnography Research | 125 |
| 4.4.2.3 Grounded Theory Research | 126 |
| 4.4.2.4 Phenomenology Research | 127 |
| 4.4.2.5 Qualitative Sample Selection Methods | 128 |
| 4.4.2.5.1 Convenience Samples | 128 |
| 4.4.2.5.2 Purposive Samples | 129 |
| 4.4.2.5.3 Snowball Samples | 129 |
| 4.4.2.5.4 Quota Samples | 130 |
| 4.4.2.6 Qualitative data administration methods | 131 |
| 4.4.2.6.1 Focus Group Interviews | 131 |
| 4.4.2.6.2 In-depth Interviews | 132 |
| 4.4.2.6.3 Observation Techniques | 133 |
| 4.4.2.7 Qualitative Data Analysis | 135 |
| 4.4.2.7.1 Thematic Analysis | 135 |
| 4.4.2.7.2 Narrative Analysis | 135 |

| | |
|--|-----|
| 4.4.2.7.3 Discourse Analysis | 136 |
| 4.4.2.7.4 Content Analysis | 136 |
| 4.4.2.7.5 Grounded Theory Analysis | 137 |
| 4.4.3 Quantitative Research Design | 138 |
| 4.4.3.1 Survey Research | 138 |
| 4.4.3.2 Questionnaire Design and Administration | 141 |
| 4.4.3.3 Sampling Design | 142 |
| 4.4.3.3.1 Target Population | 143 |
| 4.4.3.3.2 Sampling Frame | 143 |
| 4.4.3.3.3 Sampling Technique | 144 |
| 4.4.3.3.3.1 Simple Random Sampling | 144 |
| 4.4.3.3.3.2 Systematic Sampling | 144 |
| 4.4.3.3.3.3 Stratified Sampling | 145 |
| 4.4.3.3.3.4 Cluster Sampling | 146 |
| 4.4.3.3.4. Sample Size Determination | 147 |
| 4.4.3.3.5 Population and Sampling for the Study | 148 |
| 4.4.3.3.6 Methods used for Collecting Survey Data | 149 |
| 4.4.3.3.7 Quantitative Data Analysis Techniques | 151 |
| 4.4.3.3.7.1 Cross-Tabulation | 152 |
| 4.4.3.3.7.2 The Use of a t or z-Test | 154 |
| 4.4.3.3.7.3 Analysis of Variance (ANOVA) | 155 |
| 4.4.3.3.7.4 Correlation | 156 |
| 4.4.3.3.8 Statistical Analysis Techniques Employed for the Study | 157 |
| 4.5 Summary | 158 |
| Chapter 5 Data Analysis and Results | |
| 5.0 Introduction | 161 |
| 5.1 Qualitative Data Analysis | 162 |
| 5.1.1 Types and Objectives of Social Marketing Interventions on HIV/AIDS in Ghana | 163 |
| 5.1.2 Targets for Social Marketing Intervention Programmes on HIV/AIDS | 165 |
| 5.1.3 Environmental Factors that hinder the adoption of Social Marketing Programmes on HIV/AIDS. | 170 |
| 5.1.4 Challenges in Implementation of Social Marketing Intervention Programmes | 171 |
| 5.1.5 Extent/Coverage of Social Marketing Interventions on HIV/AIDS | 172 |

| | |
|--|-----|
| 5.1.6 Perception of Ghanaians on HIV/AIDS | 173 |
| 5.1.7 Summary of Qualitative Results | 173 |
| 5.2 Quantitative Data analysis | 174 |
| 5.2.1 Descriptive Analysis | 174 |
| 5.2.3 Knowledge and Impact of Social Marketing Interventions on HIV/AIDS | 176 |
| 5.2.3.1 Gender and their Awareness of Social Marketing Interventions on HIV/AIDS | 176 |
| 5.2.3.2 Urban and Rural Respondents and their Awareness of Social Marketing Interventions on HIV/AIDS | 177 |
| 5.2.4 Medium of Receiving Social Marketing Interventions on HIV/AIDS | 178 |
| 5.2.5 Action to Prevent HIV/AIDS New Infection | 186 |
| 5.2.6 Impact of Social Marketing Interventions on HIV/AIDS | 188 |
| 5.2.7 Normative Beliefs, Attitude, Personal Agency, Intention and Behavioural Performance of Respondents | 190 |
| 5.2.8 Environmental Factors Preventing HIV/AIDS Protective Behaviours | 194 |
| 5.2.8.1 Location of Respondents and their Views on Availability of Facilities to Buy Condom or Test for HIV/AIDS | 195 |
| 5.2.9 Intention to Perform HIV/AIDS Protective Behaviours | 196 |
| 5.3 Hypotheses Testing | 198 |
| 5.4 Summary of Quantitative Results | 212 |
| Chapter 6 Discussion of Results | |
| 6.0 Introduction | 215 |
| 6.1 Discussions of Qualitative Research Results | 215 |
| 6.1.1 The Objectives of Social Marketing Interventions on HIV/AIDS in Ghana | 216 |
| 6.1.2 Segmenting and Targeting of Social Marketing Intervention programmes on HIV/AIDS | 217 |
| 6.1.3: The Use of Behavioural Change Theories in Planning Social Marketing Interventions | 219 |
| 6.1.4 Environmental Factors Preventing Ghanaians from Adopting Social Marketing Recommendations | 220 |
| 6. 1.5 Challenges of Implementers | 222 |
| 6.1.6 Awareness of Social Marketing Interventions on HIV/AIDS | 223 |
| 6.1.7: Perceptions of Ghanaians on HIV/AIDS | 224 |

| | |
|---|-----|
| 6.2 Discussions of Quantitative Research Results | 225 |
| 6.2.1 Knowledge and impact of Social Marketing Interventions on HIV/AIDS | 225 |
| 6.2.2: Impact of Social Marketing Intervention Programmes on HIV/AIDS | 226 |
| 6.2.3 Medium of Receiving Social Marketing Interventions on HIV/AIDS | 227 |
| 6.2.4: Normative Beliefs, Attitude, Personal Agency, Intention and Behavioural Performance of Respondents | 232 |
| 6.2.4.1 Perceive Susceptibility of Respondents | 232 |
| 6.2.4.2: Normative Beliefs of Respondents | 233 |
| 6.2.4.3: Perceived Severity of HIV/AIDS | 236 |
| 6.2.4.4 Self Efficacy of Respondents | 237 |
| 6.2.4.5 Response Efficacy of Respondents | 239 |
| 6.2.5 Environmental Factors Preventing HIV/AIDS-Protective Behaviours | 240 |
| 6.2.6 Intention to Perform HIV/AIDS Protective Behaviours | 242 |
| 6.3 Summary of Differences and Similarities of Qualitative and Quantitative Findings | 243 |
| 6.4 Summary | 245 |
| Chapter 7 Summary, Conclusions, and Implications | |
| 7.0: Introduction | 247 |
| 7.1: Summary of the Study | 247 |
| 7.2: Theoretical and Managerial Implications of the Study | 250 |
| 7.2.1 Theoretical Implications | 251 |
| 7.2.2 Conclusions and Managerial Implications | 252 |
| 7.3 Limitations and Future Research | 259 |
| Bibliography | 261 |
| Appendix 1: Questionnaire | 291 |
| Appendix 2: Interview Guide for Qualitative Research | 297 |
| Appendix 3: Figures and Tables | 298 |
| Appendix 4: Author's Research and Conference Activities | 307 |

List of Tables

| | |
|---|----|
| Table 1.1: Government Expenditure on HIV/AIDS | 2 |
| Table 2.1: The Regional Distribution of Ghanaian Population | 14 |

| | |
|---|-----|
| Table 2.2: Ghana's Real GDP Growth Rate | 18 |
| Table 2.3: Summary of Health Facilities in Ghana. | 28 |
| Table 2.4: Doctor to Patient Ratio in Ghana | 29 |
| Table 2.5: Nurse to Population Ratio in Ghana | 30 |
| Table 3.1 Benchmark for Identifying a Genuine Social Marketing Programme | 59 |
| Table 5.1: Descriptive Statistics of Socio-Demographic Characteristics of the Respondents. | 175 |
| Table 5.2: Respondents' Awareness of Social Marketing Intervention on AIDS by Gender. | 176 |
| Table 5.3: Chi-Square Tests: Gender Awareness on HIV/AIDS | 177 |
| Table 5.4: Cross-Tabulation of Awareness of Social Marketing Intervention on AIDS by Location | 178 |
| Table 5.5: Chi-Square Tests: Respondents' Location and their on HIV/AIDS | 178 |
| Table 5.6a: Respondents' Age Group and Medium of Receiving Social Marketing Interventions on HIV/AIDS. | 179 |
| Table 5.6b: Respondents' Current Level of Education and Medium of Receiving Social Marketing Interventions on HIV/AIDS. | 182 |
| Table 5.6c: Location of Respondents and Medium of Receiving Interventions on HIV/AIDS | 185 |
| Table 5.7: Respondents Knowledge on HIV/AIDS Protective Behaviours | 187 |
| Table 5.8: Respondents' Awareness of Actions to prevent HIV by Location | 188 |
| Table 5.9: Chi-Square Tests: Urban and Rural Respondents and Knowledge on HIV/AIDS | 188 |
| Table 5.10: Male and Female and whether they have gone for HIV/AIDS Test | 189 |
| Table 5.11: Location of Respondents and their views on Women seen Buying or Carrying Condom | 191 |
| Table 5.12: Gender and their Perceptions on Buying Condom | 191 |
| Table 5.13a: Response Efficacy on Condom Use to Preventing HIV/AIDS | 193 |
| Table 5.13b: Response Efficacy on Keeping to one Sexual Partner to Prevent HIV/AIDS | 193 |
| Table 5.13c: Response Efficacy on Abstinence to prevent HIV/AIDS. | 194 |
| Table 5.14: Respondents' Location and Availability of Facilities to Buy | |

| | |
|--|-----|
| Condom or Test for HIV/AIDS. | 196 |
| Table 5.15: Respondents' Marital Status and Action to Use Condom | 198 |
| Table 5.16: Respondents' Current Level of Education and Susceptibility towards HIV/AIDS Pandemic | 199 |
| Table 5.17: Multiple Comparisons of Levels of Education | 200 |
| Table 5.18: Respondents' Age Group and Perceived Behavioural Control (Self Efficacy) | 201 |
| Table 5.19: Age Group of Respondents and Subjective Norms | 202 |
| Table 5.20: Correlations between Intention and Perceived Susceptibility | 202 |
| Table 5.21: Correlations between Performance of HIV-Protective Behaviour and Perceived Severity. | 203 |
| Table 5.22: Gender and Intention to use Condom | 204 |
| Table 5.23a: Correlations between Performance of HIV-Protective Behaviour and Response Efficacy | 205 |
| Table 5.23b: Correlations between Performance of HIV-Protective Behaviour and Response Efficacy. | 205 |
| Table 5.23c: Correlations between Performance of HIV-Protective Behaviour and Response Efficacy. | 206 |
| Table 5.24a: Correlations between Performance of HIV-Protective Behaviour and Intention. | 207 |
| Table 5.24b: Correlations between Performance of HIV-Protective Behaviour and Intention. | 207 |
| Table 5.25: Correlations between Performance of HIV-Protective Behaviour and Skills/Abilities. | 208 |
| Table 5.26a: Correlations between Performance of HIV-Protective Behaviour and Environmental Factors. | 209 |
| Table 5.26b: Correlations between Performance of HIV-Protective Behaviour and Environmental Factors. | 209 |
| Table 5.27: Correlations between Intention to Perform HIV-Protective Behaviour and Attitude. | 210 |
| Table 5.28: Correlations between Intention to Perform HIV-Protective Behaviour and Subjective Norms. | 211 |
| Table 5.29: Correlations between Intentions to Perform HIV-protective | |

| | |
|--|-----|
| Behaviours and Self-efficacy. | 212 |
| Table 6.1: Summary of Similarities of Qualitative and Quantitative Findings | 244 |
| Table 6.2: Summary of Differences between Qualitative and Quantitative Findings. | 245 |
| Table 5.30: Perceived Susceptibility on HIV/AIDS | 301 |
| Table 5.31: Women seen Carrying Condoms and their Image in Society | 301 |
| Table 5.32: Buying Condom as an Embarrassing Experience | 301 |
| Table 5.33: Subjective Norms on Condom Use, Abstinence, Keeping to one sexual partner or going for HIV test. | 301 |
| Table 5.34a: Action to Restrict Sex to one Partner | 306 |
| Table 5.34b: Action to test for HIV/AIDS. | 306 |
| Table 5.35: Respondents' Awareness of HIV-Protective Behaviours | 306 |
| Table 5.36: Medium of Receiving Social Marketing Intervention Programmes on HIV/AIDS | 306 |
| List of Figures | |
| Figure 1.1: HIV Prevalence (%) in the ten regions in Ghana | 3 |
| Figure 2.1: Map of Ghana | 13 |
| Figure 3.1: An Integrative Behaviour Model | 103 |
| Figure 5.1: Affordability of Condom | 195 |
| Figure 5.2: Abstinence from Sex | 298 |
| Figure 5.3: Stopped Unprotected Sex | 298 |
| Figure 5.4: Condom Usage by Respondents | 299 |
| Figure 5.5: Restricted Sex to One Partner | 299 |
| Figure 5.6: Stopped Sharing Blades/Needles | 300 |
| Figure 5.7: Gone for HIV/AIDS Test | 300 |
| Figure 5.8: Perceived Severity of HIV/AIDS | 302 |
| Figure 5.9: Self Efficacy of Respondents | 302 |
| Figure 5.10a: Facilities to Test for HIV/AIDS | 303 |
| Figure 5.10b: Facilities to Buy Condom | 303 |
| Figure 5.11a: Intention to Protect Oneself against HIV/AIDS | 304 |
| Figure 5.11b: Intention to Test for HIV/AIDS | 304 |

| | |
|---|-----|
| Figure 5.11c: Intention to Keep to One Sexual Partner | 305 |
| Figure 5.11d: Intention to Buy/Use Condom | 305 |

Chapter 1

Introduction

1.0 Introduction

This chapter introduces the study and provides a general overview. The chapter discusses the rationale of the study, the originality of this doctoral thesis, research aim and objectives, and structure of the thesis.

Acquired Immune Deficiency Syndrome [AIDS] caused by the Human Immuno-Deficiency Virus [HIV] was first recognised internationally in 1981 in the United States of America. Today, it has become a very serious problem as the search for a cure still continues. It is disturbing to know that more than 25 million people have died of AIDS since 1981 (UNAIDS, 2009). The estimated number of persons living with HIV and AIDS worldwide in 2009 was 33.3 million (UNAIDS, 2010). Even more disheartening is the fact that approximately 22.5 million (68%) of these people live in Sub-Saharan Africa. An estimated 2.6 million adults and children became infected with HIV in Sub-Saharan Africa, and 1.8 million died of AIDS in the year 2009 (UNAIDS, 2010). The first case of AIDS in Ghana was diagnosed in 1986 and by the year 2004, approximately 400,000 Ghanaians were estimated to be HIV-positive (UNAIDS, 2004). Prevalence rates increased from an estimated 2.6 per cent in 2000, to 3.6 per cent in 2003 and 3.1 per cent in 2004 (UNAIDS, 2004). According to the 2009 HIV Sentinel Survey, an estimated 267,069 persons are living with HIV/AIDS. This comprises 241,403 adults and 25,666 children, with cumulative death of 20,313. The national HIV median prevalence rate increased from 2.2% in 2008 to 2.9% in 2009 (NACP, 2009). In 2011, the prevalence was highest in the 30-34 year age group (2.9%) and lowest in the 20 - 24 year age group. The prevalence in the 15-24 year age group rose marginally to 1.7%, whilst that in the 15-19 year age group rose sharply to 1.9% (GAC, 2012). Out of those who died of AIDS in Ghana, 15,732 (77%) fall within 15-49 age group

(NACP, 2009). This is very worrying since the bulk of the nation's active human resource base fall into this age group. It is even anticipated that if measures are not put in place to reduce HIV new infections, the number of people living with HIV/AIDS could reach 500,000 by 2015 (National AIDS Control Programme, GHS, 2005). This has resulted in government spending huge sums of money on HIV/AIDS-related activities as presented in table 1.1 below.

Table 1.1: Government Expenditure on HIV/AIDS

| Year | Amount Spent |
|-------------|---------------------|
| 2009 | \$38,981,503 |
| 2008 | \$38,850,940 |
| 2007 | \$52,445,091 |
| 2006 | \$32,575,299 |
| 2005 | \$28,414,704 |
| 2004 | N/A |
| 2003 | \$237,100,000 |
| 2002 | \$108,300,000 |
| 2001 | N/A |
| 2000 | N/A |

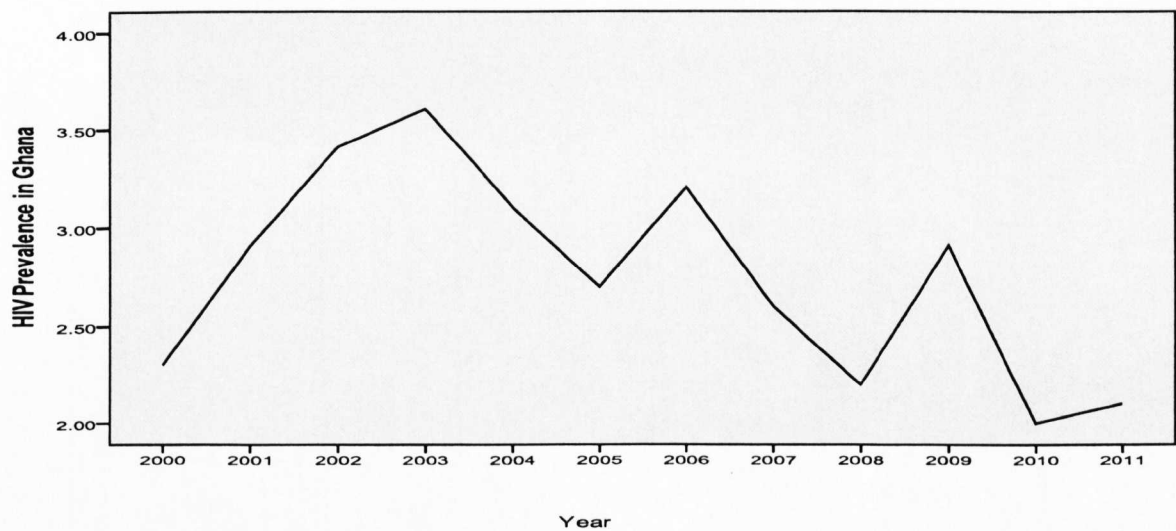
Source: (NACP, 2009; GAC, 2010; UNAIDS, 2004)

The social and economic consequences of the AIDS epidemic are widely felt, not only in the health sector but also in education, industry, agriculture, transport, human resources and the economy, in general. The AIDS epidemic in Ghana continues to devastate communities, rolling back decades of developmental progress. The challenge, therefore, is to reduce the annual toll of new HIV infections by enabling individuals to protect themselves and others. Since the search for drugs to reduce HIV new infections still continues, and funding for Ghana health sector continues to dwindle (Ghana Health Service, 2009), Ghana needs to develop effective social marketing intervention programmes to change HIV/AIDS related behaviours. Fishbein (2000) argues that although there has been enormous progress in prolonging and improving the quality of life of those infected with HIV, there is still neither a

cure for, nor a vaccine to prevent this disease. He asserts that it has become increasingly clear that preventing the transmission and acquisition of HIV must focus upon behaviour and behavioural change. Kelly et al. (1993) also point out that the task confronting the behavioural science is to develop theory-based intervention programmes to reduce ‘risky’ and increase ‘healthy’ behaviour. Pope Benedict XVI in an interview asserts that “changing attitude to sexuality is the proper way to combat HIV/AIDS” (BBC, 2010).

In Ghana, data on HIV prevalence in the ten regions indicates that despite huge expenditure on HIV/AIDS by government, Ghana has failed to realise a consistent decline of HIV new infections as presented in figure 1.1.

Figure 1.1: HIV Prevalence (%) in the ten regions in Ghana



Source: NACP, 2012.

In Ghana, forty sentinel sites of 17 Rural and 23 Urban, which have been established by Ghana Health Service (GHS) to provide strategic data on the trend of HIV new infections indicates that no site has recorded a consistent decline of HIV infection (NACP, 2012).

Evidence in table 1.1 and figure 1.1 suggest that there is no relationship between government expenditure on HIV/AIDS and the prevalence rate in Ghana. Though government highest expenditure on HIV/AIDS related activities was in 2003, the year recorded the highest prevalence rate (3.6%). Paradoxically, the year 2008 saw a reduction in government expenditure on HIV/AIDS yet the year recorded a low prevalence rate (2.2). Therefore, one could infer that, there could be some factors other than inadequate government expenditure hindering Ghanaians from adopting HIV/AIDS protective behaviours.

There have been a number of social marketing intervention programmes on HIV/AIDS in Ghana by several governmental and non-governmental institutions including Ghana AIDS Commission, National AIDS Control Programme (NACP), and Ghana Social Marketing Foundation (GSMF). Given the number of communications to prevent HIV new infections that have been delivered over the years, there should be considerable knowledge about the impact of these communications (Albarracin et al. 2003). However, there has been no precise knowledge of the general impact of different types of persuasive arguments designed to increase the effectiveness of the interventions (Albarracin et al. 2003). It is important to note that, for intervention programmes to be effective, it must extend to consist arguments designed to induce favourable attitudes, norms, perceived behavioural control and behavioural skills (Albarracin et al. 2003). Evidence in figure 1.1 above seems to suggest that social marketing interventions aimed at changing HIV/AIDS-related behaviour in Ghana have not been successful.

Kotler and Lee (2008), define social marketing as a process that applies marketing principles and techniques to create, communicate, and deliver value in order to influence target audience behaviour that benefits society (public health, safety, the environment and

communities) as well as the target audience. French and Blair-Stevens (2010) define social marketing as the systematic application of marketing alongside other concepts and techniques to achieve specific behavioural goals, for a social good. Kotler and Lee (2008), posit that to be effective in the field of social marketing and influence behaviour change, marketers must understand what their target audiences perceive to be the barrier to change. Behaviour change, therefore, involves understanding people and their motivations, and developing strategies that lead to real change. Hubley (1993) asserts that behaviour change communication is directed at changes in health behaviour. It is sometimes referred to as information, education, and communication (IEC), a term originating from family planning and more recently, AIDS control programmes in developing countries. It is increasingly being used as a general term for communication activities to promote health.

1.1 Rationale for the Study

In Ghana, the implementations of social marketing intervention programmes on HIV/AIDS have, generally, created awareness (about 90% awareness level) but have not had a corresponding change in HIV-related behaviour patterns (GAC, 2010; NACP, 2006). It is, therefore, not surprising that HIV prevalence rates have not seen a consistent decline since 2000 (NACP, 2012). This has resulted in Government spending huge sums of money on HIV/AIDS-related activities. Since the search for drugs to reduce HIV new infections still continues and funding for Ghana's health sector continues to dwindle (GHS, 2009), Ghana needs to develop effective social marketing intervention programmes to change HIV/AIDS-related behaviour. French and Blair-Stevens (2010) indicate that having an understanding of the use of theory (particularly behavioural theory) is important, as it can strengthen and enhance the development and delivery of social marketing interventions and, therefore, ultimately improve and strengthen their potential impact and effectiveness. Maibach et al,

(2002), Thackeray and Neiger (2000), and Frazee et al. (2007) contend that behavioural change theories can help social marketers to efficiently plan campaigns by adding theory-based campaign elements to the social marketing framework.

The extant literature suggests that most of the applications of behaviour change models to social marketing have been done in developed countries (Abrarracin et al. 2003; Sowers et al., 2007; Uhrig et al., 2010). Cismaru, et al., (2008) researched into understanding health behaviour and proposed an integrated model that uses Protection Motivation Model (Rogers, 1975), Extended Parallel Process model (Witte 1992) and Transtheoretical Model (Prochaska et al., 1992), and conclude that the integrated model has the potential to provide a better understanding of the decision-making process that people use when they decide whether or not, to follow particular recommended health behaviour.

In Ghana, the limited number of research carried out on HIV/AIDS has concentrated mostly on awareness creation and impact assessment (Tweneboah-Koduah, 2001; Benefo, 2004, Awusabo-Asare and Anarfi 1997; Awusabo-Asare, et al. 1993; Demographic Health Survey, 1998, 2003, 2008; Adu-Mireku, 2003; Panford, et al. 2001; Anne-Marie, et al. 2004). Although social marketing experts have indicated a need to apply theories to optimise campaign effectiveness (Andreasen, 1997; Thackeray et al. 2000; Frazee et al. 2007 and Kelly et al. 1993), it is surprising that so little (if any) empirical research has been conducted on the topic, especially on its application to HIV/AIDS prevention in Ghana in sub-Saharan Africa. To fill this gap, this research sought to understand how theories of behaviour change could be employed to design effective social marketing intervention programmes for HIV/AIDS preventions in Ghana.

1.2 Aim and Objectives of the Study

The aim of this new research effort is to determine the effectiveness of social marketing intervention programmes in reducing HIV new infections in Ghana. The study focused on developing or employing behavioural change model to design effective social marketing interventions on HIV/AIDS in Ghana.

The study addresses the following objectives:

1. To determine the nature and extent of social marketing interventions on HIV/AIDS in Ghana.
2. To ascertain the impact of the social marketing interventions on HIV/AIDS related behaviours in Ghana.
3. To evaluate the behavioural intentions, knowledge and skills, behavioural performance and other environmental factors which could enhance or prevent Ghanaians from adopting recommendations of social marketing interventions on HIV/AIDS.
4. To determine the perceived norm, personal agency (self efficacy) and attitude of Ghanaians toward HIV/AIDS intervention programmes.
5. To investigate the response efficacy, perceived susceptibility and perceived severity of Ghanaians towards HIV/AIDS.
6. To recommend an integrative behaviour model that could be used to design effective social marketing intervention programmes on HIV/AIDS in Ghana.

1.3 The Concept of Originality in a PhD Thesis

Marshall and Rossman (2011) posit that a PhD could make a contribution in three main ways.

These are significance for:

- knowledge
- practical and policy problems and
- action

Flowing from the three-point framework for knowledge addition, this PhD thesis after filling the gap in literature adds new knowledge to the existing knowledge as follows:

- i. The study, for the first time, has applied Integrated Behavioural Model to social marketing intervention programmes on HIV/AIDS in the Ghanaian context and found all the constructs to be applicable to the Ghanaian situation except the relationship between individual intention and perceived susceptibility as proposed by the model. The contribution of this research constitutes an extension of previous model that will expand generalisations or fine-tune the theoretical propositions of the model (Marshall, & Rossman, 2011). Fishbein and Cappella, (2006) and Champion and Skinner, (2008) posit that perceived susceptibility is necessary before intention to changing risky behaviours can occur. They further explain that, if perceived susceptibility is negative, the individual will develop negative attitude towards the recommended behaviour and therefore, will not form an intention to adopt HIV-protective behaviours. However, in the Ghanaian context, the findings do not support this and indicate that, respondents' perceived susceptibility of getting HIV/AIDS does not affect their intentions to protect themselves against the disease.
- ii. Mathieson *et al.* (2001) conclude that age is a measure of personal resources or perceived behavioural control. Morris and Venkatesh (2000) argue that age reduces perceived behavioural control because self-efficacy and cognitive skills decrease as people grow older (Brigman and Cherry, 2002). However this study reveals that, in

the Ghanaian context, all respondents irrespective of their age groups have the same perceived behavioural control when it comes to HIV-protective behaviours.

- iii. Weinstein (1993) and Montano and Kasprzyk, (2008) assert that, the more one believes that performing an HIV/AIDS protective behaviour will lead to “good” outcomes and prevent “bad” outcomes, the more positive one’s attitude toward performing the behaviour would be. This would be true for such HIV/AIDS-related behaviours as using condom, abstinence from sex, keeping to one sexual partner and getting screened for HIV/AIDS. However, in Ghana, the findings do not support this and indicate that, though most people do believe in abstinence as a means of protecting themselves against HIV/AIDS infection, there is a negative correlation between the respondents’ response efficacy and their action to abstain from sex.
- iv. Finally, this research contributes to policy by bringing out the devastating effects of HIV/AIDS on the Ghanaian economy and recommends strategies that could be implemented by Ghana government to reduce HIV new infections. Marshal and Rossman (2011) posit that the significance of a study for policy can be developed by discussing formal policy development in that area and by presenting data that shows how often the problem occurs and how costly it can be.

1.4 Structure of the Thesis

The thesis has seven chapters made up of an introduction, contextual background information, literature review, research design and methodology, data analyses and results, discussion of results, conclusions and theoretical/managerial implications, and future research.

The chapter 1 introduces the study and provides a general overview. It discusses the rationale of the study, the originality of this doctoral thesis, research aim and objectives, and structure of the thesis. The chapter 2 provides contextual background information of the study. Specifically, the chapter provides information on the profile, Socio-economic growth and overview of the health sector in Ghana. It also highlights Ghana Government's health policies, Ghana's HIV/AIDS profile, impact of HIV/ AIDS on the Ghanaian economy, interventions to reduce HIV transmission in Ghana and profile of institutions involved with HIV/AIDS in Ghana. The chapter 3 reviews literature in the subject area of the thesis including definitions and discussion of social marketing, principles of social marketing, social marketing interventions strategies on HIV/AIDS, the expanded role of social marketing, behavioural change theories and the role they play in social marketing interventions.

Chapter 4 explains the various quantitative and qualitative concepts of data collection and analysis techniques, and indicates the methodological stance adopted to achieve the aim and objectives of this research. In chapter 5, a selection of prevailing qualitative and quantitative analysis techniques based on the objectives of the research is used to investigate the relationships between variables that affect the behaviour of respondents in adopting social marketing intervention programmes on HIV/AIDS in Ghana. Chapter 6 discusses the various findings of the research in line with previous studies in the subject area. Finally, chapter 7 presents the summary, conclusion, and theoretical/managerial implications of the study, and indicates research limitations and further research.

1.5 Summary

In Ghana, implementations of social marketing interventions by several institutions on HIV/AIDS have generally created awareness but have not had a corresponding change in HIV-related behaviour pattern. This has resulted in government spending huge sums of money on HIV/AIDS-related activities. Although social marketing experts have indicated a need to apply theories to optimise campaign effectiveness, it is surprising that so little empirical research has been conducted on the topic, especially on its application to HIV/AIDS prevention in Ghana. To fill this gap, this research sought to understand how theories of behaviour change could be employed to design effective social marketing intervention programmes for HIV/AIDS prevention in Ghana. The next chapter provides contextual background information of the study.

Chapter 2

Background Information

2.0 Introduction

The previous chapter introduces the study and provides a general overview. It discusses the rationale of the study, the originality of this doctoral thesis, research aim and objectives, and structure of the thesis. This chapter provides the contextual background information of the study. It reviews the Socio-economic growth, the Government of Ghana's healthcare policies, Ghana's HIV/AIDS profile, impact of HIV/ AIDS on the Ghanaian economy, intervention strategies designed to reduce HIV transmission, and institutions involved with HIV/AIDS prevention in Ghana.

2.1 Profile of Ghana

Ghana is located on West Africa's Gulf of Guinea, only a few degrees north of the Equator. The country is bordered by three French-speaking countries – Togo to the east, Burkina Faso to the north and north-west, and Cote d'Ivoire to the west. To the south is the Gulf of Guinea, which has a coastline of 560 kilometres. Half of the country lies less than 152 metres (500 ft.) above sea level and the highest point is 883 metres (2,900 ft.). The 537-kilometre coastline is mostly a low, sandy shore backed by plains and shrubs and intersected by several rivers and streams, most of which are navigable only by canoe (Gockings, 2005). A tropical rain forest belt, broken by heavily forested hills and many streams and rivers, extends northward from the shore, near the Cote d'Ivoire frontier. Ghana is a tropical country, with warm and comparatively dry in the eastern coastal belt. The south-western part of the country

is hot and humid and the north, hot and dry. There are two distinct rainy seasons in Ghana: May-June for the south and August-September for the north. The two rainy seasons, sometimes, tend to merge.

Figure 2.1: Map of Ghana



Source: Ghana Web (2011)

The country usually experiences harmattan in January and February every year. Ghana has the largest man-made lake in the world called the Volta. The lake stretches over 240 miles and it covers about a sixth of Ghana's surface area (Gockings, 2005). Apart from providing transportation and generating most of the country's electricity, the lake also provides water for irrigation and sustains an important fishing industry in Ghana. Ghana is blessed with a number of natural resources including cocoa, gold, diamonds, manganese and bauxite. The country is divided into ten (10) administrative regions namely: Western, Central, Greater Accra, Volta, Eastern, Ashanti, Brong Ahafo, Northern, Upper East and Upper West, as presented in figure 2.1. The ten regions in Ghana are further sub-divided into 212 municipal and district assemblies (Ministry of Local Government and Rural Development, 2012).

2.1.1 The Population of Ghana

The 2010 housing census in Ghana put the total population of Ghana at 24,658,823 comprising 12,024,845 (48.8%) males, and 12,633,978 (51.2%) females (Ghana Statistical Service, 2011). The regional distribution of the Ghanaian population is presented in table 2.1.

Table 2.1: The Regional Distribution of Ghanaian Population

| Region | Total | Male | Female |
|---------------|------------|------------|------------|
| Western | 2,376,021 | 1,187,774 | 1,188,247 |
| Central | 2,201,863 | 1,050,112 | 1,151,751 |
| Greater Accra | 4,010,054 | 1,938,225 | 2,071,829 |
| Volta | 2,118,252 | 1,019,398 | 1,098,854 |
| Eastern | 2,633,154 | 1,290,539 | 1,342,615 |
| Ashanti | 4,780,380 | 2,316,052 | 2,464,328 |
| Brong Ahafo | 2,310,983 | 1,145,271 | 1,165,712 |
| Northern | 2,479,461 | 1,229,887 | 1,249,574 |
| Upper East | 1,046,545 | 506,405 | 540,140 |
| Upper West | 702,110 | 341,182 | 360,928 |
| Ghana | 24,658,823 | 12,024,845 | 12,633,978 |

Source: Ghana Statistical Service (2011)

Ethnically, Ghana is divided into small groups, speaking more than 50 languages and dialects. Among the major linguistic groups are the Akan, which include the Fante along the coast and the Ashanti in the forest region north of the coast; the Guan, on the plains of the Volta River; the Ga- and Ewe-speaking peoples of the south and south-east; and the Moshi-Dagomba-speaking tribes of the northern and upper regions. English, the official and commercial language, is taught in all schools in Ghana (Modern Ghana, 2013).

2.2 Socio-Economic Development of Ghana

Due to socio-economic challenges faced by the country since independence, drastic economic policies were needed to put the country in shape. Therefore, in December 1982, the government implemented the International Monetary Fund (IMF)'s led Economic Recovery Programme (ERP) aimed to stimulate exports, cut government subsidies on imports, reduce deficit, and collect revenue more efficiently. Rather than waiting for IMF to lay down conditions, the government drew up a programme of financial reform that closely followed standard IMF austerity programmes but was tailored to Ghanaian Reality (Gocking, 2005). In October 1983, the country finally accepted a clean devaluation, with the Ghana cedi depreciating from 2.75 to 3.00 cedis to 1 US\$, and by 1986, the cedi had further depreciated to 15.00 cedis to 1 US\$. The ERP led to the huge increase in prices as government removed subsidies and surcharges were imposed on most imports (Gocking, 2005). Between 1984 and 1986, Ghana was able to convince the western countries that she could deal "faithfully" with its creditors, and as a result, a number of these nations wrote off some of the debts owed them. Inflation fell from 120% in 1983 to 10.4 in 1985 (Shillington, 1992). This turnaround was a considerable achievement, as it came in the face of major challenges over which the government had no control.

In 1986, the government implemented the ERP II, and decided to divest itself of many of the state enterprises that were a drain on the economy. Undoubtedly, the most controversial aspect of ERP II was the intention to reduce the workforce in the civil and public services. The civil service lost 12,000 workers per year, and public enterprises lost about 40,000 - 50,000 workers, and Cocobod lost 20,000 of its employees (The Great Alliance, 1996). Nevertheless, by the end of the 1980s even the critics of ERP were willing to concede that the ERP had brought about a significant overall improvement in the country's economy. There had been a reversal of economic decline and resumption of growth. Chronic budget crisis had ended and a significant rehabilitation of the country's infrastructure was underway (Aryeetey & Kanbur, 2008). However, critics could point to the lack of any real structural change in how the economy functioned, as the country was still as dependent as ever on a few export crops. Undoubtedly, the most serious criticism of the ERPs was that whatever their macro-economic success, they did very little for the average Ghanaian. The Programme of Action to Mitigate the Social Cost of Adjustment (PAMSCAD), which was introduced by the government in 1989 was an indication that it did recognise that the lot of the underprivileged had not improved (Gocking, 2005).

2.2.1 The Fourth Republic

The coming into force of the new constitution with the inauguration of the Fourth Republic and the installation of the popularly elected president of Ghana on January 7, 1993, opened a new chapter in Ghana. In spite of the heat of partisan politics, the country's political climate remained encouragingly peaceful on the whole. The essential smoothness of the transition from military to elected government impressed foreign donors, so that promises of assistance for 1993-94 significantly exceeded the \$1.7 billion that the government had anticipated (West Africa, 1993). The 1994 budget was an attempt by the government to be more realistic about

what the economy could achieve, but once again there were serious shortfalls that led to growth deficits, the government borrowing from local banks, and a reduction in the amount of capital for private investment (Gocking, 2005). To overcome its financial challenges, the government introduced a value-added tax (VAT) of 17.5% that was to be levied on services and retail transactions excluding education, health, foodstuffs, financial services, and some categories of equipment. The introduction of VAT was met with some resistance and as a result by June 1995 the VAT law and regulations were repealed and the previous system of indirect taxation restored. The government, however, re-introduced VAT in 1999 after the rate was reduced from 17.5% to 10%.

In 2001, the government increased fuel prices by 60% and shortly afterwards, sought to soften this blow to the public by raising the minimum wage from 4,200 to 5,500 cedis a day (Daily Graphic, 2001). However, the most momentous decision for the government was over whether Ghana should join the IMF/ World Bank Highly Indebted Poor Country (HIPC) initiative that launched in 1996 in response to the increasing indebtedness of many poor countries and their inability to service their debts (West Africa, 2001a). To the government, struggling with a debt of around \$6 billion, an inflation rate of over 40% when it assumed office in 2001, and a cedi that had depreciated by over 100% the previous year, the HIPC initiative was too generous an offer to turn down. Almost immediately after joining the HIPC initiative, there was improvement in the country's overall economic standing. The Cedi's rate of depreciation slowed down considerably, to around 2.5% to 3.0% per annum (West Africa, 2001b). These achievements came in spite of continuing weak world prices for Ghana's two most important exports, cocoa and gold. In January 2003, well before the next election, fuel prices rose by almost 100%. The increase itself was not unexpected, but its size came as a shock. In one swoop, the government sought to obtain full price recovery for the

petroleum that Ghana was importing. The opposition maintained that this had been dictated by the IMF which was unhappy with the government's economic performance and also wanted an increase in VAT (Daily Graphic, 2003). The large increase in fuel prices was an attempt to make the latter unnecessary.

Indeed, the last two decades have seen steady and significant economic growth in spite of considerable instability in macro-economic performance and a growing dependence on aid and other foreign inflows. An average of 4.9% GDP growth rate and per capita GDP growth of about 2.9% have been recorded for the best part of the period (Aryeetey and Kanbur, 2008). The economy of Ghana has experienced positive growth since 2001 as presented in table 2.2.

Table 2.2: Ghana's Real GDP Growth Rate

| Year | Real GDP growth rate |
|-------------|-----------------------------|
| 2011 | 13.6 |
| 2010 | 6.0 |
| 2009 | 4.7 |
| 2008 | 7.3 |
| 2007 | 6.3 |
| 2006 | 6.0 |
| 2005 | 5.8 |
| 2004 | 5.8 |
| 2003 | 5.2 |
| 2002 | 4.5 |
| 2001 | 4.2 |

Source: Ministry of Finance, (2007, 2011)

Though the Ghanaian economy has performed well since 2001, fundamental vulnerabilities remain. Solid macro-economic management coupled with major debt relief, large inflows of donor resources and relatively high cocoa and gold prices have been the keys to the steady

improvements in real GDP growth, which in 2004, topped 5.8% for the first time in a decade and reached 7.3% in 2008. Further debt relief, continued large aid inflows, favourable commodity prices and \$4 billion in gross annual remittances put Ghana in a stronger balance of payments position (U.S. Dept. of States, 2010). Ghana was recognised for its economic and democratic achievements in 2006, when it signed a \$547 million anti-poverty compact for five years with the United States' Millennium Challenge Corporation. The compact focused on accelerating growth and poverty reduction through agricultural and rural development. The compact had three main objectives: enhancing the profitability of commercial agriculture among small farmers; reducing the transportation costs affecting agricultural commerce through improvement in transportation infrastructure, expanding basic community services and strengthening rural institutions that support agriculture and agribusiness. The compact was expected to contribute to improving the lives of one million Ghanaians (U.S. Dept. of States, 2010).

A range of macro-economic indicators improved significantly in 2010. Buoyant global prices for gold and cocoa, combined with strong portfolio and other investment inflows, contributed to a build up in gross reserve cover to about 3.5 months of imports, up from 2.8 months at end-2009. The cedi strengthened and appreciated by 0.1%, 2.2% and 5.4% against the US dollar, the Pound Sterling, and the Euro, respectively (Ministry of Finance, 2011). With the collective effort of Ghanaians towards good governance, Ghana has now joined the league of middle-income countries (Ministry of Finance, 2011) and has found oil in commercial quantity. Even though, the Ghanaian economy has experienced significant growth since 2001, the relationship between economic growth and most important social concerns, poverty, has been unclear. The perception is that the number of people living below the poverty line has not changed in tandem. Thus, despite the sustained per capita growth accompanied by some

measured reduction in income poverty, levels of poverty remain high (Aryeetey and Kanbur, 2008). Key economic challenges of the country under current government include: overcoming infrastructure bottlenecks, especially in health, energy and water; poor management of natural resources; improving human resource capacity and development; establishing a business and investment climate that encourages and allows private sector-led growth, and privatising remaining state-owned enterprises, several of which are significant budget liabilities (Ministry of Finance, 2011). Since, this research is situated in the health sector; the next sub-sections present the general overview of the Ghanaian health sector.

2.3 The Ghana Health Sector

Prior to the introduction of modern or western healthcare systems into Ghana by the British rule, the country's healthcare systems, at the time, were described as focusing on hospital-based clinical care. Primarily designed to serve expatriate civil servants and merchants, most health facilities were concentrated on the coast or in port towns and areas with commercial activities, with focus on sanitation activities in towns and cities (Kunfaa, 1996). Soon after the immediate post-independence period, the Ghana government started addressing issues of equity in health care by expanding the availability of hospitals and health centres to cover much more of the countryside. However, these facilities were still not equitably distributed (Kunfaa, 1996) and in the 1970s and mid-1980s, the frequent coups d'états and changes in government in Ghana, contributed to severe economic decline and reductions in the resources available for improving the health care sector. This resulted in poor service conditions for health workers and a rapid decline in their morale (The World Bank, 1994). In 1979, an attempt was made by the government to design Primary Health Care (PHC) Policy and Strategy. This was meant to move towards developing district health teams and district-based health service systems in order to re-focus priorities towards basic clinical and prevention

oriented services (Kunfaa, 1996). In 1985, the government introduced user-fees (called Cash and Carry) into the health services marking a significant shift in health policy towards cost recovery, decentralisation of management and rationalisation of the health system (Dovlo, 2005). In the early 1990s, Ghana began re-structuring its health sector, including developing a basic minimum package of services on PHC including reproductive health, decentralising greater management and financial responsibility to districts, de-linking of health service delivery from the civil service, and reviewing the Ministry of Health's (MOH) organisational structure to reflect a shift from vertical systems to a more functional horizontal system. In October 1996, a legislation on the "Ghana Health Services (GHS) and Teaching Hospitals (1996) Act"-Act 525 that provide legal backing to underlying institutional changes in the health sector reforms was enacted (Government of Ghana, 1996).

2.3.1 Policy Issues in the Health Sector

Financing health care remains a challenge to the Ghana healthcare sector and as a result, the government introduced a drug costs recovery programme (called Cash-and-Carry) into the Ghana healthcare system in 1985. In 2003, the government introduced the National Health Insurance Scheme (NHIS) (Ghanaweb.com, 2011). The NHIS now covers about half the population (11.3 million Ghanaians), and provides a vastly more accessible and comprehensive health service unmatched in the history of Ghana. The NHIS provides free healthcare for children below 18, the elderly over the age of 70, and all pregnant women. Under the NHIS, HIV positive individuals receive highly-subsidised anti-retroviral medicines. The NHIS has led to a three-fold increase in hospital attendance in some parts of the country. Overall, Out Patients Department (OPD) attendance increased from a yearly average of 0.38 per capita in 2001 to 0.7 per capita in 2007 and in areas such as the Brong Ahafo region, OPD attendance has reached the 1.02 mark (Ghanaweb.com, 2011).

2.3.2 Ghana Government Health Policies of 1997-2013

In 1997, the first set of reforms tagged “The Medium Term Health Strategy (MTHS) was introduced with the aim of increasing access to health, improving the quality and efficiency of healthcare delivery, fostering partnerships, and improvement in healthcare financing (MOH, 1997). The main priority areas of MTHS among other things included reproductive health programmes, prevention and control of infections with epidemic potential and health promotion such as HIV/AIDS and Insecticide Treated Nets (ITN) usage. To ensure that programme funds were efficiently and economically utilised, the Donor Partners (DPs) pushed for financial management reforms in the Ministry of Health (MOH) to address the weaknesses in its budgeting, accounting, reporting, control and audit systems. As a result, a new policy known as the Accounting, Treasury and Finance (ATF) manual was introduced. At the end of the implementation period for MTHS, the managers of the programme concluded that factors beyond the remit of the healthcare system contributed significantly to the relatively slow improvement in the health status of Ghanaians. This included: poverty, poor nutrition of vulnerable groups, low literacy rates, especially among women, a high population growth rate, limited access to safe water and sanitation, and the emergence of new infectious agents such as HIV/AIDS (MOH, 1997).

The end-term review of the implementation of the Medium Term Health Strategy from 1997-2001, acknowledged the significant improvement made within the sector. Remarkable achievement was made in several areas of public health delivery including immunisation coverage with a corresponding reduction in maternal and child mortality. However, there were problems with other areas such as HIV/AIDS, malaria, TB and Guinea Worm. The

inadequacy of attention that these priorities were given in work programmes at the lower levels had been identified as a reason for their persistence. Finally, sector financing from both government and donors were still below expectation even though internally-generated funds continued to increase exceeding projected figures.

The Second Health Sector Programme of Work popularly known as “5YPOW 2002-2006”, was introduced to consolidate the gains made during the first Five-Year Programme of Work (1997 – 2001) and apply the lessons learned to finding new solutions. The 5YPOW 2002-2006 links health more closely to poverty reduction through the Ghana Poverty Reduction Strategy (GPRS). The program’s overall goals was to help reduce health inequalities in Ghana – between the North and South, urban and rural areas, as well as inequalities linked to gender, education, and disability. The 5YPOW 2002-2006 was intended to play a key role in the national multi-sectoral response to HIV/AIDS (MOH, 2002).

Following from the discussions above, the government set itself to achieve the following priority areas in the 5YPOW 2002-2006:

- (i) Deal with the HIV/AIDS threat using the national HIV/AIDS control strategy.
- (ii) Shift from facility-based services by emphasising community-based care.
- (iii) Reduce financial barriers by abolishing the cash-and-carry system, thereby ensuring that no one lacking funds at the time of need is denied essential health care.
- (iv) Reform-financing arrangements for the entire sector by replacing the requirement to pay at the time of service with prepayment and insurance arrangements.
- (v) Increase the use of non-government and private health providers, reflecting the government’s focus on private sector led development

(vi) Emphasise control of Malaria, TB, and the elimination of Guinea Worm, and strengthen reproductive, maternal and child health.

(vii) Improve staff motivation and health worker incentives

(viii) Undertake inter-sectoral collaboration for health related issues like sanitation and nutrition.

In the implementation of both the MTHS and the POW 2002-2006, the Sector Wide Approaches (SWAPs) was adopted as the implementation framework in which all partners, including external partners and technical agencies of the Ministry of Health (MOH) were supposed to support a single-sector policy, (i.e. common sector programme and agreed expenditure) under the leadership of the Government of Ghana (GoG). The rationale for these initiatives, it is believed, was aimed at improving the efficiency of resource utilisation and scaling up progress of outcomes in the sector (MOH, 2002). Though the strategic objectives of the POW and related conceptual framework guiding health sector development recognised the need for inter-sectoral action, actual implementation focused on delivery of health care services. Very little attention was given to mobilising individuals, communities and sectors to promote good health, and to ensuring healthy environments where people live, go to school, and work. Similarly, inadequate attention was given to the rehabilitation of the disabled, and even in the area of medical care, the focus was on allopathic services and to a more limited extent, on the development of traditional medicine. Very little attention was given to alternative medicines, and there was never a strategic approach to developing a local health industry to support health services and contribute to economic development (MOH, 2007). At the end of the 5YPOW (2002-2006) malaria was still the highest cause of morbidity in all age groups and sexes, Tuberculosis was on the increase and HIV/AIDS continues to erode the productive human resource capacity of the country (MOH, 2007).

The third Five-Year Programme of Work (2007 – 2011) was implemented to address the inadequacies of the POW 2002-2006). The 5YPOW linked health more closely to wealth creation (MOH, 2007). The policy addressed the broader determinants of health and the promotion of healthy lifestyles through good nutrition, regular physical exercise, recreation, rest and personal hygiene, emphasis on social environments where people live, go to school and work; emphasising potable water, sanitation, safe food, housing and roads, as means of promoting good health and prevention of diseases and injury. Further, the policy sought to build a pluralistic health service that recognises allopathic, traditional and alternative providers (both private and public). It also ensured access to quality health interventions for preventing disease and injuries, as well as for restoring the health of the sick and disabled. In that regard, the policy aims to provide comprehensive healthcare services comprising preventive, curative and rehabilitative services. Finally, the policy sought to promote a vibrant local health industry that supports effective, efficient, and sustainable service delivery, creates jobs and contributes directly to wealth creation to achieve national development objectives. This policy provided broad guidelines for the development of programmes by key stakeholders: Government, other Ministries Department and Agencies (MDAs), local authorities, such as district assemblies, the private sector, civil society organisations as well as communities and traditional leaders. To achieve the objectives of the 5YPOW (2007-2011), the following priority areas were being given greater emphasis and additional resources (MOH, 2007):

1. Ensuring healthier mothers and children through the scaling-up implementation of high impact and rapid delivery health interventions.
2. Promoting good nutrition across the life span.

3. Combating communicable diseases such as HIV/AIDS, malaria, tuberculosis, epidemic prone diseases and diseases that almost exclusively affect the poor such as Buruli ulcer, Guinea worm, leishmaniasis, lymphatic filariasis, etc.
4. Reducing risk factors associated with the non-communicable diseases such as tobacco and alcohol use, lack of exercise, poor eating habits and unsafe driving.
5. Strengthening surveillance and response to epidemics and emergencies.
6. Forging stronger, integrated, effective, equitable and accountable health systems.

The 5YPOW (2007-2011) has provided a new direction in the development of health in Ghana, and served as the basis for the development of Ghana's health sector policies and planning (MOH, 2012). Currently, implementation of the fourth five-year programme of work (2012-2016) is underway to address the inadequacies of the POW 2007-2011.

2.3.3 The structure of Ghana's Health System

Ghana's healthcare system operates mainly at three levels: national, regional and district, all of which are linked to levels of political administration of the country. Three key components of the health service structure exist at each of these levels, namely: health administration and support services, public/preventive health services and clinical care services. The district and basic operational level consists of: the District Health Administration (DHA) which is responsible for the overall management of health systems in the district; the district hospital (where available) is independently run by a management team and provides clinical and referrals services for smaller units within its catchment area. The district public health services include sub-district services- comprising health centres and posts, community-based health services, etc. While these are all part of the GHS, they are expected to also answer to the social services sub-committee of the district assembly, which is responsible for health

issues. The DHA, however, reports through the regional health administration to the GHS headquarters and receives its budget via the same route (Dovlo, 2005). The regional level consists of: a regional health administration responsible for management and the provision of logistical support to the entire political/administrative region; the regional hospital serves as a referral centre for district hospitals and provides clinical specialist services; the regional public health services include epidemic response units, reference laboratories and various other services (Dovlo, 2005).

The national level has several technical, managerial and policy units including:- The Ministry of Health (MOH) which is represented by the Minister and Directors responsible for policy development and monitoring. The Minister and the Directors deal with issues concerning human resources, planning, monitoring and evaluation, and technical advisory services. The MOH has four major executing agencies namely:

- (i) The Ghana Health Service (GHS) and the three teaching hospitals and their boards;
- (ii) Professional regulation boards (medical and dental, nursing and midwifery, pharmacy, etc.
- (iii) The Food and Drugs Board, the Private Hospitals and Maternity Homes Board
- (iv) The National Public Health Reference Laboratory, as well as specialised institutions such as the national psychiatric and leprosy hospitals (Dovlo, 2005).

This separation of the main executing agencies of GHS (primary and secondary care), and the Teaching Hospital Boards (tertiary care) from the ministry has been slow and has sometimes been difficult to re-define the roles of the national level officers. Key improvements brought about by health reforms include a higher share of health resources being allocated directly to the district level.

The creation of Budget and Management Centres (BMCs) in each viable unit with control over its own resources and planning has also created a bottom-up planning approach coordinated at regional level. Due to the inadequacy of health infrastructure in Ghana, the Minister of Finance and Economic Planning (MOFEP) indicated that the government will provide a number of infrastructures to enhance health delivery in Ghana. They include construction of three (3) regional hospitals, seven (7) district hospitals, five (5) Poly Clinics and rehabilitation of some district and regional hospitals (MOFEP, 2011). Evidence in Table 2.3 reveals that the country lacks both human capital and the needed health facilities to contain the ever-increasing demand on the healthcare sector. It is, therefore, important as a country to put the needed strategies in place to prevent new incidences of HIV infections in Ghana.

Table 2.3: Summary of Health Facilities in Ghana.

| Heath Facility | No. of Facility |
|---|-----------------|
| Teaching Hospitals | 3 |
| Regional Hospitals | 7 |
| Psychiatric Hospitals | 3 |
| Other Government Hospitals | 115 |
| Private Hospitals | 221 |
| Poly Clinics | 10 |
| Government Health Centres and Clinics | 1,123 |
| Private Health Centres and Clinics | 852 |
| Government Maternity Homes | 10 |
| Private Maternity Homes | 379 |
| Government Community-based Health Planning and Services | 285 |
| Private Community-based Health Planning and Services | 2 |

Source: Ministry of Health (2009)

2.3.4 The State of Workforce and Health facilities in the Ghanaian Health Sector

The health sector workforce has recorded significant improvements in education and production of health workers especially middle-level health cadres with enhanced salaries and incentives to motivate workers with recorded decline in staff attrition (MOH, 2009). However, some important issues remain to be addressed, including inadequate workforce and health facilities in the Ghanaian health sector. However, due to the disparity in the equitable distribution of skilled health workers along urban–rural and geographical axis, the precise pattern is not clear. The sector lacks a reliable information management system on human resource and existing databases are not regularly updated. The payroll data also has manifested discrepancies.

Table 2.4: Doctor to Patient Ratio in Ghana

| Region | 2009 | | 2008 | | 2007 | | 2006 | |
|---------------|----------------|-------------------------|----------------|-------------------------|----------------|-------------------------|---------------|-------------------------|
| | No. of Doctors | Doctor Population Ratio | No. of Doctors | Doctor Population Ratio | No. of Doctors | Doctor Population Ratio | No of Doctors | Doctor Population Ratio |
| Ashanti | 587 | 8,316 | 495 | 9,861 | 428 | 10,667 | 378 | 11,681 |
| Brong Ahafo | 135 | 16,794 | 103 | 22,012 | 96 | 22,479 | 83 | 25,365 |
| Central | 87 | 22,088 | 72 | 26,689 | 63 | 29,260 | 57 | 31,675 |
| Eastern | 148 | 16,132 | 134 | 17,817 | 128 | 18,141 | 104 | 22,019 |
| Greater Accra | 895 | 4,783 | 827 | 5,177 | 755 | 5,202 | 669 | 5,624 |
| Northern | 41 | 56,940 | 33 | 70,744 | 24 | 92,046 | 32 | 67,154 |
| Upper East | 27 | 37,603 | 30 | 33,843 | 30 | 33,111 | 34 | 28,897 |
| Upper West | 14 | 47,932 | 15 | 44,736 | 15 | 43,253 | 14 | 45,568 |
| Volta | 72 | 26,907 | 68 | 28,490 | 66 | 28,269 | 72 | 25,430 |
| Western | 76 | 33,623 | 78 | 32,761 | 71 | 33,794 | 71 | 32,746 |
| National | 2,082 | 11,649 | 1,855 | 13,074 | 1,676 | 13,683 | 1,514 | 14,732 |

Source: Ministry of Health (2009)

Although the holistic assessment has indicated that equity of distribution of essential cadres such as nurses is substantially improving (most likely because of effectively addressing this issue by MoH and GHS (MOH, 2009), the data captured in the tables 2.4 and 2.5 indicate doctor and nurse to patient ratio (i.e. number of patients to a doctor or nurse) in the ten regions of Ghana.

Evidence in tables 2.4 and 2.5 reveal that most nurses and doctors in Ghana are concentrated in the Ashanti and Greater Accra regions. Even in these two major regions, doctors and nurses can mostly be found in the regional capitals of Kumasi and Accra. This is a very worrying situation since majority of Ghanaians reside in the rural areas. In the Northern and Upper West regions, the situation is very startling since a doctor is responsible for 56,940 and 47,932 Ghanaians respectively. The Eastern region which happens to be the region with most HIV/AIDS patients also has a very high doctors and nurses to population ratio.

Table 2.5: Nurse to Population Ratio in Ghana

| Region | 2009 | | 2008 | | 2007 | | 2006 | |
|---------------|------------------|------------------------|------------------|------------------------|------------------|------------------------|------------------|------------------------|
| | Number of Nurses | Nurse Population Ratio | Number of Nurses | Nurse Population Ratio | Number of Nurses | Nurse Population Ratio | Number of Nurses | Nurse Population Ratio |
| Ashanti | 3,084 | 1,583 | 3,533 | 1,382 | 2,251 | 2,024 | 2,067 | 2,136 |
| Brong Ahafo | 1,581 | 1,434 | 1,940 | 1,169 | 1,099 | 1,099 | 1,034 | 2,036 |
| Central | 1,695 | 1,134 | 2,104 | 913 | 1,249 | 1,476 | 1,145 | 1,577 |
| Eastern | 2,537 | 941 | 2,454 | 973 | 1,977 | 1,173 | 1,831 | 1,251 |
| Greater Accra | 4,680 | 915 | 4,656 | 919 | 4,011 | 979 | 3,789 | 993 |
| Northern | 1,536 | 1,520 | 1,480 | 1,577 | 1,131 | 1,868 | 1,011 | 2,126 |
| Upper East | 1,106 | 918 | 1,051 | 966 | 798 | 1,243 | 757 | 1,298 |
| Upper West | 750 | 895 | 758 | 885 | 537 | 1,266 | 485 | 1,315 |
| Volta | 1,973 | 982 | 2,132 | 909 | 1,474 | 1,266 | 1,406 | 1,302 |
| Western | 1,749 | 1,461 | 1,753 | 1,458 | 1,197 | 1,993 | 982 | 2,368 |
| National | 20,691 | 1,172 | 21,861 | 1,109 | 15,724 | 1,454 | 14,507 | 1,537 |

Source: Ministry of Health (2009)

Even though, there has been a slight increase of doctors and nurses from 2006 to 2009 as indicated in the tables, the doctors and nurses to population ratio still remains very high to contain any HIV/AIDS new infections. It is therefore pertinent for this new research effort to recommend strategies for the prevention of new HIV/AIDS infections in Ghana.

The next sections provide information on the historical background of HIV/AIDS, the potential impact of AIDS, the interventions to reduce HIV new transmission in Ghana and profile the institutions involved in social marketing interventions on HIV/AIDS.

2.4 History and Background Information of HIV/AIDS

Before 1981, Kaposi's Sarcoma (KS) was a rare form of relatively benign cancer that tended to occur in older people. But by March 1981 at least eight cases of a more aggressive form of KS had occurred amongst young gay men in New York (Hymes, et al. 1981). At about the same time there was an increase, in both California and New York, in the number of cases of a rare lung infection *Pneumocystis carinii* pneumonia (MMWR Weekly, 1981a). This was noticed at the Centre for Disease Control (CDC) in Atlanta. A drug technician, Sandra Ford, observed a high number of requests for the drug pentamine, used in the treatment of *Pneumocystis carinii* pneumonia (PCP). Following this, the CDC in June 1981 published a report about the occurrence, without identifiable cause, of PCP in five men in Los Angeles (MMWR Weekly, 1981b). This report is sometimes referred to as the "beginning" of AIDS, but it might be more accurate to describe it as the beginning of the general awareness of AIDS in the USA. Few days later, following these reports of PCP and other rare life-threatening opportunistic infections, the CDC formed a Task Force on Kaposi's Sarcoma and Opportunistic Infections (University of California, 1997). Around this time a number of

theories emerged about the possible cause of these opportunistic infections and cancers. Early theories included infection with cytomegalovirus, the use of amyl nitrite or butyl nitrate 'poppers', and 'immune overload' (Avert.Org, 2010).

By 1982, the disease still did not have a name. Organisations were referring to it in different ways. The CDC, generally, referred to it by reference to the diseases that were occurring, for example lymphadenopathy (swollen glands), although on some occasions they referred to it as KSOI, the name already given to the CDC task force. In contrast some still linked the disease to its initial occurrence in gay men, with a letter in the *Lancet* calling it "gay compromise syndrome". Others called it GRID (gay-related immune deficiency), AID (acquired immunodeficiency disease), "gay cancer" or "community-acquired immune dysfunction". In June 1982, a report of a group of cases amongst gay men in Southern California suggested that the disease might be caused by an infectious agent that was sexually transmitted. By the beginning of July 1982 a total of 452 cases, from 23 states in the United States of America had been reported to the CDC. Later that month, the first reports appeared that the disease was occurring in Haitians, as well as haemophiliacs. This news soon led to speculation that the epidemic might have originated in Haiti, and caused some parents to withdraw their children from haemophiliac camps. The occurrence of the disease in non-homosexuals meant that names such as GRID were redundant. Until 1980, the human immunodeficiency virus (HIV) was unknown and transmission was not accompanied by signs or symptoms salient enough to be noticed. While rare, sporadic case reports of AIDS and sero-archaeological studies have documented human infections with HIV prior to 1970, available data suggest that the current pandemic started in the mid- to late 1970s. By the end of 1980, HIV had spread to at least five continents (North America, South America, Europe, Africa and Australia). During this period of silence, spread was unchecked by awareness or

any preventive action and approximately 100,000-300,000 persons may have been infected (Mann, 1989).

Human Immunodeficiency Virus (HIV) is the virus that causes Acquired Immune Deficiency Syndrome (AIDS). HIV destroys the biological ability of the human body to fight off opportunistic infections such as pneumonia and tuberculosis (TB). A person can be infected with HIV for a long time without showing any symptoms of the disease. Nonetheless, during that period before a person develops symptoms, he or she can transmit the infection through sexual contact to other people. An infected woman can also transmit the disease to her infant during pregnancy or delivery or while breastfeeding. HIV can also be spread by transfusions of contaminated blood and by sharing needles used for injections and drug use. AIDS itself is defined in terms of how much deterioration of the immune system has taken place as seen by the presence of opportunistic infections. Virtually all infected persons die from the disease. In Ghana, an individual is said to have developed HIV/AIDS when he or she presents with a combination of signs and symptoms including prolonged fever, chronic diarrhoea, significant weight loss, persistent cough, persistent skin infection, aggressive skin cancer and oral thrush (candidiasis) (GACP, 2001).

The acronym AIDS was suggested at a meeting in Washington, D.C., in July 1982 and by August this name was being used in newspapers and scientific journals. AIDS was first properly defined by the CDC in September 1982. An anagram of AIDS, SIDA, was created for use in French and Spanish. Doctors thought AIDS was an appropriate name because people acquire the condition rather than inherit it; this resulted in a deficiency within the immune system; and that it is a syndrome, with a number of manifestations, rather than a single disease (GACP, 2001). By the beginning of 1986, the name of the virus itself had become a political football as the French insisted on LAV (lymphadenopathy-associated

virus), while Dr. Robert Gallo's group from USA used HTLV-3 (human T-cell lymphotropic virus, type 3). However in May 1986, the International Committee on the Taxonomy of Viruses ruled that both names should be dropped. The dispute was resolved with a new name, HIV (Human Immunodeficiency Virus) (Coffin, 1986).

2.4.1 HIV/AIDS in Sub-Saharan Africa and Ghana

Today, HIV/AIDS has become a very serious problem as the search for a cure still continues. It is heartbreaking to know that more than 25 million people have died of AIDS worldwide since 1981 (UNAIDS, 2009). According to estimates from the UNAIDS Global Report 2010, around 30.8 million adults and 2.5 million children were living with HIV at the end of 2009. During 2009, some 2.6 million people became infected with HIV, including an estimated 370,000 children. Most of these children are babies born to women with HIV, who acquire the virus during pregnancy, labour or delivery, or through breast milk. The year also saw 1.8 million deaths from AIDS-related causes. The number of deaths probably peaked around 2004 and due to the expansion of antiretroviral therapy, declined by 19% between 2004 and 2009. By the end of 2009, the epidemic had left behind 16.6 million AIDS orphans (Avert.org, 2010). Around half of people who acquire HIV become infected before they turn 25, and AIDS is the second most common cause of death among 20 - 24 year olds (Patton G et al. 2009). The overwhelming majority of people with HIV live in low- and middle-income countries. Sub-Saharan Africa accounts for two-thirds of all infected people, followed by South and South-East Asia with the second highest number of people living with HIV. Sub-Saharan Africa has just over 10% of the world's population, but is home to 68% of all people living with HIV. An estimated 1.8 million adults and children became infected with HIV during 2009 - contributing to a total of 22.5 million people living with HIV in the region. Adult HIV prevalence varies considerably across sub-Saharan Africa - from 0.2% in

Madagascar to almost 26% in Swaziland. An estimated 1.3 million people died from AIDS-related illnesses in 2009. Antiretroviral therapy has had a significant impact on the number of deaths from AIDS; in Southern Africa alone the scale-up of treatment contributed to an 18% decline in AIDS-related deaths between 2004 and 2009. Women are more particularly affected by HIV in sub-Saharan Africa. Southern Africa accounts for around 40% of the global total of women living with HIV (UNAIDS, 2010).

The first case of AIDS in Ghana was diagnosed in 1986, and by the year 2004 approximately 400,000 Ghanaians were estimated to be HIV-positive (UNAIDS, 2004). Prevalence rates increased from an estimated 2.6% in 2000, to 3.6% in 2003, and 3.1% in 2004 (UNAIDS, 2004). The last population-based survey on HIV prevalence carried out in Ghana was through the Ghana Demographic Health Survey (GHDS) of 2003. Since then, HIV Prevalence in Ghana has been estimated based on sentinel surveillance of pregnant women attending Antenatal Clinic (ANC) and, most recently, through the Estimation and Projection Package (EPP) Modelling. The EPP modelling done in 2008 estimated the national HIV prevalence among adults to be 1.9% (range 1.7% - 2.2%) and urban and rural prevalence estimated at 2.3% and 1.7% respectively (GAC, 2011). The most recent sentinel surveillance done in 2011 indicated a national median HIV prevalence of 2.1% (NACP, 2012).

The HIV prevalence in Ghana varies with geographic areas, gender, age and residence. In 2010, in the 40 sentinel sites, HIV prevalence ranged from 0.4% in Krachi and Alibo (Rural) to 7.8% in Agomanya (Urban). In 2011, the highest was Cape Coast with 9.6% leaping from 2.2% in 2010 (NACP, 2012). Two sites had a prevalence rate above 5.0% in 2011 as compared with one site in 2010. The prevalence rate in the urban sites was higher than in rural sites. In 2011 five regions, namely, Central, Eastern, Greater Accra, Ashanti and Volta

recorded an increase in HIV prevalence; the Brong Ahafo prevalence stayed the same and the remaining four regions recorded a decrease from their 2010 figures (GAC, 2012). The Regional prevalence ranged from 0.3% in the Northern Region to 4.7% in the Central Region. In 2010, the prevalence was highest in 30-39 year age groups (2.8%) and lowest in 15-24 year age group, (1.5%). The prevalence in the young people aged 15-24 years dropped from 2.1% in 2009. In 2011, the prevalence was highest in the 30-34 year age group (2.9%) and lowest in the 20 - 24 year age group. The prevalence in the 15-24 year age group rose marginally to 1.7%, whilst that in the 15-19 year age group rose sharply to 1.9% (GAC, 2012). In Ghana, the most-at-risk populations (MARPs) to HIV/AIDS in Ghana include Sex Workers, Clients of Sex Workers, Injecting Drug Users and Homosexuals (Ghana Statistical Service, 2008; NACP, 2012).

2.4.2 Determinants of spread of HIV in Ghana

The studies that have informed the identification of key determinants of HIV in Ghana include the Ghana DHS (2008); Modes of Transmission Study (2009), and the HIV epidemic analysis of (2010). The key determinants of HIV in Ghana include the following factors:

- (i) **Marginalisation of Most at Risk Populations:** MARPs have difficulties accessing HIV prevention services due to stigma and discrimination, social hostility, fear of losing jobs and families and even verbal and physical violence. Legal barriers also hinder service providers from reaching these groups given the criminalisation of MARPs activities. The size of these populations is also not known and services may not be reaching a significant number of them. As a result, the MARPs continue to contribute a significant proportion of new HIV infections (GAC, 2011).

(ii) **Low condom use:** Although the awareness of HIV prevention in general and among the most at risk populations is high, this knowledge has not adequately been translated to behavioural change. The DHS 2008 indicated that only 25% and 45% of females and males respectively reported using condoms during high risk sex behaviour. Low condom use has been attributed to social-cultural stereotypes and beliefs, especially among the youth. For instance, the youth hold the perception that condoms are needed only if one has another sexual partner and they are unnecessary if one moves from casual to “serious” relationship. Periodic shortages of condoms also contribute to inconsistent condom use (GAC, 2011).

(iii) **Multiple concurrent partners:** DHS 2008 data shows that men tend to have more multiple sexual partners than women. About 1% of women reported having more than two (2) partners in the last 12 months during DHS (2008) compared to 1.1% during DHS 2003. On the other hand, the percentage of men reported having more than two (2) partners increased from 9.9% (DHS 2003) to 11.4% (DHS 2008). Secondly, the average lifetime partners are significantly higher among men than it is among women. This is partly attributed to the polygamous culture among some of the communities in Ghana. However, the practice exposes the partners to HIV infection.

(iv) **Stigma and discrimination:** HIV stigma and discrimination can be a hindrance to access to HIV prevention services resulting in exposure to HIV infection. HIV stigma and discrimination is a significant factor in Ghana. DHS (2008) shows that only 32% of women and 43% of men would buy fresh food from a shopkeeper living with HIV while 62% of women and 66% of men reported that an HIV positive teacher should be allowed to continue teaching. The percentage expressing accepting attitudes on all four measures of stigma and discrimination is just 11% of female and 19% of male aged 15-49. HIV-

related stigma hinders access to HIV services and consequently contributes to further new HIV infections.

- (v) **Gender:** Women are disproportionately affected by HIV. Men who are clients of sex workers and those with multiple sex partners act as bridge populations spreading HIV infection to their female partners. Male involvement in critical interventions such as consistent condom use and prevention of mother-to-child transmission of HIV is also limited. There is the need to empower women and to promote male involvement in preventing HIV infections among women.

2.4.3 The Potential Impact of HIV/AIDS

As indicated earlier in this chapter, about 270,000 Ghanaians are living with HIV/AIDS (GAC, 2010). The most significant issue is that HIV/AIDS affects persons in their prime (i.e. 15-49 years). The disease affects virtually all sectors of the economy and therefore, poses a real threat to national development and security. This section discusses the impact of HIV/AIDS on the Ghanaian economy.

2.4.3.1 The Impact on Health Sector

In all heavily- affected countries, the AIDS epidemic is amplifying the pressure on health sector resources. As the epidemic matures, the demand for care for those living with HIV rises, as does the toll of AIDS on health workers. In most sub-Saharan Africa countries, people with HIV-related diseases occupy more than half of all hospital beds (UNAIDS, 2006). Research in South Africa has suggested that, on average, HIV-positive patients stay in hospital four times longer than other patients (Inter Press Service News Agency, 2006). Due to unavailability of hospital beds in most affected countries in Sub-Saharan Africa,

hospitals tend to admit AIDS patients in the later stages of illness, thereby reducing their chances of recovery.

While AIDS is causing an increased demand for health services, large numbers of healthcare professionals are being directly affected by the epidemic. Botswana, for example, lost 17% of its healthcare workforce due to AIDS between 1999 and 2005. A study in one region of Zambia also found that 40% of midwives were HIV-positive (UNAIDS, 2006). Although the recent increase in the provision of antiretroviral drugs (which significantly delay the progression from HIV to AIDS) has brought hope to many in Ghana, it has however, put increased strain on healthcare facilities and workers. Providing antiretroviral treatment to everyone who needs it requires more time and training than is currently available in Ghana.

2.4.3.2 The Impact on Households

The toll of HIV and AIDS on households can be very severe. Although no part of the population is unaffected by HIV, it is often the poorest sectors of society that are most vulnerable to the epidemic and for whom the consequences are most severe. In many cases, the presence of AIDS causes the household to dissolve, as parents die and children are sent to relatives for care and upbringing. A study in rural South Africa suggests that households in which an adult had died from AIDS were four times more likely to dissolve than those in which no deaths had occurred (Hosegood V. et al., 2004). Much happens before this dissolution takes place: AIDS strips families of their assets and income earners, further impoverishing the poor. In Botswana for instance, it is estimated that, on average, every income earner is likely to acquire one additional dependent over the next five years due to the AIDS epidemic (UNAIDS, 2006). Ghana, like other Sub-Saharan African countries, is

experiencing the same problem, as individuals who would, otherwise, provide a household with income are prevented from working – either because they are ill with AIDS themselves or because they are caring for another sick family member. Such a situation is likely to have repercussions for every member of the family. Children may be forced to abandon their education and in some cases women may be forced to turn to sex work ('prostitution'). This can lead to a higher risk of HIV transmission, which further exacerbates the situation (GACP, 2001).

In 2009, AIDS contributed about 12% (140,547) of the total orphans in Ghana (GAC, 2011). It is needless to over-emphasise the trauma and hardship that children affected by HIV/AIDS are forced to bear. The epidemic not only causes children to lose their parents or guardians, but sometimes, their childhood as well. As parents and family members become ill, children take on more responsibility to earn an income, produce food, and care for family members. It is harder for these children to access adequate nutrition, basic healthcare, housing and clothing. AIDS claims the lives of people at an age when most already have young children. Therefore, more children in Africa, than anywhere else, have become orphans due to AIDS. Many children are now raised by their extended families and some are even left on their own in child-headed households. As projections of the number of AIDS orphans rise, some have called for an increase in institutional care for children. However, this solution is not only expensive but also detrimental to the children. Institutionalisation stores up problems for society, which is ill-equipped to cope with an influx of young adults who have not been socialised in the community in which they have to live. For example, it is the approach developed by church groups in Zimbabwe, in which community members are recruited to visit orphans in their homes, where they live with foster parents, grandparents or other relatives, or in child-headed households. The way

forward is prevention. Firstly, it is crucial to prevent children from becoming infected with HIV at birth, as well as later in life. Secondly, if efforts are made to prevent adults becoming infected with HIV, and to care for those already infected, then fewer children will be orphaned by AIDS in the future (Avert.org, 2010).

2.4.3.3 HIV/AIDS Impact on Education and Labour Force

There are numerous ways in which AIDS can affect education, but equally there are many ways in which education can help the fight against AIDS. The extent to which schools and other education institutions are able to continue functioning will influence how well societies eventually recover from the epidemic. A decline in school enrolment is one of the most visible effects of the epidemic. This in itself will have an effect on HIV prevention, as a good, basic education ranks among the most effective and cost-effective means of preventing HIV (World Bank, 2002). There are numerous barriers to school attendance in Africa. Children may be removed from school to care for parents or family members, or they may themselves be living with HIV. Many are unable to afford school fees and other such expenses – this is particularly a problem among children who have lost their parents to AIDS, and as a result often struggle to generate income. Studies have suggested that young people with little or no education may be twice as likely to contract HIV as those who have completed primary education (World Bank, 2002). In this context, the devastating effect that AIDS is having on school enrolment is a big concern. In Swaziland and the Central African Republic, it was reported that school enrolment fell by 25-30% due to AIDS at the beginning of the millennium (Global Campaign for Education, 2004).

HIV /AIDS is having a devastating effect on the already inadequate supply of teachers in African countries. For example, a study in South Africa found that 21% of teachers aged 25-

34 were living with HIV (UNAIDS, 2006) and that these teachers were likely to take periods of time off work. Those with sick families may also take time off to attend funerals or to care for sick or dying relatives, and further absenteeism may result from the psychological effects of the epidemic (World Bank, 2002). When a teacher falls ill, the class may be taken on by another teacher, may be combined with another class, or may be left untaught. Even when there is a sufficient supply of teachers to replace losses, there can be a significant impact on students' performance. The illness or death of teachers is especially devastating in rural areas where schools depend heavily on one or two teachers, as skilled teachers are not easily replaced. Tanzania has estimated that it needs around 45,000 additional teachers to make up for those who have died or left work because of HIV and AIDS. The greatest proportion of staff that has been lost, according to the Tanzania Teacher's Union, was very experienced, aged between 41 and 50 years (UNAIDS, 2006).

HIV/AIDS dramatically affects labour, setting back economic and social progress. The vast majority of people living with HIV in Africa are between the ages of 15 and 49 - in the prime of their working lives. AIDS damages businesses by squeezing productivity, adding costs, diverting productive resources and depleting skills. Company costs for healthcare, funeral benefits and pension fund commitments are likely to rise as the number of people taking early retirement or dying increases. Also, as the impact of the epidemic on households grows more severe, market demand for products and services can fall. Comparative studies of East African businesses have shown that absenteeism can account for as much as 25-54% of company costs (UNAIDS, 2003). A study in several Southern African countries has estimated that the combined impact of AIDS-related absenteeism, productivity declines, health-care expenditures, and recruitment and training expenses could cut profits by, at least, 6-8% (UNAIDS, 2003). Another study of thousand companies in Southern Africa found that 9%

had suffered a significant negative impact due to AIDS. In areas that have been hit hardest by the epidemic, it is found that up to 40% of companies reported that HIV and AIDS were having a negative effect on profits (Avert.org, 2010). In Ghana, a study of a Ghanaian firm indicates that AIDS-related illness and deaths to employees affect a firm by both increasing expenditures and reducing revenues (GACP, 2001).

One way in which AIDS affects the economy is by reducing the labour supply through increased mortality and illness. Amongst those who are able to work, productivity is likely to decline as a result of HIV-related illnesses. Government income also declines, as tax revenues fall and governments are pressured to increase their spending to deal with the expanding HIV epidemic. The ability of African countries to diversify their industrial base, expand exports and attract foreign investment is integral to economic progress in the region. By making labour more expensive and reducing profits, AIDS limits the ability of African countries to attract industries that depend on low-cost labour and makes investments in African businesses less desirable (Avert, 2010). The impact that AIDS has had on the economies of African countries is difficult to measure. The economies of the worst affected countries were already struggling with development challenges, debt and declining trade before the epidemic started to affect the continent. AIDS has combined with these factors to further aggravate the situation. It is thought that the impact of AIDS on the gross domestic product (GDP) of the worst affected countries is a loss of around 1.5% per year; this means that after 25 years the economy would be 31% smaller than it would otherwise have been (Avert, 2010). Subsistence farming occupies a major part of the agricultural sector in Ghana; evidence from other countries suggests that the decline in labour supply due to morbidity and mortality from HIV/AIDS will have a negative impact on production and thus, on food supply for households, increasing the incidence of malnutrition. There will be loss of labour

supply at crucial planting and harvesting times. In addition, there could also be switching from labour-intensive export crops to food crops. Production may also suffer because the timing of general agricultural tasks is disrupted as workers fall ill and as others need to take time off to care for them (GACP, 2001).

2.5 Institutions Involved in HIV/AIDS Prevention in Ghana

2.5.1 Introduction

The section profiles Ghana AIDS Commission that has the mandate to provide leadership for the national response to the HIV and AIDS pandemic (GAC, 2011), and Ghana Social Marketing Foundation which is the leading and most experienced organisation in behaviour change communication on HIV/AIDS in Ghana (GSMF, 2003) . The Ministry of Health has the responsibility of direct provision of public health services delivery in the country. The responsibilities include preventive, curative and rehabilitative care to the Ghanaian public. With the enactment of ACT 525, this function has been ceded to the Ghana Health Service and the Teaching Hospitals. The Ministry is, therefore, left with the responsibility for policy formulation, monitoring and evaluation, resource mobilisation and regulation of the health services delivery. This section will, therefore, profile Ghana Health Service instead of the Ministry of Health based on the reasons given above.

2.5.2 Ghana Health Service

The Ghana Health Service (GHS) is a Public Service body established under Act 525 of 1996 as required by the 1992 constitution. It is an autonomous Executive Agency responsible for implementation of national policies under the control of the Minister for Health through its governing Council - the Ghana Health Service Council. The GHS continue to receive public funds and thus, remains within the public sector. However, its employees are not part of the

civil service, and GHS managers are not required to follow all civil service rules and procedures. The independence of the GHS is designed primarily to ensure that staffs have a greater degree of managerial flexibility to carry out their responsibilities, than would be possible if they remained wholly within the civil service. Ghana Health Service does not include Teaching Hospitals, Private and Mission Hospitals.

The establishment of the Ghana Health Service is an essential part of the key strategies identified in the Health Sector Reform process, as outlined in the Medium Term Health Strategy (MTHS), which are necessary steps to establishing a more equitable, efficient, accessible and responsive health care system. The reforms build on the re-organisation of the MOH that began in 1993, provide a sound organisational framework for the growing degree of managerial responsibility that has already been delegated to districts and hospitals. Themes including careful stewardship of scarce resources, clear lines of responsibility and control, decentralisation, and accountability for performance rather than inputs that were central to the re-organisation in 1993, remain important today for the Ghana Health Service. The GHS is mandated to perform the following functions amongst others:

- Develop appropriate strategies and set technical guidelines to achieve national policy

Goals/objectives

- Undertake management and administration of the overall health resources within the service
- Promote healthy mode of living and good health habits by people
- Establish effective mechanism for disease surveillance, prevention and control
- Determine charges for health services with the approval of the Minister of Health

- Provide in-service training and continuing education
- Perform any other functions relevant to the promotion, protection and restoration of Health (Ghana Health.org, 2011).

The National AIDS/STI Control Programme (NACP) that was setup in 1985 coordinates and implements the HIV and AIDS-related aspect of the Ghana Health Sector strategic framework. It is a programme under the Disease Control and Prevention Department of the Public Health Directorate of the Ghana Health Service (GHS). The NACP has since 1985, been the lead agency in the health sector's response to HIV/AIDS (NACP, 2009). To ensure a systematic approach to the national response, NACP first developed a short-term plan for the prevention and control of HIV/AIDS in 1987, and developed two Medium-Term Plans from 1989 to 1993, and from 1996 to 2000. The NACP developed the HIV/AIDS component of the Ministry of Health's two five-year Health Sector Strategic Frameworks from 2002-2006 and 2007-2011, which have been guiding the programme in its implementation of the multi-sectoral national AIDS response (NACP, 2009).

The essential component of the health sector strategic framework relating to HIV/AIDS obliges the programme to undertake the following activities:

- The interventions delivery package to reduce HIV transmission.
- The care and support delivery services for persons living with AIDS.
- The delivery of information on HIV/AIDS for action.
- The provision of essential technical support to all Ministries, Department and Agencies (MDAs) in the implementation of their HIV/AIDS programmes (NACP, 2009).

2.5.3 Ghana AIDS Commission

The Ghana AIDS Commission is a supra-ministerial and multi-sectoral body with a mandate to provide support, guidance and leadership for the national response to the HIV and AIDS pandemic. As portrayed in its institutional motto, “Working actively and in partnership to combat HIV and AIDS”, the Commission collaborates and works closely with a wide-range of organisations including development partners in carrying out its mandate of management and co-ordination of HIV and AIDS activities in the country. It provides funding support to Ministries, Departments, Agencies (MDAs), non-governmental organisations (NGOs), community-based organisations (CBOs), private-sector enterprises, faith-based organisations (FBOs) and other civil society organisations to undertake HIV and AIDS activities in the country. The technical and administrative functions of the Commission are carried out by a Secretariat headed by a Director-General with Directors responsible for Divisions of Technical Services; Policy and Planning; Research, Monitoring and Evaluation; Finance; and Administration. As the executive arm of the Commission, the Secretariat is the focal point in HIV and AIDS policy and programme implementation, monitoring and evaluation at the national, regional and district levels.

The composition of the Commission as provided below indicates the importance the Ghanaian society attaches to the HIV/AIDS pandemic. The Commission is composed of The President as Chairman, The Vice-President as Vice-Chairman and with the following as members: Ministers or Deputy Ministers of all the Ministries, Representatives of Organised Labour (TUC), National Union of Ghana Students (NUGS), Ghana Employers' Association, National Population Council, Ghana Business Coalition Against HIV and AIDS, Ghana HIV and AIDS Network (GHANET), Ghana Registered Nurses' Association, Ghana Registered Midwives' Association, Ghana Federation of Traditional Medicine Practitioners Association,

Christian Health Association of Ghana, Ghana Medical Association, People Living with HIV and AIDS (PLHIV), National House of Chiefs. Ghana AIDS Foundation, Ahmadiyya Muslim Mission, Federation of Muslim Councils, Christian Council of Ghana, National Catholic Secretariat, two (2) Members of Parliament, four (4) individuals with special expertise relating to HIV/AIDS, Ghana Pentecostal Council, Council of Independent Churches, Statistical Service, National AIDS Control Programme, Noguchi Memorial Institute for Medical Research, International Federation of Women Lawyers (FIDA), Ghana and the Director-General of Ghana AIDS Commission (GAC, 2011).

2.5.4 Ghana Social Marketing Foundation (GSMF)

GSMF International a Ghanaian private non-profit governmental organisation with its headquarters in Ghana grew out of a social marketing programme supported by United States Agency for International Development (USAID), under a bi-lateral agreement with the Government of Ghana. The programme began in 1985 and was managed by the Washington DC based Futures Group International. GSMF is registered with USAID as a Private Voluntary Organisation and possess a 501(C) (3) status. GSMF receives funding from USAID, British Department for International Development (DFID), Population Action International (PAI) and Danish Development Agency (DANIDA). Since its inception, GSMF has become a leader in the marketing of contraceptives and other health products. They utilise social marketing and other behaviour change techniques to motivate and empower individuals and families to achieve an improved quality of life.

The programmes of the organisation include HIV/AIDS prevention campaigns, Child Survival (Malaria prevention and Oral Rehydration Therapy), Fertility Management and

Adolescent Reproductive Health. They also provide technical assistance in the following areas: social marketing, research and financial management among others. The concept of value for money is one of the key drivers of all the activities in GSMF. In the execution and management of programmes, they ensure that they maximise the use of resources within the limitations of Ghana's socio-economic environment. GSMF is absolutely committed to obtaining results in the most efficient, economic and effective manner. GSMF collaborates with several international and local organisations such as UNICEF, UNAIDS, WHO, UNFPA, PPAG, Muslim Family Counselling Services (MFCS) and Johns Hopkins University (GSMF, 2003).

2.6 The Interventions to Reduce HIV Transmission in Ghana

This section provides details of the interventions designed to reduce HIV new infections in Ghana. Ghana Social Marketing Foundation (GSMF) in collaboration with Johns Hopkins University, Centre for Communication Programmes, The Ministry of Health and the Ministry of Communication launched the nationwide 'Stop AIDS, Love Life' campaign in February 2000 (GSMF, 2003). This high-level governmental representation positioned HIV/AIDS high on the national Agenda. The 'Stop AIDS, Love Life' campaign was born out of the need for a sustained, visible multi-sectoral onslaught on HIV/AIDS in Ghana. The campaign sought to position the HIV/AIDS pandemic as a developmental issue rather than a health issue. For this reason, the Ministry of Communications assumed the lead role. The primary objectives of the campaign were to:

- Increase the risk perception among Ghanaians with emphasis on young people between 15-24 years.
- Increase social support for preventive behaviours
- Increase Condom Sales and

- Increase public support towards people living with HIV/AIDS.

The 'Stop AIDS, Love Life' campaign used several behavioural change communication methods to reach the broadest possible audience. Most significantly, the campaign combines mass media with interpersonal and interactive audience specific approaches. The components of the campaign included mass media campaign, themes spots, testimonials, generic advertisement, branded condom promotion, HIV/AIDS music video, traditional rulers' initiative, rural HIV/AIDS campaign and barbers' hairdressers', drivers' and hawkers' empowerment programme (GSMF 2003).

Currently, HIV prevention interventions being implemented in Ghana include Behaviour Change Communication and Awareness Campaigns, HIV Testing and Counselling (HCT), Prevention of Mother to Child Transmission of HIV (PMTCT), Condom Promotion and Distribution, Blood Safety, Post Exposure Prophylaxis (PEP), treatment of Sexually Transmitted Infections (STIs) and ensuring Universal Precautions within health and other settings (GAC, 2012). It is hoped that with the right intervention strategies and implementation, the country will consistently reduce the HIV prevalence rate.

2.7 Summary

The Ghana health sector started addressing issues of equity in health care by expanding the availability of hospitals and health centres to cover much more of the countryside. However, these facilities are still not equitably distributed. Financing healthcare remains a challenge to the Ghana health sector, since independence. To resolve this challenge, the government in 1985 introduced a drug costs recovery programme (called Cash-and-Carry) into the Ghana health system. This system reduced the access of poorer sections of the population to health

services in Ghana and in 2003, the “cash-and-carry” system was abolished after the introduction of NHIS.

In the early 1990s, Ghana began taking a series of actions towards re-structuring its health sector. Major areas that needed improvement included developing a basic minimum package of services; refocusing the emphasis on PHC including reproductive health, decentralising greater management and financial responsibility to districts, de-linking of health service delivery from the civil service and reviewing the MOH organisational structure to reflect a shift from vertical systems to a more functional horizontal system. In October 1996, the GHS and Teaching Hospitals (1996) Act”-Act 525 that provides legal backing to the underlying institutional changes in the health sector reforms was enacted. From 1997-2001, the first set of reforms tagged “The Medium Term Health Strategy (MTHS) was introduced with the aim of increasing access to health, improving the quality of healthcare, improving efficiency of delivery of care, fostering partnerships and improvements in healthcare financing. In 2002, the Second Health Sector Programme of Work (5Y POW 2002-2006) was introduced to consolidate the gains made during the first Five Year Programme of Work (1997 – 2001) and apply the lessons learned to finding new solutions. The 5Y POW 2002-2006 links health more closely to poverty reduction through the Ghana Poverty Reduction Strategy (GPRS).

The 2007-2011 health policy focuses on the promotion of healthy lifestyles through good nutrition, regular physical exercise, recreation, rest and personal hygiene. The information available on the Ghanaian healthcare sector reveals that the country lacks both human capital and the needed infrastructure to contain the ever-increasing demand on the healthcare sector. The absence of adequate preventive measures to curb the spread of HIV/AIDS, could have a devastating effect on the economy, education, agriculture, health sector, enterprise, and workplaces etc. It is, therefore important as a country, to implement effective strategies that

will help prevent new HIV infections in Ghana. The next chapter reviews literature on social marketing and behavioural change theories.

Chapter 3

Literature Review of Social Marketing and Behavioural Change Theories

3.0 Introduction

The previous chapter provides contextual background information of the study. It reviewed the Socio-economic growth, the Ghana Government's healthcare policies, Ghana's HIV/AIDS profile, impact of HIV/ AIDS on the Ghanaian economy, intervention strategies designed to reduce HIV transmission, and institutions involved with HIV/AIDS prevention in Ghana. This chapter reviews the literature in the subject area of the thesis including the origin, definitions, principles and discussion of social marketing; targeting upstream and downstream with social marketing interventions and behavioural change theories and their applications to social marketing. The chapter specifically discusses the following models used in social marketing interventions: the health belief model, theory of reasoned action/theory of planned behaviour, the stages of change model, social norm theory, social cognitive theory, protection motivation theory, and extended parallel process model (EPPM). It also discusses the conceptual framework of the study and the role of integrative behavioural change model in social marketing interventions. The chapter concludes by identifying gap in the available literature and indicates the aim of the research.

3.1 Origin of Social Marketing

Social marketing as a discipline has made enormous strides and has had a profound positive impact on social issues in the area of public health, safety, the environment, and community involvement (Kotler and Lee, 2008). Social marketing has often been used by organisations and agencies to influence perception and subsequent behaviour change among a particular group of people – quite often an “at-risk” or vulnerable population. It has been used as a

useful tool in the promotion of HIV/AIDS education and prevention materials targeted to at-risk populations, most notably sex workers and gay men (Harris, 2010). In view of the above, social marketing professionals and researchers have, over the years, addressed the challenges that social marketers have in creating campaigns that adequately address HIV/AIDS (Andreasen, 2001, 2005; Fine, 1990; Kotler & Andreasen, 1996; Kotler & Roberto, 1989; Kotler, Roberto, & Lee, 2002; Weinreich, 1999).

In 1951, Weibe's (1951), article for "The Public Opinion Quarterly", asked whether marketers could sell brotherhood and rational thinking like soap. This statement, propelled marketers for the first time, to think seriously and find out if methods used very successfully to influence behaviour in the commercial sector might be transferrable to a non-profit arena (Ross, et al, 2006). In 1951, the term "social marketing" was introduced to describe "the use of marketing principles and techniques to advance a social cause, idea or behaviour" (Kotler & Zaltman, 1971). This new concept met instant resistance from critics who argued that replacement of products with ideas in marketing would threaten the fundamental concept of exchange and also feared that it will be used for propaganda purpose and discredit marketing in general (Andreasen, 2006; McFadden, et al 1999). Wiebe's (1951) evaluation of four different social change campaigns concludes that the more similarities they had with commercial marketing, the more successful they were. The 1960s saw the introduction of pioneering social marketing-styled interventions, mainly in developing countries. The international development initiatives sponsored by the World Health Organisation (WHO) and the World Bank brought family planning project to Sri Lanka and oral rehydration initiatives to Africa. During the same period, the first blood pressure and healthy-heart initiative were established in developed countries (Baker, 2002).

Nonetheless, over the last three decades, social marketing thinking and techniques has spread to the developed world and now located at the centre of health improvement in several countries. In the United States of America, social marketing is increasingly being advocated for as a core public health strategy designed to influence voluntary lifestyle behaviours such as smoking, drinking, drug use, and diet (CDC, 2011). The year 2005 saw the establishment of the National Social Marketing Centre in the United Kingdom led by the National Consumer Council and the Department of Health (Kotler and Lee, 2008). The aim is to “help realise the full potential of effective social marketing in contributing to national and local efforts to improve health and reduce health inequalities” (NCC/DH, 2005). Irrespective of its general acceptance to influence health-related behaviour, social marketing is still misunderstood by many. The next section provides definitions and explanation for social marketing.

3.2 Definitions of Social Marketing

Social marketing is defined as, ‘the application of principles and tools of marketing to achieve socially desirable goals, that is, benefits for society as a whole rather than for profit or organisational goals and includes the design, implementation, and control of programmes calculated to influence the acceptability of social ideas and involving consideration of product planning, pricing, communications and marketing research’ (Kotler and Zaltman, 1971). Lazer and Kelly (1973), also define social marketing as the application of marketing knowledge, concepts and techniques to enhance social as well as economic ends. It is also concerned with analysis of the social consequences of marketing policies, decisions and activities. These definitions reinforce grounding in marketing and incorporate the marketing mix or elements of product, price, and promotion, while making clear that the mission of social marketing is to achieve socially desirable goals that benefit society (Niblett, 2005).

These definitions, however, did not address the behaviour change aspect of social marketing. To address the behaviour change aspect of social marketing,

Kotler and Lee (2008) assert that social marketing is a process that applies marketing principles and techniques to create, communicate and deliver value in order to influence target audience behaviour that benefits society (public health, safety, the environment and communities) as well as the target audience. Andreasen (1995) also defines social marketing as the application of commercial marketing technologies to analysis, planning, execution and evaluation of programmes designed to influence the voluntary behaviour of target audiences in order to improve their personal welfare and that of their society. Donovan and Henley (2003) endorse and expand upon Andreasen's definition to include "involuntary" behaviour. Dann (2010) reviewed the development of social marketing conceptualisations and suggested a new social marketing definition as "the adaptation and adoption of commercial marketing activities, institutions and processes as a means to induce behavioural change in a targeted audience on a temporary or permanent basis to achieve a social goal'.

French et al. (2010) define social marketing as the systematic application of marketing alongside other concepts and techniques to achieve specific behavioural goals, for social good. They argue that social marketing has moved on from early definitions that imply that social marketing is simply the application of commercial marketing know-how to social issues. Andreasen (2006) asserts that social marketing is a much more mature and integrative discipline. Therefore, to see social marketing simply as 'commercial marketing in the public sector' is to fail to recognise the way it has grown and integrated social, political and behavioural sciences into its development (French et al, 2010). It needs to be recognised that in parallel with the development of thinking about the nature of social marketing, there has

been a growing debate across the social sciences, focused on wider social policy, reform, social justice issues, and in particular, on the role citizens should have in developing policy, and the most effective and ethical ways to influence individuals and social behaviour for good (French et al. 2010).

The goals of social marketing programmes is not to run advertising or communications campaigns (Niblett, 2005), but the ultimate goal is to effect behaviour change or create action that leads to social change. However, to achieve social marketing programme objectives, the interventions often create new awareness and new attitudes that facilitate change in the form of action. Niblett (2007) indicates that in spite of the numerous definitions and the wealth of academic and professional guidance on what constitutes effective social marketing, the term unfortunately is used as a cliché for many things. The responsibility of social marketers is to take every opportunity to fully explain what social marketing is and how it is practiced in ways that utilise the 3Ps (Place, Price and Product) that go beyond promotion, and how they contribute to behaviour change. Most definitions of social marketing consider how marketing tools and techniques might apply to health, social and political issues (McFadyen et al. 2003).

Since many social and health problems have behavioural causes, social marketing is offered a unique opportunity to promote behaviours that lead to improvements in health and well-being (McDermott et al. 2005). Social marketing provides a strategic planning framework comprising consumer research, segmentation and targeting, objectives setting and manipulation of the marketing mix (McFadyen et al., 2003), though, there are several key departures from commercial sector marketing. A social marketing product is often inherently more complex than a commercial product. For example, It may be intangible (a change in

attitude); may require considerable involvement and effort on the part of the consumer (attending HIV/AIDS Counselling and testing); or may represent a change in behaviour like giving up smoking, which people are resistant to. Furthermore, the benefit of behaviour change may not always be immediate or direct (McDermott et al., 2005).

The evolution of social marketing has been somewhat hindered by a lack of definitional clarity and consensus. It has often been confused with related but quite distinct marketing concepts such as public sector marketing, cause promotions and non-profit marketing (MacFadyen et al. 2003). In the public sector marketing, activities are used to support utilisation of governmental agency products and services (e.g., the post office and community clinics) and engender citizen support and compliance. Cause promotions are primarily focused on efforts to raise awareness and concern for a social issue (e.g., global warming, domestic violence) but typically stop short of changing itself with changing behaviours. In the non-profit sector, marketing is more often used to support utilisation of the organisation's services (e.g., ticket sales), volunteer recruitment, advocacy efforts, and fundraising (Kotler and Lee, 2008). Based on the benchmarks for identifying a genuine social marketing programme as presented in table 3.1, social marketing experts have attempted to pinpoint what differentiates social marketing from other approaches to social change such as legislation and education and lay more emphasis on voluntary behaviour change that makes it unique (Andreasen, 2002). Andreasen (2002) however, states that it would be unreasonable to expect programmes to provide strong evidence of all six benchmarks. McDermott et al., (2005) conclude that the key defining features of social marketing approach which include identifying a clear target group and tailoring the approach to match their requirements, removing the competition to behaviour change and emphasising the benefits - were often missing in most social marketing programmes.

Table 3.1 Benchmark for Identifying a Genuine Social Marketing Programme

| |
|---|
| <ol style="list-style-type: none">1. Behaviour change is the benchmark used to design and evaluate interventions.2. Audience research is undertaken to assess the needs of the target groups, pre-test the programme materials and ideas and monitor the ongoing implementation of the programme.3. Segmentation principles are applied.4. The intervention strategy creates attractive motivational exchanges with target groups.5. The intervention strategy attempts to use all 4Ps of the traditional marketing mix6. Careful attention is paid to the competition faced by the desired behaviour. |
|---|

Source: Andreasen (2002)

The next section reviews the social marketing framework/benchmark criteria in detail.

3.3 Social Marketing Framework

Social marketing framework/ benchmark criteria are essentially those elements one should look out for to determine whether an initiative is consistent with effective social marketing (French and Blair-Stevens, 2010). Morris and Clarkson (2009) contend that social marketing framework provides a useful solution for systematically understanding barriers to individual behaviour change, and designing interventions accordingly. Thus, social marketing framework has a number of unique strengths. It provides a mechanism for mobilising existing learning, and re-energising an already weary agenda, and links problems with solutions within a single analytical framework, which is both comprehensive and parsimonious. In doing so, it broadens the focus of analysis of barriers to change that include factors, hitherto,

largely neglected in practice, but crucial to bringing about change in professional practice: “extra-individual” factors. Paradoxically, but crucially, it is a change to the system that unlocks behaviour change in individuals (Morris and Clarkson, 2009). Grimshaw et al., (2001) posit that the social marketing framework has potential because it is explicit about behaviour change and is solution focused. It provides a simple framework to analyse and address the complex problem of behaviour change systematically using methods proven in commercial marketing. The following are the components of social marketing framework:

3.3.1 Behavioural Goals

Social marketing is about getting customers to change their behaviour in specific measurable ways (Stead, et al., 2007; McDermott, et al. 2005). Changes in knowledge and attitudes are only of interest insofar as they lead to actual behavioural changes. Meeting these behavioural objectives can involve defining manageable behavioural steps towards the main goal (Department of Health, 2008). Kotler and Lee (2008) argue that social marketers typically want to influence a target market to accept a new behaviour, reject a potential undesirable behaviour, modify a current behaviour or abandon an old undesirable one. They further assert that although benchmark may also be established for increasing knowledge and skills through education, efforts may be needed to alter existing beliefs, attitudes, or feelings. The bottom line is whether the target audience “bought” the behaviour. French and Blair-Stevens (2010) state that social marketing is focused specifically on achieving and sustaining behaviour over time. In this way, it is much more than a communications or social marketing approach which (though necessary in some contexts) tends to place greater emphasis on communicating and transmitting messages rather than on achieving and sustaining specific behaviours. Effective social marketing begins with the identification of specific behavioural goals at the start of an

initiative and then assess and measures the extent to which these are achieved through the intervention and marketing mix used respectively.

Mathieson *et al.* (2001) describe age as a measure of personal resources or perceived behavioural control. Honold (2000) argues that user capabilities are usually a result of demographic (user's age, educational background, income) or situational (experience). Morris and Venkatesh (2000) argue that age reduces perceived behavioural control because self-efficacy and cognitive skills decrease as people grow older (Brigman and Cherry, 2002). They also argue that age increases the effect of subjective norms because older workers have a greater need for affiliation. Mathieson *et al.* (2001) argue that education level could be positively associated with perceived behavioural control because it could reflect users' level of internal capabilities, such as technical skills and intelligence. The theory of planned behaviour would then predict that education level should influence usage directly, beyond its effect (Mathieson *et al.* 2001). Like age, education level should also be associated with self identity and subjective norms. Nonetheless, if users' conceptions of condom usage change as they receive further education, then education level should directly affect usage behaviour (Sparks and Shepherd, 1992). Users' education level may also influence subjective norms, for example, by creating social expectations that one will use condom in certain ways. Overall, the influence of education level on usage via perceived behavioural control would be positive (Mathieson *et al.* 2001), whereas the influence via social norms and self-identity, however, may be positive or negative, depending on the context. The discussions above conclude that the social marketing education seek to increase target audience knowledge and influence their attitude in order to change their behaviour. Based on the review of the literature, the following null hypotheses are formulated:

Hypothesis 1: there will be no significant difference between respondents' current level of education and their susceptibility towards HIV/AIDS pandemic.

Hypothesis 2: there will be no significant difference between age groups of respondents and their perceived behavioural control (self efficacy).

Hypothesis 3: there will be no significant difference between age groups of respondents and their perceived norms.

Even though, the extant literature indicates that the ultimate aim of social marketers is to change the behaviour of the target audience, the most challenging aspect of social marketing is that it relies heavily on “rewarding good behaviours” rather than “punishing bad ones” through legal, economic, or coercive form of influence (Kotler and Lee, 2008). In many cases, the social marketers cannot promise a direct benefit or immediate payback in return for adopting the proposed behaviour change. French and Blair-Stevens, (2010), suggest that, when all else fails, behavioural controls should be put in place to influence the behaviour in the given context. The social marketing strategy must therefore, provide an environment which facilitates desired behaviour and removes or reduces competition. The behaviour change process involves several steps and starts with understanding of the existing knowledge, attitudes and behaviour as well as the nature of competition. This can be compared with what is called ‘customer insight’ in commercial marketing (Morris and Clarkson, 2009). Knowing what needs to change to enable new behaviour depends on developing customer insight.

3.3.2 Customer Insight

Customer insight means understanding why people do what they do, why it benefits them, who and what influences them, and what, if anything, inhibits them. The aim is to identify

what customers need to happen for them to change their behaviour in the way that is desired (Morris and Clarkson, 2009). Andreasen (1995) argues that expert social marketers must recognise that the way to get where they want to go is to start with where the customers are. The assumption is made that customers have very good reasons for doing what they do. The challenge for the marketer is to figure out how to adjust the marketing programme to respond to these reasons. Andreasen (2006) indicates that in this 21st century, an audience-centred social marketer thinks that if an intervention is not successful, it is not the target audience's fault. It is quite probable that the social marketer does not understand the audience well enough to create effective strategies. Weinstein et al., (2008) argue that to understand why young adults for instance, put themselves at risk for AIDS, it seems logical for the social marketer to investigate their beliefs about HIV/AIDS. Kotler and Lee (2008) state that to be effective in the field of social marketing and influence behaviour change, marketers must understand what their target audiences perceive to be the barrier and benefit to change. The reason is that there is a tendency for individuals to respond positively to actions that are highly beneficial and have few barriers. The barrier to change may be internal to an individual such as lack of knowledge, non-supportive attitudes, beliefs, skills, abilities, and absence of motivation or external such as technology, infrastructure, economic status, or cultural influences. Benefits, on the other hand, may be related to the expectations and value that the behaviour being promoted has the potential to provide (Smith, 2003). These barriers and benefits will differ by target market and by behaviour (McKenzie-Mohr, 2011).

The benefits and barriers to change may be real or perceived but the most important issue to those who seek to change behaviour is that, they are always from the target market's perspective (Kotler and Lee, 2008). Having customer insight, therefore, can help segmentation and targeting to design an attractive exchange and to identify competition. In

social marketing interventions tailored to different populations to promote male circumcision in Johannesburg, Bridges et al., (2010) conclude that researching actual community perceptions prior to the implementation of social marketing campaign is critical, especially, with interventions such as culturally charged and physically invasive, as HIV/AIDS testing and counselling. Pre-social marketing research becomes particularly important to determine intervention strategies that are most relevant for specific target populations (Bridges et al., 2010). A particular strength of social marketing is that, whilst seeking to change individual behaviour, it does not seek to blame the individual but places importance on considering factors within and outside an individual's control (Andreasen, 2004).

3.3.3 Segmentation and Targeting

The marketers begin with the principle that a marketing programme tailored to the needs and wants of a given individual, will result in a positive response from that individual. Ideally, this would mean one-on-one contact with each customer so as to learn about the customer's unique needs, to present alternatives, and to receive feedback to adjust the individualised campaign to achieve the desired goal (Andreasen, 1995). However, marketers know that this is clearly impracticable in most instances. On the other hand, they recognise that mass approaches are often ineffective because they must inevitably be too broad to speak to anyone in any great specificity. This involves dividing the population into reasonably homogeneous segments and then choosing target groups to approach with an offering that better matches their needs than would one design for the population as a whole (Hastings, 2007). Segmentation consists of categorizing audience members into pertinent subgroups based on shared behaviours, lifestyles, desires, and beliefs (Grier & Bryant, 2005, Bate, 2010). The audience of social marketing intervention programme can be segmented into several specific

ones. For example, in Ghana, implementers of social marketing intervention programmes distinguish audience into subgroups based on age, education, income, occupation, etc. (GAC, 2010).

Social marketing is a consumer oriented approach which applies the principles of audience segmentation and targeting. It enables the client to understand what sort of marketing interventions they are likely to respond to (Jesson, 2009). Segmentation and targeting follows commercial marketing in recognising that there is not one audience, but several “segments” will require different interventions. French (2009) posits that commercial marketing segmentation is often based on the so-called ‘psycho-graphic’ research which groups people by identity and lifestyle, their activities, interests, opinions, and current behaviour. However, segmentation in social marketing is based on the current behaviour and future intentions, rather than age, ethnicity or other demographic variables. This then allows interventions to be tailored and targeted for specific groups (Forthofer and Bryant, 2000). Whilst segmentation in commercial marketing is based on choosing primary target market segments that will provide the greatest volume of profitable sales, social marketing segments selection are based on different criteria, including prevalence of the social problem, and ability to reach the audience (Kotler and Lee, 2008).

3.3.4 Competition

In the social marketing framework, competition can be defined as “any environmental or perceptual force that impedes an organisation’s ability to achieve its goals” (Hastings, 2003), and refers to all the factors that compete for people’s attention, willingness, or ability to change. Competition includes inertia (McDermott et al, 2005; MacFadyen, et al. 1999), enjoyment of the current behaviour (MacAskill, et al. 2002), or the absence of options

(Hastings, 2003). As with commercial marketing, it can be helpful to think about potential competition at a number of levels. These levels are for example, the brand (Volkswagen or BMW); the industry (cars); the form (transportation); and at a generic level (consumer spending on transportation versus the home)” (Hastings, 2003). This points to a complexity of choices that are not being addressed in comparisons of relative effectiveness of types of educational intervention in the literature (Solomon et al. 1998; Grimshaw et al. 2001; Davis and TaylorVaisey, 1997; Coomarasamy and Khan, 2004).

Although both social and commercial marketers recognise the need to identify and position their offering relative to competition, their competitors are very different in nature. Whilst competition for commercial marketers is often identified as other organisations offering similar goods and services, the competition for social marketers is most often the current or preferred behaviour of the target market and the perceived benefits associated with that behaviour. This competition will also include any organisation selling or promoting competing behaviour (Kotler and Lee, 2008). Pealtie and Pealtie (2003) emphasise that in social marketing, the competition is better thought of as a “battle of ideas” and that these competing ideas can come from commercial counter-marketing, social discouragement, apathy and involuntary disinclination. McKenzie-Mohr and Smith (1999) therefore, propose a framework to deal with barriers, competition and benefits in behaviour change communication. They propose that social marketers should use their interventions to increase the benefits of the target behaviour, decrease the benefits of the competing behaviours and barriers to the target behaviour but increase the barriers of the competing behaviours.

3.3.5 Exchange

The traditional economic exchange theory postulates that, in order for an exchange to take place, target markets must perceive benefits equal to or greater than perceived cost (Bagozzi, 1978). Kotler (1972) asserts that exchange is the core concept of marketing and that free exchange takes place when the target market believes they will get as much or more than they give. The centrality of exchange to marketing, including social marketing, is reinforced by Bagozzi (1975). However, in recent years there has been a shift of emphasis away from the individual transaction to focus on the importance of establishing long-term relationships (Wood, 2008). Hastings (2003b) points out that this paradigm shift (Gronroos 1994) has largely been ignored by social marketers, which is a “surprising oversight.” Even if the concept of exchange is accepted as useful and relevant in commercial marketing, the added complexities generally found in social marketing situations may make it too difficult to use or apply (Wood, 2008). Exchanging goods and services with paying customers for profit is a conceptually and practically simpler process than the exchange process found in social marketing contexts (Bagozzi 1975). This more generalized or complex exchange process involves more parties than in the simpler buyer-seller relationship found in commercial situations, all of which should be taken into account. Glenane-Antoniadis et al. (2003) propose using the concept of social capital to deal with the complexities of exchange in social marketing. However, the traditional view of the exchange process and its application to social marketing emphasizes the voluntary participation of two parties who exchange something of value with each other in return for satisfaction (Kotler and Zaltman 1971; Andreason 1994). The importance of exchange in social marketing is to recognise that changing behaviours comes at a cost to the practitioner, and that unacceptable trade-offs can prevent new practice (Cranney, et al. 2001). The cost can include financial, emotional, social, loss of preferred behaviours plus the time cost of learning new practices. Thus, a “central element of any

intervention is creating attractive and motivational exchanges with target audiences” (Andreasen, 2002).

3.3.6 Social Marketing and Intervention Mix

The final piece of the social marketing framework relates to “mix”: “intervention mix” and “marketing mix”. One framework that can be used to define a social marketing campaign is the use of marketing principles such as the 4Ps, product, price, placement, and promotion (Thompson, 2013). When used in health campaigns, the first P, representing product, includes the behaviour and its associated benefits. The second P, price, includes the costs the target adopters assume and the barriers they must overcome. The third P, place, represents the location where the behaviour takes place and is supported or facilitated. The fourth P, promotion, is the manner by which the change is communicated to the target audience (, Mah, et al. 2006; Glassman & Braun, 2010). The following sub-sections discuss the 4Ps and their applications to social marketing.

3.3.6.1 Product

A product is anything that can be offered to a market to satisfy a want or need. It is not, as many physically think: just a tangible offering like soap, tires, or hamburger. It can be one of several types: physical good, a service, an experience, an event, a person, a place, a property, an organisation, information, or an idea (Kotler and Lee, 2008). Glassman and Braun (2010), in trying to clarify the confusion surrounding social marketing strategies, indicate that social marketing product is what is being sold, including the behaviour and the associated benefits of that behaviour. Glanz et al., (2008) also argue that effective social marketing efforts offer products, services, or ideas members of the target audience perceive to be in their own best interest. Smith (2009) argues that “social market” is an idea, but an idea cannot be our

product. An idea, like “health is good,” “exercise works,” or even “environmentalism,” is the affirmation of a belief, not social marketing product. To be successful, a social marketer must translate that affirmation of a belief into a set of behaviours (immunise your child, exercise moderately three times a week, or re-cycle aluminium cans); and then develop interventions to promote those behaviours (Smith, 2009). Rothschild (2009) supports Smith’s assertion and posits that equating product to behaviour will lead social marketers away from many reasonable solutions to specific problem, and can also minimise the potential unique contributions offered by social marketing. Rothschild further argues that social marketers offer a product because they wish to receive ‘behaviour’ in return. Though, the behaviour they seek cannot be the product they offer. We should not say that behaving is a type of product, but rather, that behaving is required to receive product’s benefits (Rothschild, 2009).

3.3.6.2 Price

Price is most easily understood as cost–money costs, opportunity costs, incidental costs and costs to wellbeing (Kotler and Zaltman, 1971), as well as inconvenience, the time it takes to learn new skill. When asked to consider the pricing aspects of their social marketing interventions, health professionals tend to think about monetary costs: either the costs of providing services, support, and campaign materials or the issue of whether the target market has to pay anything to receive these services. Buying a behavioural change “product” often involves costs but these are likely to include perceived time, effort, change of lifestyle, and negative impact on social relations resulting from changed behaviour (Wood, 2008). Health professionals attempting to deliver and create value (Kotler, 1972) are faced with the problem of understanding and measuring cost to the target individual. In social marketing, the target audience may not directly or immediately benefit from the perceived costs of changing

behaviour and this makes it even more difficult to apply the concept of value to social marketing situations. On the other hand, they may benefit financially, for example by saving money by not buying (or reducing their consumption of) cigarettes, tobacco, or drugs (Wood, 2008). The aim of the social marketer is to change the perceived cost/benefit ratio. In some circumstances it may not be possible to reduce these costs but competitions and give-aways are both methods of increasing the personal benefits to the target adopter (Peattie, 1999). Experience shows that, if audience perceived cost exceed their perceived benefits, they are unlikely to adopt the recommended HIV-protective behaviours.

3.3.6.3 Place

Place refers to where the “social product is available to audiences” (Mah, et al.,2006), and can include attempts to move products that support health closer to the user. For example, Naikoba and Hayward (2001) studies show that practitioners are more likely to wash their hands on wards with more sinks than those with fewer sinks. Coughlan et al. (2001) define a marketing channel as a set of inter-dependent organisations involved in the process of making product or a service available for use or consumption and the route to and relationship with customers. Strand et al., (2004) argue that the marketing mix variable “place” is often overlooked or assumed to be inapplicable to social marketing, yet many programmes fail precisely because their planners do not pay adequate attention to developing and improving the channels of distribution. Sometimes when social marketers consider behaviour change, they focus too closely on the individual and neglect to consider the physical, social, and cultural environments in which that behaviour occurs. This may happen if they conceptualize product as the behaviour they want to change (Smith, 2009). Lotenberg (2010) concludes that “place” can help an implementer of social marketing intervention programme to systematically look

at the factors that influence whether an individual takes a particular action – including the factors external to the individual that can facilitate or prohibit behaviour. He further argues that place must be present for the behaviour to occur; without it, addressing motivation or ability is pointless. For example, if an intervention targets the tendency/willingness of a group to use condom, even if the implementers manage to motivate members and give them the skills to properly use condoms, they can't use them if facilities where they could buy the condom is unavailable.

Strand et al., (2004) asserts that ultimately customers buy an experience; all businesses can do is make decisions about the components of that experience. It is difficult for companies to differentiate on products but easier for them to differentiate by offering different experiences or relationships through their channels. In their view, social marketers are good at delivering ideas, creating awareness and positive attitudes and developing branding and position. However, there is a huge disconnect in converting that increased awareness and attitude change into behaviour change.

3.3.5.4 Promotion

Communication is defined as all the promotional elements of the marketing mix (advertising, sales promotion, public relations and publicity, etc.) which involve the communications between an organisation and its target audiences on all matters that affect marketing performance (Pickton, and Broderick (2005). Promotion or communication in social marketing is defined as the process by which social marketers recommended ideas travel from one person to another (Blair-Stevens et al., (2010). Andreasen (1995) posits that social marketers (like commercial marketers) see promotion much more broadly than production of brochures, posters, TV spots, Radio adverts, and public service announcement. Promotion

can include what is called personal selling in the commercial sector. Social marketers recognise that a mother may be much more influenced by a quite conversation with another mother like herself who has been trained as a village health promoter than she is by any fancy advertising campaign.

Promotion can also include tactics that reward consumers (sales promotion) for desirable behaviour. A very important component of an Oral Rehydration Solution (ORS) social marketing in the Gambia for instance, was a contest that gave mothers a free plastic cup or a bar of soap for correctly mixing oral rehydration solution (Andreasen, 1995).

The extant literature suggests that many of the issues identified as barriers to change at the individual level are in fact well beyond the control of individuals and require responses at a higher level (Gurses, et al. 2008). Lack of time (Grol, et al. 2007; Lang et al. 2007) and lack of resources generally are a commonly cited explanation for lack of change (Sheldon, et al. 2004; Jibawi, et al. 2008; Lang, et al. 2007; Taylor and Beswick, 2005) by practitioners and these cannot be resolved at the individual practitioner level. The current debate in existing literature, therefore, suggests that social marketers should not only use the 4Ps as discussed to influence only the downstream. Rather, they should also seek to influence the upstream (Andreasen, 2006). The next section, therefore, discusses the upstream and downstream argument in social marketing literature.

3.4 Upstream and Downstream Application of Social Marketing

Social marketing is concerned not only with individuals and their families, but also with the institutions and social conditions that impede or facilitate individuals' access to optimum health (Griffiths, 1972). Many believe that to date, social marketers have been placing too

much of the burden for improving the status of social issues on individual behaviour change and that social marketers should direct some of their efforts to influence upstream factors (Kotler and Lee, 2008). Andreasen (2006) posits that a significant majority of social marketing interventions designed to bring about social change in the past has focused on what the private sector would call “final consumer” those who are causing the social problem by carrying out undesirable behaviours. Andreasen (2006) however, asserts that in most of these domains, the entire burden of social change cannot and should not be placed on these downstream targets. It is very often the case that structural and policy changes at the broadest level will have to take place if long-term solutions are to be achieved. He explains that for many kinds of social change, community norms and social priorities will need to change to bring the issues higher on the public and political agenda. Wallack (1990) was already arguing that social marketers were too focused on downstream behaviours (of victims) and that what society really needed to fix were the structures and process upstream that caused the problem in the first place.

Marvin Goldberg, in 1995, asked “are we fiddling while Rome burns?” “Were we too worried about influencing smokers or would-be smokers when, perhaps, we should be paying much more attention to influencing the behaviour of the tobacco industry that is creating smokers in the first place?” (Goldberg, 1995). Hastings (2007) asked, should social marketers focus their attention on influencing individuals to give up smoking, drive more safely or eat less fat (Downstream Behaviour Change)? Or should social marketers also be trying to influence the policy makers, politicians, regulators, or educators to restrict access to tobacco, make road slower and cars safer, or improve the nutritional value of food product (Upstream Behaviour Change)? In 2002, Hastings and Donovan (2002) sent out a call to action in a

social marketing quarterly which urges social marketers to collectively embrace a broader perspective that encompasses not just individual behaviour but also, the social and physical determinants of that behaviour. They further argue that this broadening still involves behaviour change but among those who make policy and legislative decisions on behalf of groups, corporations, and government, as well as individual citizens (Hastings and Donovan, 2002). The potential for a broadened role for social marketing is being recognised by other scholars. In a review of public communication campaigns, Coffman (2002) makes a distinction between efforts to affect individual behaviour and public communication campaign designs to promote the public will for change. She concludes that an evaluation of campaigns that use social marketing techniques provide lessons for evaluating public will campaign. In her view many public campaigns simply provide information and do not pay enough attention to turning this awareness into action through what she calls “Public will”. A public will campaign attempts to legitimize or raise the importance of a social problem in the public eye as the motivation for policy action or change (Henry & Rivera, 1998). It focuses less on the individual who is performing the behaviour (i.e. the smoker, polluter, drug user), and more on the public’s responsibility to do something that will create the environment needed to support that behaviour change (Coffman, 2002).

Kotler and Lee (2008) by using HIV/AIDS as an example, argue that downstream social marketers focus on decreasing risky behaviours (e.g. unprotected sex) and increasing timely testing (e.g. during pregnancy). They further argue that if social marketers who are involved in HIV/AIDS interventions move their attention upstream, they would notice groups, organisations, corporations, community leaders, and policy makers that could make this change a little easier or a little more likely, ones that could be a target market for a social marketing effort. McKinlay and Marceau (2000) add their voices to the upstream application

of social marketing argument and state that social marketers focusing their attention merely on downstream causes of poor health rather than upstream risk factors miss important opportunities to improve health.

Grol et al., (2007) believe that the design of social marketing interventions that yield desirable changes in behaviour (whether upstream or downstream) can best be done with an understanding of theories of behaviour change and ability to use them skilfully in research and practice. Theory is useful in health interventions because it provides a bridge from findings in one study to another (Brewer and Rimer, 2008). If studies and interventions are designed without theory it will be more difficult to generalise findings to other populations, settings and times (Brewer and Rimer, 2008). Noar, (2008) after comparing interventions developed using theories to those without formal theoretical frameworks in meta-analytic study to design interventions to increase condom use concludes that interventions informed by theories were somewhat or clearly more effective in changing behaviour than those not based on theory. The next section, therefore, reviews literature on behavioural change theories used in social marketing interventions.

3.5 Behavioural Change Theories in Social Marketing

A theory is a set of inter-related concepts, definitions and propositions that present a systematic view of events or situations by specifying relations among variables, in order to explain and predict the events or situations (Kerlinger, 1986). Chafetz, (1978) defines theory as a set of relatively abstract and general statements which collectively purport to explain some aspect of the empirical world. Babbie (1989) indicates that theory is a systematic explanation for the observed facts and laws that relate to a particular aspect of life. These definitions, put forth in the 1970s and 1980s have stood the test of time. They have been

articulated in more recent works without substantive changes (Isaac and Michael, 1995; Sussman 2001; Glanz, et al., 2008). Glanz, et al., (1996, 2002) posit that theories can be used to guide the search for why people are not following public health interventions or not caring for themselves in healthy ways. They can help pin-point what one needs to know before developing and organising an intervention programme. They can provide insight into how to shape programme strategies to reach people and organisations and make impact on them. They also help to identify what should be monitored, measured and compared in a programme evaluation. Thus, theories and models explain behaviour and suggest ways to achieve behaviour change.

Kotler and Lee (2008) suggest that information on target audience, barrier, benefits, and competition will help deepen understanding but may not lead to behaviour change. It is, therefore, imperative to understand underlying behaviour change theories. A number of systematic reviews have shown that using theory in crafting interventions can lead to more powerful effects than interventions developed without theory (Ammerman et al., 2002). Glanz, et al., (2008) assert that a social marketing professional who understands the relevance of theory may be able to design better interventions tailored to the needs of his/her target audience. Airhihenbuwa and Obregon (2000) indicate that an effective communication strategy is a critical component of the global efforts in HIV/AIDS prevention and education. Such a strategy should be grounded in sound theory such that the resulting framework is flexible enough for application in different regional and cultural contexts. Given the emphasis placed on HIV/AIDS prevention and care, mostly because of the absence of cure for or vaccination against the disease, employing effective communication strategies becomes pivotal in controlling the pandemic. Consequently, evaluating and re-defining approaches to

communicating relevant messages to different populations and the public at large has become a critical aspect of HIV/AIDS prevention and care (Airhihenbuwa and Obregon, 2000).

Due to the importance of theory as pointed out by researchers, this chapter reviews the behavioural change theories used by social marketers to influence the behaviour of their target audience. Even though there are a number of behavioural change theories that could be utilised by social marketers to design effective interventions, this literature reviews the following: health belief Model; protection motivation theory; extended parallel process model; social cognitive theory; social norm theory; stages of change model/transtheoretical model; and theory of reasoned action/theory of planned behaviour, which are much more widely used in health interventions (Noar and Zimmerman, 2005; Cismaru, et al., 2008; Kotler and Lee, 2008; Frazee, et al., 2007).

3.5.1 The Health Belief Model

Since the early 1950s, the Health Belief Model (HBM) has been one of the most widely used conceptual frameworks in health behaviour research, both to explain change and maintenance of health-related behaviours and as a guiding framework for health behaviour interventions (Champion and Skinner, 2008). The HBM contains several primary concepts that predict why people will take action to prevent, to screen for, or to control illness conditions. These includes susceptibility, seriousness, benefits and barrier to behaviour, cues to action, and most recently, self-efficacy (Champion and Skinner, 2008). Initially, Hochbaum (1958) studied perceptions about whether individuals believed they were susceptible to tuberculosis and their beliefs about the personal benefits of early detection. According to Hochbaum (1958), if individuals regard themselves as susceptible to a condition, believe that condition would have potential serious consequences, believe that a course of action available to them

would be beneficial in reducing their susceptibility to or severity of the condition, and believe the anticipated benefits of taking action outweigh the barrier to action, they are likely to take action that they believe will reduce their risk. Hochbaum (1958) defines the constructs of HBM as follows:

1. Perceived Susceptibility refers to beliefs about the likelihood of getting a disease or condition.
2. Perceived Severity is feeling about the seriousness of contracting an illness or of leaving it unattended to and includes evaluation of both medical and clinical consequences (eg. death, disability, and pain) and possible social consequences (such as effects of the conditions on work, family life and social relations). The combined levels of susceptibility and severity provide the energy to act and the perception of benefits (minus barriers) provide a preferred path of action (Rosenstock, 1974).
3. Perceived Benefits: Champion and Skinner, (2008) assert that even if a person perceives personal susceptibility to a serious health condition (perceived Threat), whether this perception leads to behaviour change will be influenced by the person's beliefs regarding perceived benefits of the various available actions for reducing the threat.
4. Perceived Barrier is the potential negative aspects of particular health action-perceived barriers which may impede understanding of recommended behaviours. A kind of non-consciousness, cost-benefit analysis occurs wherein individuals weigh the action's expected benefits with perceived barriers, "it could help, but it may be expensive, have negative side-effects, be unpleasant, inconvenient or time consuming.
5. Cues to Action. Hochbaum (1958) thought that readiness to take action could only be potentiated by other factors, particularly by cues to instigate action, such as bodily events or by environmental events such as media publicity.

6. Self-Efficacy is defined as the conviction that one can successfully execute the behaviour required to produce the outcome (Bandura, 1997). In 1998, Rosenstock, Strecher and Becker suggest that self-efficacy be added to the HBM as a separate construct.

The Health belief model (HBM) has been applied to breast cancer screening and AIDS related behaviours. Indeed, many studies have found relationships between HBM constructs and mammography adherence. Adherence has been significantly associated with greater perceived susceptibility, lower barriers, higher benefits and cues in the form of recommendations from health care providers and social marketing interventions (Champion, 1984; Champion and Menon, 1997; Champion, et al., 2000; Phillips et al., 1998). The HBM hypothesis indicates that health-protective behaviour decisions are a function of perceived risk of contracting the disease, perceived severity of the disease and perceptions of benefits and barriers to specific AIDS-protective behaviours. The HBM suggests that, for individuals who exhibit high-risk behaviours, perceived susceptibility is necessary before commitment to changing these risky behaviours can occur. For non believers of inherent risk, the benefits or barrier to an action are irrelevant (Champion and Skinner, 2008). Self-efficacy studies in relation to HIV-protective behaviours posit that an individual perceived ability to carry out a behaviour is necessary to prevent infection with HIV (Janz and Becker, 1984).

Recent studies addressing relationships between HBM constructs and risky sexual behaviours have focused on adolescent and young adults in United States and more general populations in some African countries, where AIDS is a significant problem (Champion and Skinner, 2008). The existing literature reveals the relationship between perceived susceptibility to negative outcomes of risky sexual behaviour such as becoming HIV positive varies across

studies. Some researchers have found significant relationships between condom use and perceived susceptibility (Basen-Enquist, 1992; Mahoney, et al., 1995; Steers, et al., 1996) whereas others have not found the relationship (Hounton, et al., 2005; Volk and Koopman, 2001). Ronis (1992) believes that measurement issues may explain some of the discrepancy and therefore, suggests that susceptibility questions should be clearly conditional on action or in action. Ronis further asserts that not specifying conditions of action versus inaction could lead to a personalised interpretation. Therefore, comparisons of the predictive ability of perceived susceptibility across studies may be inconsistent (Ronis, 1992).

Rosenstock, et al., (1994) contend that perceptions of AIDS severity address the perceived costs of being HIV-positive. Perceived seriousness, in this case, refers to personal evaluations of the probable financial and social consequences of contracting HIV/AIDS. Associations of perceived benefits and barriers to AIDS are identified, but results with behaviours are inconsistent. Reported condom use among Central Harlem Youth was motivated by the perceived value of condoms to avoid pregnancy, as well as avoidance of HIV/AIDS, but the strongest motivation was avoiding pregnancy (Laraque, et al 1997). In a study of gay men's safer sex behaviour, Wulfert, et al. (1996) found that most men were convinced about the benefits of using condom but these perceived benefits were not associated with behaviour. Several researchers have found a significant relationship between barriers and condom use (Hounton, et al 2005; Volk and Koopman, 2001). As perceived barrier increases, condom use to protect oneself against HIV/AIDS decreased. Barriers such as reduction of sensation and pleasure were associated with condom use, as well as worry about negative reactions from sexual partners (Wulfert, et al., 1996). Self- efficacy has been one of the stronger predictors of condom use or safe sex (Lin, et al., 2005 and Steers, et al., 1996). Self- efficacy was a significant predictor of sexual behaviours that include increased condom use, decreased

number of sex partners and decreased number of sexual encounters. Self-efficacy has also been found to have cultural differences in that it was significantly lower in Asian Americans than whites, African Americans, or Hispanic (Hounton, et al. 2005; Lin, et al. 2005). Further, self-efficacy can vary between men and women because in the case of condom use, the behaviour is not under the woman's direct control (Wight, et al, 1998). Based on the HBM constructs and discussions, the following null hypotheses are formulated:

Hypothesis 4: there will be no relationship between respondents' intention to perform HIV-protective behaviour and their perceived susceptibility towards the disease.

Hypothesis 5: there will be no relationship between respondent's HIV-protective behaviour performance and their perceived severity of the disease.

Hypothesis 6: there will be no significant difference between males and females and their decision to use condom to protect themselves against HIV/AIDS.

Although, the HBM identifies constructs that lead to outcome behaviours, critics believe that relationship between and among these constructs are not defined. This ambiguity has led to variation in HBM applications (Champion and Skinner, 2008). According to them analytical approaches to identifying these relationships are needed to further the utility of the HBM in predicting behaviour. Witte (1992) is of the view that Health Belief Model is limited because it is a cognitive based model and does not consider the emotional component of behaviour. He considers fear as an essential part of a health-related behaviour and defines fear as a negative emotion accompanied by a high state of arousal. Champion et al., (2005)

experimented with adding fear to a model that predicts mammography behaviour and found relationships between HBM constructs and fear that might be useful predictors. The most persuasive communications are those that arouse fear while enhancing perceptions central to the HBM, the severity of an event, the benefits of responses to that threat and self-efficacy for accessing those benefits (Rogers and Prentice-Dunn, 1997). They also posit that the inclusion of an emotional construct might help explain relationships among HBM constructs. The Protection Motivation Theory (PMT) addresses this limitation by introducing fear appeal in health interventions. The next section therefore, discusses the constructs of PMT.

3.5.2 Protection Motivation Theory

The Protection Motivation Theory (Rogers 1975, 1983) posits that exposure to fear-arousing information provides the impetus for individuals to appraise their environment for relevant or salient information to assess their level of threat (Tanner et al., 1991). This relevant or salient information could include environmental sources, such as conversations and observations, and intra-personal sources of information, such as personality and prior experience (Rogers 1983). Threat appraisal involves evaluating the components of the fear appeal that are relevant to the individual, including determining how severe the threat is perceived to be and how vulnerable the individual perceives him or herself to be (Cismaru et al., 2008). Vulnerability refers to one's subjective perception of the risk of contracting a condition, or the risk resulting from leaving a condition untreated. Severity refers to perceptions about the seriousness of the condition. This dimension includes evaluation of both medical consequences (e.g., death, disability, and pain) and possible social consequences (e.g., effects of the medical condition on work, family life, and social relations) (Cismaru et al., 2008). The experience of fear encourages the individual to consider the effectiveness of behavioural changes and self-efficacy relative to costs of behaviour change.

Response efficacy refers to the person's belief that the recommended behaviours will be effective in reducing or eliminating the danger. Self-efficacy refers to the person's belief that he or she has the ability to perform the recommended behaviours. Finally, costs represent the sum of all barriers to engaging in the recommended behaviour including monetary costs and non-monetary costs such as time, effort, inconvenience, discomfort, and social costs (Ho, 1998). The motivation to act arises from the individual's expectation that the action can reduce the likelihood or severity of harm (Weinstein, 1993). PMT theory specifies that coping modes could include action (or inhibition of action) manifested through a single act, repeated acts, multiple acts, or repeated multiple acts (Rogers 1983). The degree to which protective behaviour occurs is measured by observing whether a person is performing the recommended behaviour (Boer and Seydel 1996). A review of the research using PMT (Rogers and Prentice-Dunn 1997) shows that numerous studies have tested either the threat appraisal and/or the coping appraisal in a wide variety of health contexts such as change in lifestyle (e.g. smoking, regular exercise, stress reduction), change in sexual behaviour (e.g. AIDS-preventive actions), or change in health care practices (e.g. inoculation against a virus, self-examination, mammography) and many others.

Correlation studies, as well as studies using experimental manipulations of PMT variables, often produce main effects on intentions (Eagly and Chaiken, 1993). Indeed, a meta-analytic review of 65 studies representing over 20 health areas that included approximately 30,000 participants (Floyd, et al., 2000) demonstrated that, in general, increases in severity, vulnerability, response efficacy and self-efficacy perceptions facilitated adaptive intentions and behaviours. Based on this the following hypothesis is formulated:

Hypothesis 7: there will be no relationship between respondents' performance of HIV-protective behaviour and their response efficacy towards interventions on the pandemic.

In addition, a meta-analytic review of health-related PMT empirical studies found evidence for the particular importance of the threat-appraisal and coping-appraisal components of the PMT model in predicting health-related intentions (Milne, et al., 2000). In the meta-analysis of 27 studies, which included 7,694 participants and several health contexts, all PMT variables were significantly associated with behavioural intention and concurrent behaviour. The associations between coping variables (efficacy and costs) and persuasion measures (behavioural intention, concurrent behaviour, and subsequent behaviour) were stronger than the associations between threat variables (vulnerability and severity) and persuasion measures (Cismaru et al., 2008).

Social marketing campaigns in the area of promoting health often use mild fear appeals to advocate behavioural changes such as adopting a healthier lifestyle or abstaining from drinking and driving (Hastings, et al., 2004). The Protection Motivation Theory (Rogers 1975, 1983) has been widely used to help create such social marketing campaigns (Eppright et al., 2002; Lawrence, 1995). Several reviews of social marketing campaigns in the area of preventing and controlling obesity (Cismaru et al., 2008), limiting smoking (Cismaru and Lavack, 2007b), as well as preventing drinking and driving (Cismaru et al., 2008) show PMT as being a theoretical framework that can be successfully used to create persuasive advertising campaigns in the area of social marketing.

Several limitations of the PMT model have been identified in the literature. Assumptions of temporal order have not been tested (Tanner et al., 1991) and there is a lack of knowledge

about how people's long-term coping behaviours feed back into and affect the cognitive mediating processes (Rogers and Prentice-Dunn 1997). Another limitation of PMT is its assumption that people have not already adopted the coping response (Tanner et al., 1991). In many cases individuals have prior awareness of the threat so their behaviours may already include adaptive and maladaptive responses that influence their response to a threatening communication (Cismaru et al., 2008). Indeed, there is some initial evidence showing that PMT variables operate differently in medical compliance situations (e.g., hypertensive patients) than in situations in which the health threat may not yet be manifested (e.g., skin cancer prevention) (Flynn, et al., 1995; Rogers and Prentice-Dunn, 1997; Cismaru et al., 2008). Different variables are noted to have a stronger effect on some types of health problems (Floyd et al., 2000). For example, with cancer prevention, threat variables showed stronger relationships with protective behaviours than did the coping variables. In contrast, for smoking cessation and smoking prevention, coping variables showed much stronger effects than threat variables.

In short, although PMT has had strong empirical support with respect to the predictive value of several of the PMT variables on persuasion in a wide variety of contexts, and the relationship between PMT variables has been mathematically modelled (Cismaru and Lavack, 2007a), the full PMT model has not been rigorously tested. Proposed cut-off points for variables involved in behaviour change have not been determined. An additional consideration is when some people do not adopt health recommendations; PMT does not predict who these people are likely to be, why they do not feel vulnerable, why they do not think the issue is serious or why they do not feel able to change their behaviour (Cismaru et al., 2008). PMT also does not propose specific strategies for increasing persuasion when it fails (Cismaru et al., 2008). To overcome some limitations of PMT, the Extended Parallel

Process Model (EPPM) was introduced (Witte 1992). The EPPM specifies the same variables as PMT but in addition, EPPM specifies why fear appeals may fail and identifies different types of responses that can assist health communicators in understanding why particular behaviours are not adopted. The next section reviews the constructs of EPPM.

3.5.3 Extended Parallel Process Model (EPPM)

The Extended Parallel Process Model (Thesenvitz, 2000; Witte 1992; Witte et al., 1995; Cismaru et al., 2008) specifies the same important variables as Protection Motivation Theory (PMT) but further proposes that the perceived threat determines the strength of the response, and that perceived efficacy determines the nature of the response. Similar to PMT, the EPPM posits that the communication makes people evaluate their vulnerability and the severity of the particular event, and when a minimum level of threat is not perceived, either no response occurs or a fear response takes place (e.g., denial, minimisation, “good excuses,” rationalisation, projection and displacement, or internalisation) (Cismaru et al., 2008). Unlike PMT, the EPPM specifies why fear appeals may fail and identifies different types of responses that can assist health communicators in understanding why particular behaviours are not adopted. Furthermore, according to EPPM, when the minimum level of threat is passed, the evaluation of potential coping responses takes place. It is noteworthy that the EPPM model specifies a particular order for information processing, implying that each variable has a different level of importance (Cismaru et al., 2008). What is not apparent, however, is why this order of information processing was proposed.

In contrast to PMT, which considers costs and self-efficacy as having the highest impact on persuasion (Cismaru and Lavack, 2007a; Milne et al., 2000), EPPM considers threat information to be processed first, followed by perceptions of response efficacy, and

depending on its level, the self-efficacy information may be processed at the same time. The order in which information is processed especially when specific cut-offs are imposed, is an issue that needs to be addressed in future research (Cismaru and Lavack, 2007a). The EPPM advances theory by proposing a sequential model of information processing, which contradicts the PMT assumptions that all PMT variables are processed simultaneously and that their effect on persuasion is independent. However, the EPPM model assumes an additive relationship between perceived severity and perceived vulnerability and between response efficacy and self-efficacy, which is inconsistent with the latest research on PMT (Milne et al., 2000). In addition, it is not clear from the EPPM model what to communicate to consumers who adopt a fear control response to persuade them to adopt the recommended health behaviour.

The EPPM has been tested using a variety of research methods such as experiments, focus groups and surveys and has covered a multitude of topics such as skin cancer, breast cancer, AIDS prevention, teen pregnancy, meningitis, and even tractor safety (Gore and Bracken, 2005), as well as hearing loss, wearing bicycle helmets, tetanus, drunk driving and diet (Witte1998). Reviews of EPPM studies have found that successful fear appeals should contain a high-threat message and even higher amounts of efficacy (self-efficacy and response efficacy) to promote danger-control responses and the greatest behaviour change (Gore and Bracken, 2005; Witte and Allen, 2000).

The PPM and EPPM posit that environmental factors may affect the level of threat of individuals who are exposed to fear arousing communication. Social Cognitive Theory (SCT) however indicates that, the interaction of personal, behavioural, and environmental factors

may influence the individual to adopt recommended health behaviour (Blair-Steven et al., 2010). The next section reviews the basic concepts of social cognitive theory.

3.5.4 Social Cognitive Theory

Social Cognitive Theory (SCT) was first known as social learning theory, as it was based on the operation of established principles of learning within the human social context (Bandura, 1977a). It was renamed Social Cognitive Theory when concepts from cognitive psychology were integrated to accommodate the growing understanding of human information processing capacities and biases that influence learning from experience, observation and symbolic communication (Bandura, 1986). With further development, SCT has embraced concepts from sociology and political science to advance the understanding of functioning and adaptive capacities of groups and societies (Bandura, 1997). The theory has also integrated and developed concepts from humanistic psychology by analysing the process that underlines self-determination, altruism and moral behaviour (Bandura, 1999). SCT posits that learning, or the development of behaviour, is achieved through the interaction of three different factors: personal, behavioural and environmental influences (Blair-Stevens et al., 2010). Although SCT recognises how environment shapes behaviour, it focuses on people's potential abilities to alter and construct environment to suit purposes they devise for themselves (McAlister et al., 2008; Baranowski et al., 2002).

In addition to a person's individual capacity to interact with their environment, SCT emphasises the human capacity for collective action. It also enables individuals to work together in an organisation and within the social system to achieve environmental changes that benefit the entire group (McAlister et al., 2008). SCT also asserts that planned protection and promotion of public health can be viewed as illustration of this kind of reciprocal

determinism, as societies seek to control the environment and social factors that influence health behaviour and health outcomes (Bandura, 1997). Bandura's work has stimulated an enormous amount of research on learning and behaviour and has been extremely fruitful in developing techniques for promoting behaviour change.

SCT provides a comprehensive and well-supported conceptual framework for understanding the factors that influence human behaviour and the process through which learning occurs, offering insight into health-related issues like HIV/AIDS screening (Fraze, et al., 2007). The greater significance has come from the application of SCT to design of interventions to meet important practical challenges in medicine and public health (Clark and Zimmerman, 1990; Kok et al., 1996; Elder et al., 1999). However, the theory's comprehensiveness and complexity make it difficult to operationalise and as a result many applications of the SCT have focused on one or two constructs, such as self-efficacy or environment, while ignoring the others (Fraze et al., 2007). Other critics of the model argue that although SCT is believed to be very useful in HIV/AIDS communication campaigns in the United States (Freimuth, 1992; Maibach and Flora, 1993), there remains the question about its relevance in cultures where individual decisions are the result of group norms whereby being individualistic is going against the grain (Airhihenbuwa and Obregon, 2000). The social norm theory helps researchers to understand how group norms may influence individual intentions. The next section therefore, discusses the social norm theory.

3.5.5 Social Norm Theory

Social norms constitutes a theory which can be utilised within social marketing, similar to the behaviour change theories such as the Transtheoretical Model, Health Belief Model, Social Cognitive Theory and many others (Tavis et al., 2010). Social norm campaigns specifically

aim to correct misperceptions regarding the prevalence of a given behaviour (Tavis et al., 2010). Perkins (2002) describes social norm interventions as the basic idea to communicate the truth about peer norms in terms of what the majority of students actually think and do concerning alcohol consumption. Thus, the message to students is a positive one – that the norm is one of safety, responsibility and moderation because that is what the majority of students think and do in most student populations. The social norms approach was first suggested by Perkins and Berkowitz, (1986) in an analysis of student alcohol use patterns. In this study they determined that college students regularly over-estimated the extent to which their peers were supportive of permissive drinking behaviours and found that this over-estimation predicted how much individuals drank.

Perkins & Berkowitz (1986) assert that prevention efforts focus on providing students with accurate information on peer drinking attitudes and behaviour represented a radical departure from traditional intervention strategies that provided information on abuse and negative consequences and concentrated primarily on the identification, intervention, and treatment of problem users. Other researchers (Hansen & Graham, 1991; Perkins, 2003) found that adolescents and young adults quite often over-estimate the alcohol consumption rates of their peers. Haines (1998) posits that students mistakenly believe their peers consume more alcohol than they actually do. As a result, college students drink more in an attempt to match the norm, albeit a false norm. According to Linkenbach (1999), students are more concerned with what they perceive as normative than with what they discern as healthy.

Social norms interventions focus on peer influences, which have a greater impact on individual behaviour than biological, personality, familial, religious, cultural and other influences (Borsari & Carey, 2001; Perkins, 2002). An extensive literature has documented the importance of peer influences and normative beliefs on health behaviours of youth (Glassman & Braun, 2010; Tavis, et al., (2010); Wechsler & Nelson (2008); DeJong, et al., (2009). Research suggests that these peer influences are based more on what we think others believe and do (the “perceived norm”) than on their real beliefs and actions (the “actual norm.”). This gap between “perceived” and “actual” is referred to as a “misperception” and its effect on behaviour provides the basis for the social norms approach (Berkowitz, 2004). Presenting correct information about peer group norms in a believable fashion is hypothesised to reduce perceived peer pressure and increase the likelihood that individuals will express pre-existing attitudes and beliefs that are health promoting. Thus, providing normative feedback to correct misperceptions of norms is the critical ingredient of the social norms approach (Berkowitz, 2004).

In the late 1980s health educators at Northern Illinois University (NIU) developed and implemented a social norm marketing campaign designed to curb alcohol abuse among students attending the university. It was found that NIU students mistakenly believed that 70% of the population engaged in high-risk drinking, yet at the time of the assessment, only 43% of the students took part in this behaviour (Carson, 1995). A campus-wide media campaign was implemented which exposed the fact that most NIU students have five or fewer drinks when they party (Haines, 1998). Classified advertisements, a weekly column, posters and leaflets were used to communicate the true norm (Haines, 1998). Five years after the onset of the social norms marketing intervention, the perceived high-risk drinking rate had fallen and the actual high-risk drinking rate had been reduced to 28% (Carson, 1995). As

a result of the social marketing interventions to correct the misconception of NIU students over a nine-year period, NIU reported a 44% reduction in their high-risk drinking rate (Haines, 1998). Not surprisingly, the negative consequences associated with heavy drinking fell as well. For example, there was a 31% reduction in reported alcohol-related injuries to the individual and a 54% reduction of alcohol-related injuries to others (Linkenbach, 1999).

A major limitation of this research project involved the non-experimental methods used to conduct the evaluation (Haines & Spear, 1996). Rather than randomly selecting participants, surveys were disseminated through undergraduate general education classes, which were reflective of the overall NIU under-graduate population. The response rate for the questionnaire averaged 89% over a five-year period. In any given year, at least 600 students participated in the survey in a school that usually enrolls about 23,000 students (Haines & Spear, 1996). In addition, no control groups were used for this study. Consequently, any change in the drinking rates may be the result of external influences. Even though, social norm theory has been applied to a number of social marketing interventions, research assessing the effectiveness of social norms interventions remains mixed. While the National Institute on Alcohol Abuse and Alcoholism's (2002) Call to Action: Changing the Culture of Drinking at U.S. Colleges lists use of a social norms approach to alcohol consumption as a promising practice, other prominent alcohol researchers such as Henry Wechsler (Wechsler & Wuethrich, 2002) are more sceptical.

A national assessment of social norms interventions revealed that almost half of the schools surveyed employed a social norms intervention, yet no decreases were found on the seven alcohol measures for the study (Wechsler, et al. 2003). In fact, there were increases in two of the five measures: alcohol use in the previous month and consumption of 20 or more drinks

in the previous month. In addition, schools which implemented social norms interventions reported some increases in lower level drinking, a result anticipated by the original theorists Perkins and Berkowitz (1986). Although, the extant literature shows that social norm theory has mostly been applied to students' drinking behaviour (Tavis, et al., 2010), experience shows that it could be applied to students' condom use and HIV testing behaviours.

The social norm theory and SCT assert that individuals are influenced by group norms, and people continually go through the process of setting goals respectively. However they do not indicate the process individuals go through to follow group norm or set goals for themselves. The stages of change model fills this gap by explaining the stages individuals go through to adopt a recommended behaviour. The next section explains the constructs of the stages of change model.

3.5.6 The Stages of Change Model

The Stages of Change Model (SOCM) also known as Transtheoretical Model (TTM) emerged from a comparative analysis of leading theories of psychotherapy and behaviour change in an effort to integrate a field that had fragmented into more than 300 theories of psychotherapy (Prochaska, 1984). The rationale for the model arose when Prochaska and colleagues conducted a comparative analysis of self-changers compared to smokers in professional treatments. Across these study populations, they identified ten processes of change that were predictive of successful quitting (DiClemente and Prochaska, 1982). These included consciousness raising from Freudian tradition (Freud, 1959), Contingency management from the Skinnerian tradition (Skinner, 1971) and helping relationships from Rogerian tradition (Rogers, 1951).

Prochaska and DiClemente (1983) revealed that behaviour change unfolds through a series of stages. This profound insight changed the course of their research and led to the development of Stages of Change Model/Transtheoretical Model. The SOCM by Prochaska et al., (1992) posits that individuals may pass through several stages of change when they are trying to modify their behaviour. These stages include pre-contemplation, contemplation, preparation, action, maintenance, termination, and relapse (Prochaska et al., 1992). During the pre-contemplation stage, the individual does not admit or recognise that the behaviour is a problem and there is no intention to change the behaviour any time within the next six months. Over time, as the individual realises that the behaviour is a problem through social marketing interventions, the individual moves into the contemplation stage. In the contemplation stage, the individual intends to change his behaviour in the next six months. They are more aware than pre-contemplators of the pros and cons of changing their behaviour. The balance between the pros and cons can keep people stuck in contemplation for long periods of time. The preparation stage occurs when the individual becomes ready to initiate change in the very near future, usually measured as the next month. At this stage, the individual makes changes to his or her behaviour or changes to his or her environment that will facilitate behavioural change.

Individuals who have successfully changed their behaviour for a period of between one day and six months are said to be in the action stage. The maintenance stage follows the action stage and is the time period when the individual integrates the behavioural change into his or her life and attempts to prevent relapse. Maintenance extends an indeterminate time period past the action stage and may last a lifetime. If continued vigilance is necessary and ensured, the behaviour change continues to be successful. The termination stage will occur only when it is certain that the problem behaviour is extinguished and will not return and when former

temptations are no longer a threat. According to SOCM, many attempts to change health-related behaviours do not follow a simple linear progression and may never reach the termination stage. Relapse is a common occurrence whereby an individual lapses into an earlier stage. The individual may cycle through the stages more than once as he or she attempts to change or extinguish particular behaviours. Hopefully, however, the individual learns from mistakes and uses that learning to move forward (Prochaska et al., 1992). SOCM specifies how one can be classified as being in each of these stages of change (i.e., pre-contemplation, contemplation, preparation, action, maintenance, etc) and also what can be done to make people feel more vulnerable so that they will move from the pre-contemplation stage to a later stage.

Based on a review of different schools of psychotherapy, Prochaska and DiClemente (1982) also identified ten (10) common processes of change which can be organised in two higher order factors: cognitive-affective processes and behavioural processes (Rosen, 2000). The five cognitive-affective processes are consciousness-raising (gathering information), self-re-evaluation (reconsidering consequences on oneself), dramatic relief (experiencing and expressing affect), environmental re-evaluation (considering consequences on others), and social liberation (attending to changing social norms). The five behavioural processes are counter conditioning (substituting new behaviours), stimulus control (controlling environmental cues), reinforcement management (being rewarded by self or others), helping relationships (using social support), and self-liberation (committing to change) (Rosen 2000; Cismaru et al., 2008). Overtime, researchers across the globe have explained, validated, applied and challenged core constructs of SOCM (Hall and Rossi, 2008; Nooar, et al., 2007; Prochaska et al., 2008b).

From initial studies of smoking, the SOCM rapidly has expanded to include investigations and applications to a broad range of health and mental health behaviours, mammography and cancer screening, medication compliance, HIV testing intentions, unplanned pregnancy prevention, pregnancy and smoking, sun exposure and physicians practicing preventive medicine (Prochaska et al., 2008a). The largest number of SOCM-related intervention studies have focused on smoking cessation (Aveyard et al., 1999; Curry et al., 1995; Dijkstra et al., 1999; Dijkstra et al., 2006; Hall et al., 2006; Hollis et al., 2005; O'Neill et al., 2000; Pallonen et al., 1998; Prochaska et al., 2001a, 2001b); Diet (Beresford et al., 1997; Brug et al., 1998; Campbell et al., 1994; Glanz et al., 1998; Horwath, 1999); and exercise (Cardinal and Sachs, 1996; Marcus et al., 1998; Rossi et al., 2005). The number of application is growing, from alcohol abuse (Project March, 1997; Carbonari and Diclement, 2000), to condom use (CDC, 1999; Parsons et al., 2000; Redding et al., 2007), to organ donation (Robbins et al., 2001) and multiple behaviour changes (Gold et al., 2000; Kreuter and Strecher, 1996; Steptoe et al., 2001). When examining how individuals change or modify their behaviours, the SOCM allows implementers to understand when particular shifts in cognitions, intentions, and behaviours occur and how they occur (Cismaru et al., 2008).

Despite the popularity of the SOCM, the evidence for the proposed stages of change remains contentious and the described psychological processes are not always supported by available data for the wide variety of behavioural contexts that the model could encompass (Michie and Abraham 2004). Indeed, a meta-analysis of 47 cross-sectional studies conducted in a variety of health contexts such as smoking cessation, substance abuse, exercise, diet change, psychiatric disorders and counselling determined that use of change processes varies by stage. However, the sequencing of processes is not consistent across health problems (Rosen, 2000). Indeed, in smoking cessation, more cognitive processes were used in earlier stages

(contemplation and preparation) than behavioural processes and behavioural processes were used most frequently during the action and maintenance stages of change, after people quit smoking (Prochaska et al., 1992). In contrast, in exercise adoption and diet change, use of behavioural and cognitive processes increased together.

The SOCM suffers from limitations, including problems with stage definition, measurement, and sequential transition and predictive utility (Wilson and Schlam, 2004). As a result, researchers have emphasised the need for experimental studies to test the SOCM (Michie and Abraham, 2004; Whitelaw et al., 2000). In addition, the SOCM focuses on understanding the process and providing recommendations to help people change but on a one-to-one basis, rather than through mass communication. Of benefit, however, is that the SOCM specifies cut-offs for passing from one stage to another and how to measure the cut-offs. The SOCM also suggests that depending on the stage people are in, different types of information are salient to them (Block and Keller, 1998). It provides advice on how to encourage people to move from one stage to another and to progress in changing behaviour. Therefore, aspects of this model can be combined with others to build a more comprehensive model that will provide a better understanding of the decision-making process when consumers consider whether or not to follow particular recommended health behaviour (Cismaru et al., 2008).

The SOCM explains the stages individual passes through to adopt a recommended behaviour but it does not indicate how attitude may shape the individual's decision at each stage. The theory of reasoned action fills this gap by explaining the relationship between attitudes, intention and behaviour of individual at each stage. The theory of reasoned action is reviewed in the next section.

3.5.7 Theory of Reasoned Action/Theory of Planned Behaviour

Theory of Reasoned Action (TRA) and Theory of Planned Behaviour (TPB) were developed to better understand relationship between attitudes, intention and behaviour (Fishbein, 1967). Many previous studies of these relationships found relatively low correspondence between attitudes and behaviour and some theorists proposed eliminating attitude as a factor underlying behaviour (Fishbein, 1993). In the work that led to development of the TRA/TPB, Fishbein and Ajzen (1975) distinguished between attitude towards an object and attitude towards behaviour with respect to that object and concluded that attitude toward the behaviour is much better a predictor of that behaviour than attitude towards the object at which the behaviour is directed. Fishbein and Ajzen (1975; 1980) and Ajzen (1991) clearly defined underlying beliefs, intentions, behaviour and measurement, and posit that it is critical to have a high degree of correspondence between measures of attitude, norm, perceived control, intentions, and behaviour in terms of action, target, context and time. Low correspondence between model construct measures on any of these factors will result in low correlations between TRA/TPB variables, while this correspondence will result in high correlations (Ajzen and Albarracin, 2007; Trafimow, 2007).

The Theory of Reasoned Action (TRA) and the Theory of Planned Behaviour (TPB) focus on theoretical constructs with individual motivational factors as determinants of the likelihood of performing a specific behaviour. TRA and TPB both assume the best predictor of a behaviour is its behavioural intention, which in turn is determined by attitude toward the behaviour and social normative perceptions regarding it (Montano and Kasprzyk, 2008). TRA asserts that the most important determinant of behaviour is behavioural intention. Direct determinants of individuals' behavioural intention are their attitude towards performing the behaviour and their subjective norm associated with the behaviour (Montano and Kasprzyk, 2008). TPB

adds perceived control over the behaviour, taking into account situations where one may not have complete volitional control over behaviour (Montano and Kasprzyk, 2008). Based on the discussion above, the researcher formulates the following null hypothesis:

Hypothesis 8: there will be no relationship between respondent's HIV-protective behaviour performance and their intention to perform the behaviour.

The TRA model postulates that attitude is determined by the individual's beliefs about outcomes or attributes of performing the behaviour (behavioural beliefs), weighted by evaluations of those outcomes or attributes. Thus, a person who holds strong beliefs that performing the behaviour will lead to a positive outcome will have a positive attitude towards the recommended behaviour. Conversely, a person who holds strong beliefs that performing the behaviour will lead to a negative outcome will have a negative attitude towards the recommended behaviour. Likewise, a person's subjective norm is determined by his or her normative beliefs, that is, whether important referent individuals approve or disapprove of performing the behaviour, weighted by his or her motivation to comply with those referents. A person who believes that certain referents think she should perform a particular behaviour and is motivated to meet expectations of those referents will hold a positive subjective norm. Conversely, a person who believes these referents may think she should not perform the behaviour will have a negative subjective norm. A person who is less motivated to comply with those referents will have a relatively neutral subjective norm (Montano and Kasprzyk, 2008).

TPB is an extension of the TRA and includes an additional construct: perceived control over performance of the behaviour (self-efficacy). The TPB, which focuses on the constructs of

attitude, subjective norms and perceived control, explain a large proportion of the variance in behaviour intention and predicts a number of different behaviours, including health behaviours (Montano and Kasprzyk, 2008). Evidence comes from hundreds of studies that have been summarised in several meta-analyses and reviews (Armitage and Corner, 2001; Albarracin, et al., 2001; Albarracin, et al 2003; Durantini, et al., 2006; Webb and Sheeran, 2006). Although TPB/TRA has been criticised, based on whether correlation results can explain behaviour (Weinstein, 2007), many published intervention study reports show that changing TPB constructs lead to subsequent change in behaviours (Albarracin, et al 2003, 2005; Rhodes et al., 2007; Kalichman, 2007).

TRA and TPB have been used successfully to predict and explain a wide range of health behaviours and intentions, including smoking, drinking, health services utilization, exercise, breast feeding, HIV/STD-prevention behaviours and use of contraceptives, Mammography, safety helmets, and seatbelts (Albarracin, et al 2001; Bandawe and Foster, 1996; Bosompra, 2001; Bogart et al 2000; Fisbein, 1993; Trafimow, 1996). Findings have been used to develop many effective behaviour change interventions (Fisher et al, 1995; Gastil, 2000; Herdeman, et al 2005; Jemmott and Jemmott, 2000).

Despite many potential benefits of using theory, one theory is unlikely to be enough for all or perhaps, even most health behaviour problems. It is, therefore, important to consider integrating theories to design and evaluate health behaviour interventions (Brewer and Rimer, 2008). Prochaska et al., (2008a) argue that no single theory can account for all complexities of behaviour change and state that a more comprehensive model is most likely to emerge from integration across major theories. Noar and Zimmerman (2005) suggest integration of theories as one method of moving forward with cumulative knowledge regarding health

behaviour. For example, while reviewing the role of behavioural theory in the U.S. National Youth Anti-Drug Media Campaign, Worden and Slater (2004) conclude that the campaign would have benefited from examination of the implication of a broader range of theories of messages effects at its inception.

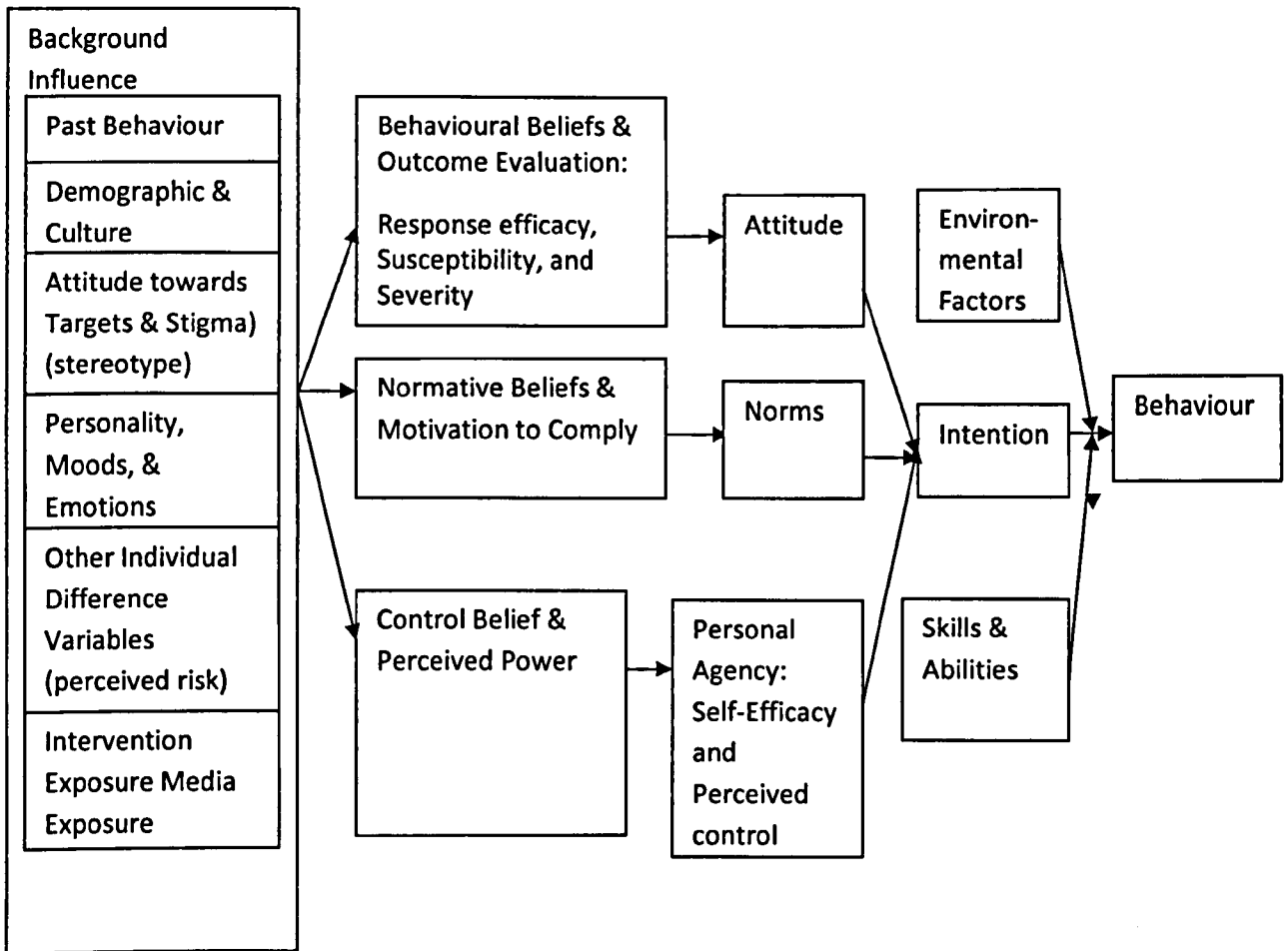
Indeed, designers of social marketing campaigns commonly employ a number of theories of attitude and behaviour change (Lapinski and Witte, 1998). This suggests the potential for creating a new integrated model with superior exploratory and predictive power, which could help improve our understanding of persuasion and help to direct future research (Cismaru et al., 2008). Fisbein and Cappella (2006) indicate that, although there are many theories of behavioural prediction, a careful consideration of these theories suggests that there are only a limited number of variables that must be considered in predicting and understanding any given behaviour. Thus, in 1992, the National Institutes of Mental Health sponsored a workshop with the primary architects of several theories of behavioural prediction, to develop a theoretical framework to integrate their constructs (Montano and Kasprzyk, 2008). With increased interest in theory integration in predicting and understanding human behaviour, Fisbein and Cappella, (2006) propose an integrative model of behaviour prediction that attempts to bring together a number of theoretical perspectives. This integrative model is presented in the next section and used as the conceptual framework of this new research effort. The researcher used this integrative model to understand and predict HIV/AIDS related behaviours of Ghanaians. This is because the model provides an integration of several leading theories of behavioural prediction and behaviour change as reviewed in the literature (Fisbein, 2000). When properly applied this integrative model is culturally specific because the relative importance of each of the variables in the model is expected to vary as a function of both the behaviour and the population in question (Airhihenbuwa and Obregon, 2000).

Fisbein (2000) asserts that each of the variables in the model can be found in almost any culture or population and that the theoretical variables contained in the model have been tested in over 50 countries. The next section discusses the constructs of Integrative Behaviour Model which serves as the conceptual framework for the study.

3.6 The Conceptual Framework and Role of Integrative Behavioural Change Model in Social Marketing Interventions

The Integrated Behaviour Model (IBM) has been used to understand behavioural intentions and behaviour for condom use and other HIV/AIDS-prevention behaviours (Kasprzyk, et al., 1998; Kensi, et al., 2001; Von Haeften, et al., 2001; Kasprzyk and Montano, 2007). The model has also served as the theoretical framework for two large multi-site intervention studies: the AIDS Community Demonstration Project (CDC, 1999), and Project Respect (Kamb et al., 1998; Rhodes et al., 2007). The IBM provides a theoretical basis from which to understand behaviour and identify specific beliefs to target (Montano and Kasprzyk, 2008). Irrespective of the numerous applications and benefits of Integrative Behaviour Model to social marketing interventions on HIV/AIDS, little (if any) empirical research has been conducted on the model, especially on its application to HIV/AIDS prevention in Ghana. In Ghana, the limited research carried out on HIV/AIDS has concentrated mostly on awareness creation and impact assessment (Tweneboah-Koduah, 2001; Benefo, 2004, Awusabo-Asare and Anarfi, 1997; Awusabo-Asare et al., 1993; Ghana Statistical Service (DHS, 1998, 2003, 2008; Adu-Mireku, 2003; Panford et al., 2001; Anne-Marie et al., 2004). To fill this gap, the Integrative Behaviour Model, presented in figure 3.1 serves as the theoretical underpinnings for this study to understand how it could be employed to design effective social marketing campaigns for HIV/AIDS preventions in Ghana.

Figure 3.1: An Integrative Behaviour Model



Source: Fishbein and Cappella (2006)

In figure 3.1, any given behaviour is most likely to occur if one has a strong intention to perform the behaviour, has the necessary skills and abilities required to perform the behaviour and there are no environmental or other constraints preventing behavioural performance. Indeed, if one has made a strong commitment (or formed a strong intention) to perform a given behaviour and has the necessary skills and abilities to perform the behaviour and if there are no environmental constraints to prevent the performance of that behaviour, there is a very high probability that the behaviour will be performed (Fishbein, 2000; Fishbein et al., 2001; Fishbein and Cappella, 2006). Jaccard et al., (2002) explain this further

and state that four other components directly affect behaviour. According to them, three of these are important in determining whether behavioural intention can result in behavioural performance.

First, even if a person has strong behavioural intention, she/he needs knowledge and skill to carry out the behaviour. Second, there should be no or few environmental constraints that make behavioural performance very difficult or impossible. Third, behaviour should be salient to the person and finally, experience performing the behaviour may make it habitual, so that intention becomes less important in determining behavioural performance for that individual. Montano and Kasprzyk (2008) argue that all these components and their interactions should be given serious attention when designing interventions programmes aimed to change health behaviour. They further assert that a careful analysis should be conducted of the behaviour and population studied to determine which of these components are most important to target to promote the behaviour. Very different strategies may be needed for different behaviours as well as for the same behaviour in different settings or populations (Montano and Kasprzyk, 2008). Based on the studies above, the researcher formulates the following null hypotheses:

Hypothesis 9: there will be no relationship between respondents' HIV-protective behavioural performance and their skills and abilities.

Hypothesis 10: there will be no relationship between respondents' HIV-protective behavioural performance and other environmental factors.

Further evaluation of the model suggests that there are three primary determinants of intentions:- namely attitude towards performing the behaviour, perceived norms concerning

performance of the behaviour, and self-efficacy with respect to performing the behaviour (Fishbein and Cappella, 2006). Attitude towards the behaviour is defined as a person's overall favourableness or unfavourableness towards performing the behaviour (Montano and Kasprzyk, 2008). Many theorists have described attitude as composed of affective and cognitive dimension (Triandis, 1980; Fishbein, 2007; French et al., 2005). Experiential or affect (Fishbein, 2007) is the individual's emotional response to the idea of performing a recommended behaviour on HIV/AIDs, for instance. It is believed that individuals with a strong negative emotional response to the recommended behaviour are more unlikely to perform it, whereas those with a strong positive emotional reaction are more likely to engage in it. Instrumental attitude is cognitively base, determined by beliefs about the outcomes of behavioural performance (Montano and Kasprzyk, 2008). Conceptualisation of experiential attitude (affect) is different from "mood or arousal" which Fishbein (2007) argues may affect intention indirectly by influencing perceptions of behavioural outcome likelihood or evaluation of outcomes. From this discussion, the researcher formulates the following null hypotheses:

Hypothesis 11: there will be no relationship between respondents' intentions to perform HIV-protective behaviours and their attitudes towards performing the behaviour,

Hypothesis 12: there will be no relationship between respondents' intentions to perform HIV-protective behaviours and their perceived norms concerning performance of the behaviour.

Perceived norm reflects the social pressure one feels to perform or not to perform a particular behaviour. Fishbein (2007) again posits that subjective norm as defined in Theory of Planned Behaviour as an injunctive norm may not fully capture normative influence. In addition, perception about what others in one's social network are doing may also be an important part of normative influence. This construct captures the strong social identity in certain cultures

which, according to some theorists, is an indicator of normative influence (Bagozzi and Lee, 2002; Triandis et al., 1988). Finally, Personal Agency, described by Bandura (2006) as, 'bringing one's influence to bear on one's own functioning and environmental events', was also proposed in the Institute of Medicine's report, speaking of health, as a major factor influencing behaviour intention (IOM, 2002). In the integrated behaviour model, personal agency consists of two constructs: self-efficacy and perceived control. Perceived control is one's perceived amount of control over behavioural performance, determined by one's perception of the degree to which various environmental factors make it easy versus difficult to carry out the recommended behaviour.

In contrast, self-efficacy is one's degree of confidence in the ability to perform the behaviour in the face of various obstacles or challenges. Although only a few studies have discussed the similarities and differences between self-efficacy and perceived control (Ajzen, 2002; Fishbein, 2007), Montano and Kasprzyk (2008) suggest the utility of including both measures. The relative importance of these psychosocial variables as determinants of intention will depend upon both the behaviour and the population being considered. Thus, for example, one behaviour may be determined primarily by attitudinal considerations, whereas another may be primarily influenced by self-efficacy. Similarly, a behaviour that is attitudinally driven in one population or culture may be normatively driven in another. Clearly, to understand why people do or do not hold a given intention (or perform a given behaviour), it is important to first determine the degree to which that intention (or behaviour) is under attitudinal, normative, or self-efficacy control in the population in question (Fishbein, 2000). Thus, to design effective social marketing interventions on HIV/AIDS, it is important first to determine the degree to which that intention is influenced by attitude, perceived norm, and personal agency.

In Figure 3.1, attitudes, perceived norms, and self-efficacy are all functions of underlying beliefs about - the outcomes of performing the behaviour in question, the normative proscriptions and/or behaviours of specific referents, and the specific barriers to (or facilitators of) behavioural performance. Thus, the more one believes that performing the behaviour in question will lead to “good” outcomes and prevent “bad” outcomes, the more favourable should be one’s attitude toward performing the behaviour (Fisbein, 2002). This would be true for such HIV/AIDS-related behaviours as using condom, abstinence from sex, keeping to one sexual partner and getting screened for HIV/AIDS. Similarly, the more one believes that specific others are (or are not) themselves performing the behaviour in question, or that these important others think that one should (or should not) perform the behaviour in question and the more one is motivated to be like or to comply with, those specific others, the more social pressure one will feel (or the stronger the subjective norm) with respect to performing (or not performing) the behaviour (Bagozzi and Lee, 2002; Montano and Kasprzyk, 2008). Finally, the more one perceives that one can (have the necessary skills and abilities to) perform the behaviour, even in the face of specific barriers or obstacles, the stronger will be one’s self-efficacy with respect to performing the behaviour. Based on the discussions above, the following hypothesis is formulated.

Hypothesis 13: there will be no relationship between respondents’ intentions to perform HIV-protective behaviours and their self-efficacy with respect to performing the behaviour.

Although an investigator can sit in her or his office and develop measures of attitudes, perceived norms, and self-efficacy, she or he cannot tell what a given population (or a given person) believes about performing a given behaviour. Thus, ultimately, one must go to members of that population to identify salient outcome and normative and efficacy beliefs.

Once understood in this way, these beliefs can serve as the basis for messages and other interventions that can have an impact on the target behaviour through the mediating mechanisms (Fisbein and Capella, 2006).

Finally, in figure 3.1, the role played by more traditional demographic, personality, attitudinal, and other individual difference variables (such as perceived risk or sensation seeking) are presented. These types of variables play primarily an indirect role in influencing behaviour (Fishbein and Cappella, 2006). For example, although men and women may hold different beliefs about performing some behaviours, they may hold very similar beliefs with respect to others. Similarly, rich and poor, old and young, those from developing and developed countries, those who do and do not perceive that they are at risk for a given illness, those with favourable and unfavourable attitudes toward doctors, those high and low in sensation seeking and those who do or do not have health insurance may hold different attitudinal, normative, or control beliefs with respect to one behaviour but may hold similar beliefs with respect to another (Montano and Kasprzyk, 2008). Thus, for example, Blacks and Whites may have very similar beliefs about smoking but very different beliefs about getting a colonoscopy.

The IBM shows that, when demographic, personality, or individual difference variables are systematically related to underlying beliefs, they are likely to be related to the behaviour in question. However, when these “external” or “background” variables are unrelated to behavioural, normative, or control beliefs, they are unlikely to be related to the behaviour in question. Thus, there is no necessary relation between these external or background variables and any given behaviour. Nevertheless, external variables such as cultural and personality differences and differences in a wide range of values should be reflected in the underlying

belief structure. When properly applied, the integrative model recognises, and is sensitive to, cultural and population differences (Airhihenbuwa and Obregon, 2000).

For example, as described above, the relative importance of each of the variables in the model should vary as a function of both the behaviour and the population being investigated. Moreover, application of the model requires one to identify the behavioural, normative, and control beliefs that are salient in the population being considered. Thus, the Integrative Behaviour Model is both population and behaviour specific (Fishbein, 2000).

3.7 Summary

Social marketing has been used as a useful tool in the promotion of HIV/AIDS education and prevention materials targeted at risk populations, most notably, sex workers and gay men. Social marketing professionals and researchers have over the years addressed the challenges that social marketers experience in creating campaigns that adequately address HIV/AIDS. After Weibe's (1951) question of whether commercial marketing techniques could be applied to a non-profit arena, marketers for the first time began to think seriously to find out if methods used very successfully to influence behaviour in the commercial sector might be transferrable to social marketing. The 1960s saw the introduction of pioneering social marketing-styled interventions that is usually attributed to Kotler and Zaltman (1971) after their article "Social Marketing: an approach to planned social change" appeared in Journal of Marketing. Today, social marketing thinking and techniques have spread to the developed world where social marketing is now located at the centre of health improvement in several countries.

Irrespective of its general acceptance to influence health-related behaviours, social marketing is still a mystery to most and misunderstood by many. Many social marketers have provided varied definitions for social marketing but the thrust of their definitions is using marketing techniques alongside other concepts and techniques to achieve specific behavioural goals for the benefit of the society. Social marketing experts have attempted to pinpoint what differentiates social marketing from other approaches to social change such as legislation and education. They have, therefore, come out with what they call social marketing framework and argue that its emphasis on voluntary behaviour change is what makes it unique. Social marketing experts believe that the design of social marketing interventions that yield desirable changes in behaviour (whether upstream or downstream), can best be done with an understanding of theories of behaviour change and ability to use them skilfully in research and practice. This study has, therefore, reviewed literature on the following behavioural change model/theory; the health believe model; theory of reasoned action/theory of planned behaviour; the stages of change model; social norm theory; social cognitive theory; protection motivation theory; and extended parallel process model (EPPM).

Despite many potential benefits of using theories, experts argue that one theory is unlikely to be enough for all or perhaps, even most health behaviour problems. It is, therefore, important to consider integrating theories to design and evaluate health behaviour interventions. Fishbein proposes an integrative model of behaviour that attempts to bring together a number of theoretical perspectives. The model is used as the conceptual anchor of this new research effort because when properly applied, this model is culturally specific. The relative importance of each of the variables in the model is expected to vary as a function of both the behaviour and the population in question.

The integrated behaviour model has been used to understand behavioural intentions and behaviour for condom use and other HIV/AIDS-prevention behaviours. The model has also served as the theoretical framework for a number of large multi-site intervention studies and provides a theoretical basis from which to understand behaviour and identify specific beliefs to target. Although, the model has been applied to numerous social marketing interventions on HIV/AIDS, its application to social marketing intervention in Ghana is very limited. This new research effort, therefore, seeks to understand how the integrative behaviour model could be employed to design effective social marketing campaigns for HIV/AIDS preventions in Ghana. The next chapter explains the various quantitative and qualitative concepts of data collection and analysis techniques, and indicates the methodological stance adopted to achieve the aim and objectives of this research.

Chapter 4

Research Design and Methodology

4.0 Introduction

The preceding chapter reviews literature on social marketing and behavioural change theories and the role they play in social marketing intervention programmes on HIV/AIDS. This chapter discusses the various research paradigms and associated methods that could be utilised by researchers. The chapter specifically discusses philosophical worldviews which include post-positivism, social constructivism, advocacy and participatory, pragmatism types of research design, and methodology available to researchers. The chapter also explains the concepts of the various quantitative and qualitative data analysis techniques and indicates the methodological stance adopted to achieve the aim and objectives of this research. To refresh the minds of readers, the chapter starts by re-stating the objectives and their respective null hypotheses as indicated below:

1. *To determine the nature and extent of social marketing interventions on HIV/AIDS in Ghana.* To achieve this objective, in-depth interviews were conducted to elicit information from the implementers of social marketing interventions programmes on HIV/AIDS.
2. *To ascertain the impact of the social marketing interventions on HIV/AIDS related behaviours in Ghana.* Based on this objective, following null hypothesis was formulated:

Hypothesis 6: there will be no significant difference between males and females and their decision to use condom to protect themselves against HIV/AIDS.

3. *To evaluate the behavioural intentions, knowledge and skills, behavioural performance and other environmental factors which could enhance or prevent Ghanaians from adopting recommendations of social marketing interventions on HIV/AIDS.* The following null hypotheses were formulated to achieve this objective:

Hypothesis 8: there will be no relationship between respondent's HIV-protective behaviour performance and their intention to perform the behaviour.

Hypothesis 9: there will be no relationship between respondents' HIV-protective behavioural performance and their skills and abilities.

Hypothesis 10: there will be no relationship between respondents' HIV-protective behavioural performance and other environmental factors.

4. *To determine the perceived norm, personal agency (self efficacy) and attitude of Ghanaians toward HIV/AIDS intervention programmes.* To achieve this objective, the following null hypotheses were formulated:

Hypothesis 2: there will be no significant difference between age groups of respondents and their perceived behavioural control (self efficacy).

Hypothesis 3: there will be no significant difference between age groups of respondents and their perceived norms.

Hypothesis 11: there will be no relationship between respondents' intentions to perform HIV-protective behaviours and their attitudes towards performing the behaviour.

Hypothesis 12: there will be no relationship between respondents' intentions to perform HIV-protective behaviours and their perceived norms concerning performance of the behaviour.

Hypothesis 13: there will be no relationship between respondents' intentions to perform HIV-protective behaviours and their self-efficacy with respect to performing the behaviour.

5. *To investigate the response efficacy, perceived susceptibility and perceived severity of Ghanaians towards HIV/AIDS.* To achieve this objective, the following null hypotheses were formulated:

Hypothesis 1: there will be no significant difference between respondents' current level of education and their susceptibility towards HIV/AIDS pandemic.

Hypothesis 4: there will be no relationship between respondents' intention to perform HIV-protective behaviour and their perceived susceptibility towards the disease.

Hypothesis 5: there will be no relationship between respondent's HIV-protective behaviour performance and their perceived severity of the disease.

Hypothesis 7: there will be no relationship between respondents' performance of HIV-protective behaviour and their response efficacy towards interventions on the pandemic.

6. *To recommend an integrative behaviour model that could be used to design effective social marketing intervention programmes on HIV/AIDS in Ghana.*

To achieve the research aim and objectives and test the hypotheses which have been formulated, the researcher discusses the concepts of the various quantitative and qualitative data analysis techniques and indicates the methodological stance adopted for the study in the next sections.

4.1 Ontology, Epistemology and Methodology

Easterby-Smith et al., (2002) argue that all the research paradigms consist of three elements that the researcher must consider. These include ontology, epistemology and methodology. Ontology is concerned with the nature of reality. This raises questions of the assumptions researchers have about the way the world operates and the commitment held to particular views (Saunders, et al., 2009). They further state that the two aspect of ontology are objectivism and subjectivism. Objectivist (positivist) portrays the position that social entities exist in reality external to social actors concerned with existence (Saunders, et al., 2009). However, Subjectivist (social constructivist) holds that social phenomena are created from the perception and consequent actions of those social actors concerned with their existence.

Epistemology is set of assumptions about the most appropriate methods of inquiring into the nature of the world (Xingang, 2008); it is the branch of philosophy that studies knowledge. Epistemology attempts to answer what distinguishes true (adequate) knowledge from false (inadequate) knowledge; practically, epistemology translates questions into issues of scientific methodology (Xingang, 2008). Once the epistemological stance for the research has been established and the questions that need to be addressed have been identified, it is necessary to decide on the kind of data to be collected and to determine how it should be analysed. The next section explains this further, by discussing the philosophical worldviews of research.

4.2 Philosophical Worldviews

The understanding of research philosophy can help researchers to clarify research designs, recognize which design will work well in the field investigated, and identify designs that may be outside the researcher's past experience (Easterby-Smith (2002). He further argues that failure to think about the philosophical issues such as the relationships between data and

theory will seriously affect the quality of marketing research. There are four philosophical worldviews that guide research namely post-positive, social construction, advocacy/participatory and pragmatic paradigms (Creswell, 2009). The following sections highlight the assumptions for the various philosophical worldviews.

4.2.1 The Post-Positivist Worldview

A post-positivist might begin by recognizing that the way scientists think and work and the way ordinary people think in their everyday lives are not distinctly different (Guba and Lincoln, 1994). According to post-positivism, scientific reasoning and common sense reasoning are essentially the same process (Webb, 1992), and there is no significant difference between the two processes in their nature, but there is only a difference in degree of understanding. Sayer (1992) further argues that scientists, for example, follow specific procedures to assure that observations are verifiable, accurate and consistent; however, people don't always proceed so carefully in everyday reasoning.

Phillips and Burbules, (2000) contend that post-positivism represents the thinking after positivism, challenges the traditional notion of the absolute truth of knowledge, and recognises that we cannot be “positive” about our claim of knowledge when studying the behaviour and actions of humans. The post-positivist tradition comes from 19th century writers, such as Comte, Mill, Durkheim, Newton, and Lock (Smith, 1983), and it has been most recently articulated by writers such as Phillips and Burbules (2000). Post-positivists hold a deterministic philosophy in which causes probably determine effects or outcomes. Thus, the problem studied by post-positivists reflects the need to identify and assess the causes that influence outcomes, such as found in experiment. In the scientific methods, the accepted approach to research by post-positivists and individuals begins with theory, collect

data that either supports or refutes the theory, and then makes necessary revisions before additional tests are made (Creswell, 2009). Matthews and Ross (2010) summarise post-positivists assumptions as (a) knowledge which can be observed by the senses, (b) knowledge of the social phenomenon based on what can be observed and recorded rather than subjective understandings, (c) data gathered to test hypothesis which have been generated from existing theory, and (d) the independence of the researcher that has no impact on the data.

4.2.2 The Social Constructivist Worldview

Social constructivism (often combines with interpretivism; Mertens, 1998) is such a perspective and it is typically seen as an approach to qualitative research. Social constructivists hold assumptions that individuals seek understanding of the world in which they live and work and develop their subjective meanings of their experiences - meanings directed to certain objects or things. Prawat and Floden (1994), Posit that social constructivists hold assumption that knowledge is a social product. They further posit that knowledge evolves through a process of negotiation within discourse communities and that the product of this activity like those of any human activity is influenced by cultural and historical factors. Thus, the more open-ended the questioning, the better, as the researcher listens carefully to what people say or do in their life settings.

4.2.3 The Advocacy and Participatory Worldview

This position arose during the 1980s and 1990s from individuals who felt that the post-positivist assumptions imposed structural laws and theories that did not fit marginalised individuals in our society or issues of social justice that needed to be addressed (Creswell, 2009). This worldview is typically seen with qualitative research but it can be a foundation for quantitative research as well. Historically, some of the advocacy/participatory (or

emancipatory) writers have drawn on the work of Marx, Adorno, Marcus, Habermas, and Freire (Neuman, 2000). Fay (1987), Heron and Reason (1997) and Kemmis and Wilkinson (1998) are more recent writers to read on this perspective. In the main, these inquirers felt that the constructivist stance did not go far enough in advocating for an action agenda to help marginalised people. An advocacy/participatory worldview holds that research enquiry needs to be intertwined with politics and a political agenda. Thus, the research contains an action agenda for reforms that may change the life of the participants, the institutions in which individuals work or live and the researcher's life (Creswell, 2009). Matthews and Ross (2010) assert that this approach studies the social world from the perspective of groups of people whose understandings and experiences of the social world have been ignored or hidden. They further assert that research within such theoretical framework may focus on the discourse or language that is used by other people, who are perceived to be more powerful, to describe the group. There may also be an emphasis on the empowerment of the research subjects and on research that will challenge current discourse and practice and initiate change (Matthews and Ross, 2010). Thus, advocacy research provides a voice for these participants, raising consciousness or advancing an agenda for change to improve their lives. It becomes a united voice for reform and change.

4.2.4 The Pragmatic Worldview

Pragmatism derives from the work of Peirce, James, Mead, and Dewey (Cherryholmes, 1992). Recent writers include Rorty (1990), Murphy (1990), Patton (2002), Cherryholmes (1992). There are many forms of this philosophy but for many, pragmatism as a worldview arises out of action, situation, and consequences rather than antecedent conditions (as post-positivism) (Creswell, 2009). There is a concern with application- what works- and solution to problems. Instead of focusing on methods, researchers emphasise the research problem and

use all approaches available to understand the problem (Patton, 2002). As a philosophical underpinning for mixed methods studies, Morgan (2007) and Patton (2002) convey its importance for focusing attention on the research problem in social science research and then using pluralistic approaches to derive knowledge about the problem. Saunders, et al., (2009) argue that within pragmatism, the most important determinant of epistemology and ontology is the research question because one approach may be more appropriate than the other for answering particular questions.

Tashakkori and Teddlie (1998) suggest that it is more appropriate for the researcher in a particular study to think of the philosophy adopted as a continuum rather than opposite positions. Tashakkori and Teddlie (1998) contend that pragmatism is intuitively appealing, largely because it avoids the researcher engaging in what they see as pointless debates about quantitative and qualitative research methods. In their view the researcher should study what interests him/her and is of value, then use different approaches in which he/she deems appropriate, and use the results in ways that can bring about positive consequences within his value system (Tashakkori and Teddlie, 1998).

4.2.5 Research Philosophy Adopted for the Study

The pragmatic world view is adopted for the study. The reason being that instead of focusing on methods, emphasis is placed on the research problem and uses all approaches available to understand the problem. Morgan (2007); and Patton (2002) posit that it is important to focus attention on the research problem in social science research and then use pluralistic approaches to derive knowledge about the problem. Social marketers working to promote health have also learnt that rigorous quantitative research surveys do not necessarily provide all of the data needed to develop effective communications (Weinreich, 1996). Consequently,

qualitative methods such as focus groups and in-depth interviews, as well as less precise but useful semi-quantitative approaches, such as intercept surveys, have emerged as part of their research repertoire (Weinreich, 1996). In an ideal social marketing programme, researchers use both quantitative and qualitative data to provide a more complete picture of the issue being addressed, the target audience and the effectiveness of the programme itself (Weinreich, 1996). Some researchers use either quantitative or qualitative research approach to health research however, experts in health interventions posit that, to answer the complex health questions being asked today, mixed-method designs are preferred and are growing in acceptance (Creswell, 2003; Forthofer, 2003; Tashakkorri and Teddlie, 1998).

Easterby-Smith et al., (2002) assert that, whether using quantitative, qualitative or mixed method approach, secondary and primary data complements each other and can be used efficiently and effectively. The next section provides explanation, advantages and disadvantages for primary and secondary data.

4.3 Primary versus Secondary Data

Primary data are collected specifically for the research project using a data collection method that has been chosen by the researcher and using a data collection tool such as questionnaire or interview guide (Matthew and Ross, 2010). Creswell (2003) posits that the most significant advantages of primary data are its fitness and accuracy as compared with secondary data. Malhotra (2007) however, argues that, collecting primary data can be very expensive and time consuming. Secondary data on the other hand, are data that have already been collected for the purposes other than the problem at hand (Malhotra, 2007). Secondary data already exists, so is likely to be less expensive than collecting information freshly. It is, therefore, fast to obtain and can offer a unique benefit for international studies, where barriers of distance and communication can lead to rather expensive and time-consuming data

gathering (Bradley, 2007). Experience shows that, sometimes it might not be possible and/or relevant for the researcher to collect primary data. In such instances, the researcher will have to depend on secondary data.

Due to these limitations, Burns and Bush (2010) suggest that researchers must ask the following questions before they utilise secondary data: what was the purpose of the study, who collected the data, what data was collected, how was the data collected and how consistent is the data with other data. Burns and Bush (2010) further suggest that researchers should identify what they wish to know and what they already know about their topic, develop a list of key terms and names, begin to search using several of the library sources, and identify individuals or organisation that might know something about the topic.

This research employs both secondary and mixed primary research methods. The sources of secondary data for the study include journal articles, text books, magazines, internet, annual reports, sentinel survey reports on social marketing and HIV/AIDS. The above were reviewed from London Metropolitan University's library and e-resources, the University of Ghana e-resources, libraries of Ghana AIDS Commission, Ghana National AIDS Control Programme, Ghana Health Service, Ministry of Local Government and Rural Development Ghana, Ghana Social Marketing Foundation and the researcher's personal library. Zotoc software, Google scholar, Copac software etc. were useful tools for identifying internet resources.

Research design whether qualitative, or quantitative in nature, often depends on the epistemological stance of the researcher (Denscombe, 2003). The next section discusses the types of research design (methodology) that could be used by researchers.

4.4 Research Design

As stated earlier, there are three types of research design: quantitative, qualitative and mixed methods. The next sections provide explanations for these methods.

4.4.1 Mixed Methods Strategies

Mixed methods strategies are less known than both quantitative and qualitative approaches. The concept of mixing different methods originated in 1959 when Campbell and Fisk used multi-methods to study validity of psychological traits. Recognising that all methods have limitations, researchers felt that biases inherent in any single method could neutralise or cancel the biases of other methods. Triangulating data sources-a means for seeking convergence across qualitative and quantitative methods- was born (Creswell, 2009). By the early 1990s, the idea of mixing moved from seeking convergence to actually integrating quantitative and qualitative data. For instance, the results from one method can help identify participants to study or questions to ask for other method (Tashakkori & Teddlie, 1998). Alternatively, quantitative and qualitative data can be merged into one large database or the results used side by side to reinforce each other (Creswell and Plano Clark, 2007). Or the methods can serve a larger, transformative purpose to advocate for marginalised groups in society (Merten, 2003).

The reasons for mixing methods have let writers from around the world to develop procedures for mixed methods strategies of inquiry, and these take the numerous terms found in the literature, such as multimethod, convergence, integrated, and combined (Creswell and Plano Clark, 2007), and shape procedures for research (Tashakkori & Teddlie, 2003). Burns and Bush (2010) assert that in mixed methods strategies, it is common to begin with exploratory, qualitative techniques. In this case, qualitative phase serves as a foundation for

the quantitative phase of the project. Alternatively, the study may begin with a quantitative method followed by a qualitative method to help the researcher understand the qualitative findings (Griffen and Duley, 2000).

Recognising that all methods have limitations, this research adopts mixed methods strategy to gain the best of both research worlds and overcome biases inherent in any single method.

The research begins with exploratory, qualitative techniques to develop questionnaire for the study.

4.4.2 Qualitative Research Approaches

Qualitative research is a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem (Creswell, 2007). McComack Brown (2005) contends that qualitative research uses words to discover things and to understand phenomena. It is a subjective approach to research that considers the whole as greater than the sum of its parts. Although it uses research questions, it is less concerned with sample size than its quantitative counterparts. It uses inductive reasoning and strives for uniqueness rather than generalisation (McComack Brown, 2005). Denzin and Lincoln (2000) assert that qualitative research process involves emerging questions and procedures, data typically collected in the participant's setting, data analysis inductively building from particulars to general themes, and the researcher making interpretations of the meaning of the data. Those who engage in this form of inquiry support a way of looking at research that respects an inductive style, a focus on individual meaning, and the importance of rendering the complexity of a situation (Creswell, 2009).

Patton (2002) distinguishes qualitative theoretical perspective by their foundational questions. Patton (2002) contends that sometimes it is not possible, or desirable, to use fully structured or formal methods to obtain information from respondents. Creswell (1998) has therefore, identified eight reasons that might inform the use of qualitative research methodology. They include the nature of research question, whether the topic needs to be explored further or a detail view is needed, whether the researcher wants to study the respondents in a natural setting, have sufficient time and resources, audience is receptive to qualitative research, emphasise the researcher's role as an active learner, and interest in writing in a literary style. Qualitative research is unstructured, exploratory in nature and based on small samples, and may utilise techniques such as in-depth interview, focus group interview and word association (Malhotra, 2007). Qualitative research is used in many disciplines, including health promotion and education, and has no theory that is directly its own. Qualitative research is sometimes said to be a multi-method, as it draws upon many approaches to foster understanding of phenomena (McComack Brown, 2005). A qualitative researcher could adopt one of the following four approaches:

4.4.2.1 Case Study Research

Sociologists and anthropologists have traditionally used case studies. However, recently other disciplines such as health education have come to embrace this qualitative approach to understanding a problem. Kegler and Wyatt (2003) used a multiple case study approach to identify successful mobilisation characteristics of five neighbourhoods teen pregnancy prevention programmes. A case study is an exploration of a bounded system or a case (or multiple cases) overtime through detailed, in-depth data collection involving multiple sources of information (Creswell, 1998). A bounded system is one that is bound by time and place, for example, an HIV/AIDS programme for youth at a particular location and for a delineated

period of time. Most often a case study is defined by what is being studied (eg.. individual, family, programme, event) (Stake, 2000) rather than as a method of research (Creswell, 1998). McComack Brown (2005) asserts that case studies are the preferred qualitative research method when “how” or “why” questions are asked, when the researcher has little or no control over the events, when holistic understanding of a problem is required, when there is a contemporary focus within a real-life context and when research questions are limited in number and are tied to specific events and their inter-relationships. One of the greatest advantages of a case study is the in-depth of information it provides. However, case study research requires the researcher to spend considerable time, be onsite, be personally involved with activities of the case and revise meanings of what is occurring (McComack Brown, 2005).

4.4.2.2 Ethnography Research

Ethnography research is a technique borrowed from anthropology, is a detailed, descriptive study of a group and its behaviour, characteristics, culture, and so on. It comes from the Greek words, ‘ethnos’ and ‘graphos’, for “group of people” and “writings about” (McComack Brown, 2005). Creswell (1998) defines ethnography as a description and interpretation of a cultural or social group or system. Chambers (2000) defines ethnography as those varieties of inquiry that aim to describe or interpret the pace of culture in human affairs. Regardless of which definition is used, anthropologists have used ethnography to gain insights into human behaviour by living among their subjects for prolonged periods to study their emotions, behaviours, reactions to the demands of everyday events (McComack Brown, 2005). Ethnography uses several different types of research, including immersion, participant observation, and informal and ongoing in-depth interview. Ethnographers pay close attention

to words, metaphors, symbols, and stories people use to explain their lives and communicate with one another (Taylor, 2003).

Ethnography is being used in many other disciplines today, including education and public health promotion. For instance, using an ethnographic approach, Coreil, et al., (2004) focused on the perceived role of support groups in shaping how women participating in breast cancer support groups' view breast cancer and recovery. Ethnographic research is an area of ethical sensitivity. Researchers immersing themselves in others' homes, schools, and places of work and play in order to record the behaviours, comments, reactions, and emotions of persons who do not know the purposes of the research are unethical. As the technique grows more common in marketing research, researchers must become adept in the skills necessary to be "present and known" without interfering with normal behaviour. Fortunately, most behaviour marketers are interested in public behaviour (Burns and Bush, 2010).

4.4.2.3 Grounded Theory Research

Grounded theory, first introduced in the 1960s and having roots in sociology, involves the use of systematic inductive guidelines for collecting and analysing data to generate theory (Charmaz, 2000). The pioneering authors of grounded theory, Glaser and Strauss, believed that theories should not be created *a priori* rather it should be grounded in field-derived data (Creswell, 1998). The goal of grounded theory is to develop theory to aid in understanding phenomena. Wilson, et al., (2002) used grounded theory to explain how diverse men and women living with HIV/AIDS manage their symptoms and medication side effects and how they decide which treatments to follow. Grounded theory was used to generate a dense conceptual explanation of the interplay between symptom management and medication adherence (Wilson, et al., 2002). Grounded theory has three basic elements: concepts, categories, and propositions (Strauss and Corbin, 1990). According to them,

concepts are the basic units from which the theory is developed. Concepts are grouped into categories, which become the cornerstones of theory development and propositions are the relationships between a category and its concepts.

4.4.2.4 Phenomenology Research

Phenomenological research is a strategy of inquiry in which the researcher identifies the essence of human experiences about a phenomenon as described by participants (Creswell, 2009). Understanding the life experiences marks phenomenology as a philosophy as well as method, and the procedure involves studying a small number of subjects through extensive and prolonged engagement to develop patterns and relationships of meaning (Moustakas, 1994). In this process, the researcher brackets or set aside his or her own experiences in order to understand those of the participants in the study (Neiswiadomy, 1993). Researchers using phenomenology search for central underlying meaning of an experience or phenomenon. Phenomenology has been used in a variety of disciplines including health promotion and education (McComack Brown, 2005). Hycner (1985) describes phenomenology as an approach and encourages researchers not to take a cookbook approach to phenomenology. Hycner describes the approach he takes to analysing phenomenological data. Typically, data are collected through in-depth interviews with the persons who have experienced the phenomenon of interest (Hycner, 1985). Phenomenological studies are not frequently found in the health education literature. However, the use of phenomenology in understanding a particular health issue is often used. For instance, to better understand how people living with HIV/AIDS view their disease, Anderson and Spencer (2002) interviewed 58 men and women with AIDS to describe their cognitive representations of their illness.

This research adopts a case study approach because the researcher seeks to assess the coverage and impact of social marketing intervention programmes on HIV/AIDS in Ghana from year 2000 to date. It is preferred qualitative research method because “how” or “why” questions are asked, the researcher has little or no control over the events, holistic understanding of a problem is required and research questions are tied to specific events and their inter-relationships (McComack Brown, 2005)

4.4.2.5 Qualitative Sample Selection Methods

The critical difference between probability and non-probability sampling is the mechanism used in the sample design. With a non-probability sampling method, selection is not based on chance or randomness. Instead, a non-probability sample is based on an inherent biased selection process, typically in order to reduce the cost of sampling (Yang, et al., 2006), so, with a non-probability sample, the researcher achieves some savings, but at the expense of using a sample that is not truly representative of the population (Thomas, et al., 2004). There are four non-probability sampling methods: convenience samples, purposive sample, snow ball samples, and quota samples (Burns and Bush, 2010). A discussion of each method follows.

4.4.2.5.1 Convenience Samples

Convenience samples are samples drawn at the convenience of the interviewer. Accordingly, the most convenient areas to a researcher in terms of reduced time and effort turn out to be high-traffic areas such as shopping malls or busy pedestrian intersections. The selection of the place and, consequently, prospective respondents is subjective rather than objective. This can lead to certain members of the population being automatically eliminated from the sampling process (Peterson, 2001). For instance, there are those people who may be

infrequent visitors or even non-visitors to the particular high-traffic area used by the researcher. On the other hand, in the absence of strict selection procedures, there are members of the population who may be omitted because of their physical appearance, general demeanour, or the fact that they are in a group rather than alone (Burn and Bush, 2010). Wyner (2001) argues that convenience samples can be seriously misleading.

4.4.2.5.2 Purposive Samples

Purposive sampling is used when subjects are intentionally selected to represent a predefined characteristics or traits (Cottrell and McKenzie, 2005). The researcher, exercising judgment, chooses the elements to be included in the sample because he or she believes that they are representative of the population of interest or are otherwise appropriate (Malhotra, 2007). Purposive sampling is low in cost, convenient, and quick, however, it does not allow direct generalisation to a specific population, usually because the population is not defined explicitly. Purposive sampling is subjective and its value depends entirely on the researcher's judgement, expertise, and creativity. It may be useful if broad population inferences are not required (Malhotra, 2007).

4.4.2.5.3 Snowball Samples

Snowball samples require respondents to provide the names of prospective respondents. Such samples begin when the researcher compiles a short list of possible respondents that is smaller than the total sample desired for the study. After respondents are interviewed, each is queried about the names of other possible respondents (Struthers, 2002). In this manner, additional respondents are referred by previous respondents. Snowball samples are most appropriate when there is a limited and disappointingly short sample frame and when respondents can provide the names of others who qualify for survey. The non-probability

aspects of snowball sampling come from selectivity used throughout. Even though they rely heavily on social network, snowball samples are often useful in industrial marketing research situations (Brown, 2005).

4.4.2.5.4 Quota Samples

Quota sampling is used to improve representativeness. The logic behind quota sampling is that certain relevant characteristics describe the dimension of the population (Blumberg, et al., 2011). They conclude that if a sample has the same distribution on these characteristics, then it is likely to be representative of the population regarding other variables over which the researcher has control. The relevant control characteristics, which may include sex, age, and race, are identified on the basis of judgment (Malhotra, 2007). Once the quotas have been assigned, there is considerable freedom in selecting the elements to be included in the sample. The only requirement is that the elements selected fit the control characteristics (Steven, 2002). Quota samples are appropriate when the researcher has a detailed demographic profile of the population on which to base the sample. When done conscientiously and with a firm understanding of the population's quota characteristics, some researchers feel that quota sampling can rival probability sampling (Burns and Bush, 2010). However, if a characteristic that is relevant to the problem is overlooked, the quota sample will not be representative (Malhotra, 2007).

The research population for the qualitative research constitutes all institutions involved in HIV/AIDS prevention in Ghana and the sample frame on the institutions was obtained from Ministry of Health, Ghana. In all six (6) respondents were interview to provide information for the research. Due to lack of standard definition of the ideal sample size for qualitative research, the sample size selection was based on the theoretical saturation paradigm defined by Guest et al. (2006). They posit that theoretical saturation occurs in as few as twelve (12)

interviews and that for a “high level”, overarching themes, a sample of six (6) interviews may be sufficient to enable development of meaningful themes and useful interpretation. A purposive sampling technique was employed to determine the institutions and directors who were part of the respondents. The researcher believes that the institutions and the directors who were selected to provide information for the study were in a better position to provide the information needed because of their levels of involvement and experience in social marketing communications on HIV/AIDS in Ghana.

4.4.2.6 Qualitative data administration methods

The following are some qualitative data administration methods available to researchers.

4.4.2.6.1 Focus Group Interviews

Krueger and Casey (2000) describe a focus group as not just a group of people convened but a special type of group in terms of purpose, size, composition, and procedure. The purpose of a focus group is to listen and gather information. Participants are selected because they have certain characteristics in common that relates to the topic of the focus group (Krueger and Casey, 2000). Malhotra (2007) defines focus group as an interview conducted by a trained moderator in a non-structured and natural manner with small group of respondents. The main purpose of focus groups is to gain insight by listening to a group of people from the target population talk about issues of interest to the researcher. Krueger and Casey (2000) assert that a typical focus group size is 5 to 10 people, but depending on the topic and other arrangements, it can be as many as 12 people. The moderator’s guide is carefully crafted to answer the research questions to assist the researcher in understanding the topic in detail.

Focus groups offer several advantages. Putting a group of people together will produce a wider range of information, insight, and ideas than will individual responses secure privately.

Usually, after a brief introduction period, the respondents want to express their ideas and expose their feelings as the general level of excitement over the topic increases in the group. Since a number of individuals are being interviewed at the same time, data collection and analysis proceed relatively faster. Ideas are more likely to rise out of the blue in a group than in an individual interview (Malhotra, 2007). However, focus groups are difficult to moderate. Moderators with all the desirable skills are rare. The quality of the results depends heavily on the skills of the moderator. The unstructured nature of the responses makes coding, analysis and interpretation difficult. Focus group data tend to be messy. Focus groups are not representative of the general population and are not projectable. Consequently, focus group results should not be the sole basis for decision-making (Malhotra, 2007).

4.4.2.6.2 In-depth Interviews

In-depth interviews are another method of obtaining qualitative data. Like focus groups, in-depth interviews are conducted on a one-on-one basis. An in-depth interview is an unstructured, direct, personal interview in which a single respondent is probed by a highly skilled interviewer to uncover underlying motivations, beliefs, attitudes, and feelings on a topic (Brench, 2002). McComack Brown (2005) describes in-depth interviews as interviews used to uncover feelings and attitudes an individual has regarding a specific experiences. While the interviewer attempts to follow a rough outline, the specific wording of the questions and the order in which they are asked is influenced by the subject's replies. Probing is of critical importance in obtaining meaningful responses and uncovering hidden issues (Malhotra, 2007). Seidman (1998) states that at the root of in-depth interviewing is an interest in understanding the experience of other people and the meaning they make of that experience. In conducting in-depth interviews, open-ended questions are asked, ranging from broad and general ones to highly specific ones (McComack Brown, 2005). The best time to

use in-depth interviews is when the topic is complex, the respondents are knowledgeable, and understanding of individual experience is needed (McComack Brown, 2005).

In-depth interviews can uncover greater depth of insights than focus groups. Also, in-depth interviews attribute the response directly to the respondent, unlike focus groups, where it is often difficult to determine which respondent made a particular response. In-depth interview results in free exchange of information that may not be possible in focus groups because there is no social pressure to conform to group response. However, if in-depth interview is not well managed, it may suffer from many of the disadvantages of focus groups. Skilled interviewers capable of conducting in-depth interviews are expensive and difficult to find. The lack of structure makes the results susceptible to the interviewer's influence, and the quality and completeness of the results depend heavily on the interviewer's skills. The data collected are difficult to analyse and interpret. The length of the interview combined with high cost means that number of in-depth interviews in a project will be small (Malhotra, 2007).

4.4.2.6.3 Observation Techniques

Observation involves recording the behavioural pattern of people, objects, and events in a systematic manner to obtain information about the phenomenon of interest (Malhotra, 2007). The observer does not question or communicate with the people being observed. Observation requires a subject to observe. Due to weak memories, researchers depend on recording devices such as video tapes, audiotapes, handwritten notes, or some other tangible record of what is observed. Observation could be direct versus indirect, structured versus unstructured and human versus mechanical (Malhotra, 2007). It may be conducted in a natural or contrived environment (Milat, et al., 2002). The Greatest advantage of observation is that the subjects being observed by the researcher are unaware that they are being studied, so they react in a natural manner, giving the researchers insight to natural, not reported behaviours.

Observation research method therefore reduces reporting bias and bias caused by the interviewer and the interviewing process (Malhotra, 2007). Certain types of data can be collected only by observation and may include behaviour patterns that the respondent is unaware of or unable to communicate (Malhotra, 2007). There are instances when participant observation is not appropriate (Bryant, 2003). An example in health promotion would be condom usage between partners. In this situation the observer's presence would be an intrusion. Another limitation of observation is that the reasons for the observed behaviour may not be determined because little is known about the underlying motives, beliefs, attitudes, and preferences. Finally, in some cases, the use of observation methods may be unethical, as in monitoring the behaviour of people without their knowledge or consent (Malhotra, 2007).

This research began with an in-depth interview of two (2) directors each from Ghana Social Marketing Foundation, Ghana AIDS Commission and National AIDS Control Programme for exploratory purposes. The in-depth interviews took place in the offices of the directors and lasted for about 50 minutes each, except the interview with officials from Ghana AIDS Commission that lasted for 1 hour, 13 minutes, because two directors decided to do the interview together. The respondents were provided with adequate information about the purpose of the research and confidentiality at the start of the interview. To avoid covert research method, audio recording of the interviews were made known to the respondents. The in-depth interview method helped to uncover greater depth of insights into the activities of these organizations. Based on the objectives, hypotheses and in-depth interviews conducted, questionnaire was designed for subsequent cross sectional survey (see questionnaire in appendix 1) to elicit information from residents in Lower Manya (Agormanya) and Fanteakwa districts in the Eastern Region of Ghana.

4.4.2.7 Qualitative Data Analysis

In analysing a qualitative data, the researcher has the option of choosing from many qualitative analysis techniques. They include thematic, narrative, discourse, content, and grounded theory analysis. This section discusses the basic concepts of these techniques.

4.4.2.7.1 Thematic Analysis

Thematic analysis is a process of segmentation, categorisation and re-linking of aspects of the data prior to final interpretation (Grbich, 2007). Matthews and Ross (2010) assert that thematic analysis is the most common of the qualitative data analysis techniques. They further indicate that thematic analysis enables the researcher to identify the main themes or issues within the data and to use the data to refine the themes, look for links within the data, identify typologies and look for similarities and differences within and between cases. Braun and Clark (2006) have proposed six-step approach to thematic analysis. They are, data familiarisation, initial coding generation, searching for themes based on the initial coding, review of themes, theme definition and labelling and report writing.

4.4.2.7.2 Narrative Analysis

Narrative analysis may be used as a means to explore linkages, relationships and socially constructed explanations that naturally occur within narrative accounts, where fragmentation of these into categories and themes would therefore be rendered unnecessary (Saunders, et al., 2009). The structural elements that are present in narratives may also help the researcher to analyse each narrative account and perhaps, to compare the course of events in different narratives where there is likely to be some analytical benefit in comparing these (Saunders, et al., 2009). Gabriel and Griffiths (2004) point out that stories and storytelling have become more frequently used in recent years in organisational research. Stories have been defined as

narrative which have both plots and characters and generate emotion in the story teller and their audience using elaboration and poetic licence (Gabriel, 2000).

4.4.2.7.3 Discourse Analysis

Discourse analysis is often used when working with language and with linguistics and is popular in many social sciences, including psychology, and political science (Matthew and Ross, 2010). When a discourse or account is analysed, the researcher may be looking at what type of language is being used, what sort of idea underlie the text and how those ideas are demonstrated in the language (Ross, 2010). Gee (2005) explains discourse analysis further and states that “in the end, discourse analysis is one way to engage in a very important human task. The task: is to think more deeply about the meanings we give people’s words so as to make ourselves better, more humane people and the world a better, more humane place.” This quotation points out clear that discourse analysis is a language-based or linguistic method of qualitative analysis.

4.4.2.7.4 Content Analysis

Content analysis is a technique for making inferences by objectively and systematically identifying specified characteristics of messages (Holsti, 1969). Under this definition, the technique of content analysis is not restricted to the domain of textual analysis, but may be applied to other areas such as coding student drawings (Wheelock, et al., 2000), or coding of actions observed in videotaped studies (Stigler, et al., 1999). Essentially, it is a technique for examining categories that the data comprise and condensing them into fewer categories so that they are easier to understand (Matthews and Ross, 2010). Due to its flexibility, it is used in many disciplines within the social sciences. However,

historically, at least, its home has been in media studies and associated areas (Matthews and Ross, 2010).

4.4.2.7.5 Grounded Theory Analysis

With grounded theory strategy, specific analysis procedures are used to build an explanation or to generate a theory around the core or central theme that emerges from the data (Saunders, et al., 2009). Matthews and Ross (2010) conclude that the most common methods used in grounded theory are such things as interviews and observation. They further explain that at the end of each data collection, the 'results' are recorded and immediately used as part of the constant comparison which, along with coding, is central to the analytical process. Strauss and Corbin (2008) assert that in grounded theory, the disaggregation of data into units is called open coding, the process of recognising relationships between categories is referred to as axial coding, and the integration of categories to produce a theory is labelled selective coding.

The qualitative data analytic procedures is reported in a connected narrative approach (Misler, 1990), and all interviews were transcribed and analysed using thematic analyses technique (Braun and Clark, 2006). The analyses of qualitative data follows (Braun and Clark , 2006) approach to data familiarisation, initial coding generation, searching for themes based on the initial coding, review of themes, theme definition and labelling, and report writing. The researcher adopts thematic analysis because it is widely-used in health education and promotion (Matthews and Ross, 2010), it offers an accessible and theoretically-flexible approach to analysing qualitative data and allows researchers to identify and analyse the main themes of data collected (Braun and Clark, 2006)

4.4.3 Quantitative Research Design

Quantitative research is a means of testing objective theories by examining the relationship among variables. These variables, in turn, can be measured, typically on instruments, so that numbered data can be analysed using statistical procedures. The final written report has a structure consisting of introduction, literature and theory, methods, results and discussion (Creswell, 2008). Unlike qualitative research, those who engage in this form of inquiry have assumptions about testing theories deductively, building in protection against bias, controlling for alternative explanations and being able to generalise and replicate the findings (Creswell, 2008). Marketing researchers who engage in quantitative research are likely to use one of the following methods:-

4.4.3.1 Survey Research

This research strategy provides a quantitative or numeric description of trends, attitudes, or opinion of a population by studying a sample of that population. It includes cross-sectional and longitudinal studies using questionnaire or structured interviews for data collection, with the intent of generalising from the sample to a population (Creswell, 2009). Cottrell and McKenzie (2007) posit that a survey research involves the administration of a questionnaire to a sample or to an entire population of people in order to describe the attitudes, opinions, beliefs, values, behaviours, or characteristics of the group being studied. A questionnaire is a form or instrument used in survey research that contains questions that participants are asked to answer (McKenzie, 2007). Comparing subgroups is a common feature of survey research. For instance, one may want to determine if male and female, older and younger, or urban and rural respondents differ in the way they answer questions (Gay and Airasian, 2003). Survey research designs are among those designs most frequently seen in health education literature (Neutens and Robinson, 2002; O' Rourke, 1999).

In survey method, a questionnaire is simple to administer and the data obtained are reliable because responses are limited to the alternative stated. The use of fixed-response questions reduces the variability in the results that may be caused by differences in interviewers. Finally, coding, analysis, and interpretation of data are relatively simple (Malhotra and McCort, 2001). Survey research, however, has the following weaknesses:

- (i) By designing questions that will be, at least, minimally appropriate to all respondents, the researcher may miss what is most appropriate to many respondents. In this sense, surveys often appear superficial in their coverage of complex topics.
- (ii) Although questionnaires can provide information in this area, the survey researcher rarely develops the feel for total life situation in which respondents are thinking and acting that, say, the participant observer can (Babbie, 2007).

In many ways surveys are inflexible, cannot measure social action; they can only collect self-report of recall past action or of prospective or hypothetical action (Babbie, 2007). In designing a questionnaire, one needs to understand levels of measurements namely, nominal, ordinal, interval and ratio scale.

Dillon et al., (1994) assert that nominal scales refer to the lowest level of measurement and the most limited scope for mathematical manoeuvre. Burns and Bush (2010) contend that ordinal scales permit the researcher to rank-order the respondents or their responses. For instance, if respondents are asked to indicate their first, second, third, and fourth choices of brands, the results would be ordinally scaled. They further contend that, ordinary scales possess description and order but do not indicate how far apart the descriptors are on the scale because they do not possess distance or origin (Burns and Bush, 2010).

Ratio scales are one in which a true zero origin exists - such as an actual number of purchases in a certain time period, pound spent, mile travelled, number of children in the household, or years of college education. This characteristic allows the researcher to construct ratios when comparing results of the measurement. One person may spend twice as much more as another or travel one-third as far. Such ratios are inappropriate for interval scales, so it is not allowed to say that one store was one-half as friendly as another (Burns and Bush, 2010).

The interval scales are scales in which numbers are used to rate objects such that numerically equal distances on the scale represent equal distances in the characteristic being measured (Malhotra, 2007). Malhotra further states that an interval scale contains information of an ordinal scale and it also allows the researcher to compare the difference between objects. The difference between any two adjacent scales, values therefore, is identical to the difference between any other two adjacent values of interval scale (Malhotra, 2007). Burns and Bush (2010) posit that if a respondent was asked to evaluate a store attendance from a list of “extremely friendly”, “very friendly,” “somewhat friendly,” “somewhat unfriendly,” “very unfriendly,” or “extremely unfriendly,” the researcher would probably assume that each designation was one unit away from the preceding one. In this case, it is said that the scale has “assumed interval.” Interval scales are more widely used in marketing research and form the basic components of more complex scales, such as multi-item rating scales (Malhotra, 2007). This section describes the commonly used interval scales, the Likert scales, semantic differential, and staple scales (Malhotra, 2007).

Likert Scale is a widely used rating scale that requires the respondents to indicate a degree of agreement or disagreement with each of a series of statements about the stimulus objects (Bortholomew, 2006; Amoo and Friedman, 2000; Albaum, 1997; Liker, 1932). Typically, each scale item has five to ten response categories, ranging from “strongly disagree” to

“strongly agree.” It is easy to construct and to administer. Respondents readily understand how to use the scale, making it suitable for mail, telephone, or personal interviews. The major limitation of the Likert scale is that it takes longer to complete than other questionnaires because respondents have to read each statement (Malhotra, 2007).

The semantic differential scale is a 7-point rating scale with endpoints associated with bipolar labels that have semantic meaning. In a typical application, respondents rate objects on a number of itemised, 7-point rating scales bounded at each end by one of two bipolar adjectives, such as “cold” and “warm”(Sethi, et al., 2001; Chandler and Spies, 1996). In designing semantic differential scale questions, the negative adjectives or phrase sometimes appears at the left side of the scale and sometimes, at the right. This controls the tendency of some respondents, particularly those with very positive or very negative attitudes, to mark the right- or left-hand sides without reading the labels (Malhotra, 2007). The versatility of semantic differential scale makes it a popular rating scale in marketing research. It has been widely used in comparing brand, product and company images. It has also been used to develop advertising and promotion strategies and in new product development studies (Ofir and Simonson, 2001; Reisenwitz and Wimbish, 1996). This research adopts the following methods for the study:

4.4.3.2 Questionnaire Design and Administration

For the purpose of this study, a questionnaire was designed using nominal and interval measurement scales. The Likert-style, five- point rating scale was used to measure the degree of agreement of 1 for strongly agree (or strongly disagree) to 5 for strongly disagree (or strongly agree) depending on the variable being measured. The questionnaire was pretested in a pilot study involving eight respondents at Lower Manya (Agormanya) and Fanteakwa districts in Ghana which led to the modification of the questionnaire to reflect the concerns of

pre-test respondents. The questionnaire contains 34 questions which are grouped into three sections respectively as follows: section one covers socio-demographic profile of respondents, section two covers respondents' knowledge and impact of social marketing interventions on HIV/AIDS, and section three covers perceived norm, attitude, response efficacy, intention, behavioural performance and factors that could prevent respondents from adopting social marketing recommendations on HIV/AIDS in Ghana.

4.4.3.3 Sampling Design

This section discusses the sampling design that could be used by a market researcher for a study. It specifically talks about the target population, sampling frame, sampling technique, sample size, and sample size determination.

The objective of most research projects is to obtain information about the characteristics or parameters of a population (Burns and Bush, 2010). They define population as the aggregate of all the elements that share some common set of characteristics and that compromise the universe for the purpose of the research problem. Occasionally, it may be possible to collect data from every members of the population or conduct a census (Saunders, et al., 2009). They, however, state that for many research questions and objectives, it will be impossible to collect all the available data owing to restrictions of time, money and often access. In this case, a sample of the population is used (Saunders, et al., 2009). Bradley (2007) defines a sample as a process of taking parts from a defined population in order to examine these parts, usually with the aim of making judgements about the parts of the population that have not been investigated. The following are some arguments in favour of the use of sample versus a census. Budget and time limits are obvious constraints favouring the use of sample. A census is both costly and time consuming to conduct. A census is unrealistic if the population is large (Malhotra, 2007).

4.4.3.3.1 Target Population

Target population is the collection of elements or objects that possess the information sought by the researcher and about which inferences are to be made (Burns and Bush, 2010). Burns and Bush further assert that the target population must be designed precisely because imprecise definition of the target population will result in research that is ineffective at best and misleading at worst. Defining the target population involves translating the problem definition into a precise statement of who should or should not be included in the sample (Burns and Bush, 2010).

4.4.3.3.2 Sampling Frame

A sampling frame is the representations of the element of the population. It consists of a list or set of directions for identifying the target population (Malhotra, 2007). Often it is possible to compile or obtain a list of population elements but the list may omit some elements of the population or include other elements that do not belong (Malhotra, 2007). The use of such list according to (Mick, 2000) may lead to sampling frame error. Mick (2000) further posits that it is important for the researcher to recognise and treat the sampling frame error. Malhotra (2007) believes this can be done in at least three ways. One approach is to redefine the population in terms of the sampling frame. The second is to account for sampling frame error by screening the respondents in the data-collection phase. The respondents according to Malhotra could be screened with respect to demographic characteristics, familiarity, and other characteristics to ensure that they satisfy the criteria for the target population. Finally, the researcher can adjust the data collected by weighting scheme to counter-balance the sampling frame error (Malhotra 2007). Although these approaches seem simplistic, they do prevent the researcher from being misled about the actual population being investigated (Gregory, 2002).

4.4.3.3.3 Sampling Technique

There are two types of sampling techniques namely probability and non-probability sampling. The probability sampling technique involves the selection of a “random sample” from a list containing the names of every one of the population being sampled ((Babbie, 2007). Babbie (2007) contends that probability sampling remains the primary method of selecting large, representative samples for social research, including national political polls

The following are the types of probability sampling that could be utilised by a quantitative researcher.

4.4.3.3.3.1 Simple Random Sampling

In simple random sampling, each element in the population has a known and equal probability of selection (Mahotra, 2007). That is to say, each possible sample of a given size (n) has a known and equal probability of being the sample actually selected. In selecting a sample through simple random sampling technique, the sample is drawn by a random procedure from a sampling frame (Mahotra, 2007). The sample selected can be said to be representative of the whole population (Saunders, et al., 2009). However, simple random sample suffers from at least four significant limitations (Malhotra, 2007). First, it is often difficult to construct a sampling frame that will permit a simple random sample to be drawn. Second, simple random sample can result in samples that are very large or spread over large geographical areas, thus increasing the time and cost of data collection. Third, simple random sample often results in lower precision with larger standard errors than other probability sampling techniques. Finally, simple random sample may or may not result in a representative sample. Although sample drawn will represent the population well on average, a given random sample may grossly misrepresent the target population (Mahotra, 2007).

4.4.3.3.2 Systematic Sampling

Systematic sampling involves selecting the sample at regular intervals from sampling frame (Saunders, et al., 2009). The sample is chosen by selecting a random starting point and then picking every k th element in succession from the sampling frame (Burns and Bush, 2010). The k th element is determined by dividing the sample size into the population size to obtain the skip pattern applied to the sampling frame (Blumberg, et al., 2008). Systematic sampling is similar to simple random sample because each population element has known and equally chance of selection. It, however, differs from simple random sample because only the permissible samples that can be drawn and have a known and equal probability of selection is considered (Burns and Bush, 2010). The major advantage of systematic sampling is its simplicity and flexibility. It is easier to choose the dwelling units listed on every k th line of a listing sheet than it is to use a simple random table (Blumberg, et al., 2008). The danger with systematic sampling lies in the listing of the population (Burns and Bush, 2010). They explain that sample frame error is a major concern with telephone directories because of unlisted numbers and lists that are not current.

4.4.3.3.3 Stratified Sampling

This is a two step process in which the population is partitioned into sub-populations, or strata. The population is first divided into mutually exclusive and exhaustive strata then a simple random sample of elements is chosen independently from each stratum (Iacobucci and Churchill, 2010). The variables used to partition the population into strata are referred to as stratification variables. The criteria for the selection of these variables consist of homogeneity, heterogeneity, relatedness, and cost. The elements within the stratum should be as homogeneous as possible, but the elements in different strata should be as heterogeneous as possible. The stratification variables should also be closely related with the characteristic

of interest (Malhotra, 2007). A major objective of stratified sampling is to increase precision without increasing cost (Gunnar, 2000). Stratified sampling ensures the proper representation of the stratification variables; this in turn, enhances the representation of other variables related to them (Babbie, 2007). Although the simple random sample is still regarded as somewhat sacred, it should be clear that researchers can often do better with the stratified sampling method (Babbie, 2007). Malhotra (2007) has however, identified the following as the drawbacks of stratified sampling technique- It is difficult to select relevant stratification variables, not feasible to stratify on many variables and it can be expensive.

4.4.3.3.4 Cluster Sampling

This is probability sampling technique in which the population is divided into subgroups, called clusters, each of which could represent the entire population (Burns and Bush, 2010). The basic concept behind cluster is very similar to the one behind systematic sampling, but the implementation differs (Malhotra, 2007). A common form of cluster sampling is area sampling, in which the clusters consist of geographic areas, such as region, districts, or towns. If only one level sampling takes place in selecting the basic elements, the design is called single-stage area sampling. If one or two levels of sampling takes place before the basic elements are selected, the design is called two (multi)-stage area sampling (Malhotra, 2007). Cluster sampling is easy to administer and it goes a step further in striving to gain economic efficiency over systematic sampling by simplifying the sampling procedure used (Stubbs, 2005). Another advantage of cluster sampling is feasibility- in many situations the only sampling frames readily available for the target population are cluster, not population elements. It is often not feasible to compile a list of all consumers in a population, given the resources and constraint (Malhotra, 2007). However, cluster sampling results in relatively

imprecise samples and it is difficult to form heterogeneous clusters because, for example, households in a block tend to be similar rather than dissimilar (Poduri, 2001).

4.4.3.3.4. Sample Size Determination

The preferred method of determining sample size is the confidence interval approach, which applies the concept of accuracy (sample error), variability and confidence interval to create a “correct” sample size (Burns & Bush, 2010). The confidence interval approach to sample size determination is based on the construction of confidence intervals around the sample mean or proportion using the standard error formula (Malhotra, 2007). The confidence interval approach allows the researcher to predict what would be found if a survey were replicated many, many times (Malhotra, 2007). Even though, it has been indicated in earlier discussions that the best method of determining a sample size is by the use of confidence interval approach, Bradley (2007) argues that many sample sizes for research studies are decided by researchers on what is feasible within time or money available. Sangren (2000) argues that where data collection costs are significant, such as with personal interview, cost and value issues come into play vividly with sample size determination. The researcher will now discuss other methods of sample size determination including, arbitrary and cost basis sample size specification.

The arbitrary approach may take on the guise of a “per cent rule of thumb” statement regarding sample size: “A sample should be at least 5% of the population in order to be accurate.” It should be noted that the arbitrary approach certainly has some intuitive appeal in that it is very easy to remember and it is simple to apply (Burns and Bush, 2010). They are, however, neither efficient nor economical. They also lose sight of the accuracy aspect of sampling; they certainly violate some of the axioms about sample size (Burns and Bush, 2010). The cost basis of sample size specification, sometimes termed the “all you can afford”

approach, can be the over-riding basis for sample size (Burns and Bush, 2010; Bradley, 2007). As has been discussed earlier in the thesis, researchers are vitally concerned with the costs of data collection. Even though this might not be the best approach to research sometimes, the researcher is constrained by resource availability to use other methods like confidence interval approach (Burns and Bush, 2010).

4.4.3.3.5 Population and Sampling for the Study

The population for the quantitative research constitutes all residents of two HIV sentinel sites in Ghana and the sample frame on the residents was obtained from Ghana Statistical Service. The residents of these sites are selected for the study because they have the highest HIV prevalence in the country (NACP, 2008 and 2009). The two sentinel sites are Lower Manya/Agormanya (5.8%), Fanteakwa (4.0%) all in the Eastern Region of Ghana. HIV sentinel survey report, 2009 shows Fanteakwa and Agormanya as the sites with the highest HIV prevalence. The research focuses mainly on residents at Lower Manya and Fanteakwa districts who fall within 18 and 49 age group because they are the most affected age group with HIV/AIDS epidemic in Ghana (NACP, 2009).

A sample size of six hundred (600) respondents aged between 18 and 49 years old were selected from Lower Manya and Fanteakwa districts for the survey. The selection of the sample size for the survey is based on the cost basis approach since there was limited external funding for this research. In this case, size of a sample depends on the acceptable sample error balanced against the cost for that sample size. It is always important to note that the cost of research should not exceed the value of the information expected from the research (Burns, and Bush, 2010). If the researcher decided to increase the sample size to 800 respondents for instance, the additional cost might have exceeded the additional information expected. The

sample error at 95% confidence level for 600 and 800 will give statistical accuracy of +/- 4.0% and +/-3.5% respectively.

The respondents were selected by the use of stratified sampling technique to increase precision without increasing cost, and to ensure that each population element was represented. The research followed a three step process by partitioning the population into sub-populations, or strata (districts, location, and gender) and using simple random sampling technique to select the respondents from each stratum. Specifically, the sample was first stratified into two districts (Lower Manya (45.1%) and Fanteakwa (54.9% districts). Second, each district was stratified into urban (70%) and rural (30%) respondents and finally, into male (48%) and female (52%) respondents. This was to ensure that each of the groups based on their population were rightly represented in the study.

The following section discusses basic concepts of analytical tools available to market researchers.

4.4.3.3.6 Methods used for Collecting Survey Data

After the questionnaire design, one or a combination of the following methods could be employed to collect data from respondents.

Mail Questionnaire: Mail questionnaire are an excellent way to access populations that are distributed over wide geographic areas (Cottrell and McKenzie, 2005). Mail survey is fairly inexpensive when compared with the manpower requirement of personal interviews, they are completed at the convenience of the respondent and most respondents feel more anonymous when completing them. Some disadvantages are low response rate, self-selection bias, which means that those who do not respond are probably different from those who do not fill out

and return. Therefore, the sample collected through this method may be non representative of the general population (Burns and Bush, 2010). The major disadvantage of mail survey is that it cannot be administered in the areas where postal facilities are not available. Experience shows that mail survey in Ghana for instance, might not work because postal facilities are not reliable nor widely available. **Group Administration:** Group administered survey entails administering a questionnaire to respondents in groups, rather than individually for convenience and to gain economies of scale. In this case, all respondents would be grouped in one place and then, they will be given a questionnaire to fill out. As indicated, the survey is handled in group context primarily to reduce costs and to provide the opportunity to interview a large number of respondents in a short time (Malhotra, 2007). **Electronic Questionnaire:** An electronic questionnaire or email questionnaire is a survey instrument for collecting data that is available on the computer (Creswell, 2002). With increased use of internet and email, it is natural extension to consider sending survey questionnaires by means of this technology. Essentially, an email is sent to a prospective participant with either an attachment or a website address to locate and download a questionnaire.

Personal Interview: This type of interview is essentially the oral, in-person (face-to-face) administration of a questionnaire to each member of the sample (Gay and Airasian, 2003). There are, at least, three variations of person-administered interviews commonly used in marketing research. These methods include the in-home interview, the mall-intercept interview, and the in-office interview (Burns and Bush, 2010). When compared to a mailed questionnaire, personal interviews are more expensive and time consuming. On the other hand, personal interviews have some distinct advantages over mailed and other survey methods that may make them the method of choice in some situations (Cottrell, and McKenzie, 2005). Personal interviews generally reduce incomplete questionnaire, thus

reducing no response error. **Telephone Interview:** Telephone survey is actually a personal interview that takes place over the telephone. Telephone surveys are very popular and the techniques involved in conducting telephone interviews have been refined and improved overtime. With the proper equipment and trained interviewers, telephone interviews are the fastest means of collecting data when compared to mailed questionnaires or personal interviews. They can cover broad geographic areas and cost 50-80% less than face-to-face interviews (Neutens and Robinson, 2002).

This research adopted personal interview method to collect the primary data. Specifically, questionnaires were administered face-to-face to respondents in Lower Manya and Fanteakwa districts in the Eastern Region of Ghana. In all, 600 respondents were contacted but 494 representing 82.3% cooperated. Of this, 13 questionnaires were rejected as incomplete, resulting in completion of 481 questionnaires, representing 80.2% for the study. This method is considered to be the most effective method to elicit favourable responses due to low level of education and unreliable postal and telecommunication systems commonly found in a rural Sub-Saharan African economy like Ghana. Even though it was more challenging and expensive to use this method, the facilities available and educational level at Lower Manya and Fanteakwa districts were not conducive to the adoption of other methods like mail, telephone, and electronic/computer assisted interviews.

4.4.3.3.7 Quantitative Data Analysis Techniques

Data analysis process includes editing, coding and data entry to ensure the accuracy of the data and their conversion from raw form to reduced and classified forms that are more appropriate for analysis (Blumberg, et al., 2008). After the data have been collected and prepared, one of the most difficult parts of the research process is selecting the right statistical technique to analyse the data obtained (Malhotra, 2004). Burns and Bush (2010) have

categorised statistical analyses into descriptive, inferential, differences, associative and predictive analysis and explain them as follows:

First, descriptive analysis is used by researchers to describe the sample data matrix in such a way as to portray the “typical” respondent and to reveal the general pattern of responses. Descriptive Analysis includes mean, mode, standard deviation, range and frequency distributions. Descriptive measures are typically used early in the analysis process and become foundation for subsequent analysis (Vondruska, 1995). Second, when statistical procedures are used by researchers to generalise the results of the sample to the target population that it represents, the process is referred to as inferential analysis. Inferential statistics include hypothesis testing and estimating true population values based on sample information (Burns and Bush, 2010). Third, differences analysis is use to determine the degree to which real and generalisable differences exist in the population in order to help the researcher make an enlightened decision. They include *t* test for significant differences between groups and analysis of variance (ANOVA). Fourth, associate analysis investigates if and how two variables are related. Depending on the statistics used, the analysis may indicate the strength of the association and/or the direction of the association between two questions on a questionnaire in a given study. Associate analysis includes cross-tabulation and correlation. Finally, Predictive analyses are statistical procedures and models available to help make forecasts about future events and include regression and multiple regression analysis (Burns and Bush, 2010). The next sections discuss the basic concepts of some analytical tools available for a quantitative researcher.

4.4.3.3.7.1 Cross-Tabulation

Cross-tabulation, better known as “cross-tab” is the most widely used data analysis technique in marketing research (Icobucci and Churchill, 2010). Cross-tab is a technique for comparing

two classification variables, such as gender. The technique uses tables with rows and columns that correspond to the levels or values of each variable's categories (Blumberg, et al., 2008). The variables for cross-tabs are either naturally nominal or ordinal, or they represent categorisations of continuous measures. Cross-tabs are sometimes called "contingency tables" because researchers look at how one variable behaves contingent upon values of the other variable (Icobucci and Churchill, 2010). Cross-tabs and the associate chi-square are used to assess if a nonmonotonic relationship exist between two nominal-scaled variables. Nonmonotonic relationships are those in which the presence of one nominal-scaled variable coincides with presence of another nominal-scaled variable (Burns and Bush, 2010).

The chi-square analysis is the examination of the frequencies of two nominal-scaled variables in a cross-tabulation table to determine whether the variables have a nonmonotonic relationship (Hellebusch, 2001). The formal procedure for chi-square analysis begins when researchers formulate a statistical null hypothesis that two variables under investigation are not associated in the population. In other words, whenever the researcher uses cross-tab with associate chi-square, he/she always begins with the assumption that no association exists between the two nominal-scaled variables under analysis (Burns and Bush, 2010). Chi-square is useful in cases of one-sample analysis, two independent samples, or k independent samples. It must be calculated with actual counts rather than percentages. In the one-sample case, researcher establishes a null hypothesis based on the expected frequency of objects in each category. Then, the deviations of the actual frequencies in each category are compared with the hypothesized frequencies. The greater the overall difference, the larger the value of Chi-square and the more confident we can be that there is a real association between them (Blumber, et al., 2008).

In chi-square analysis when the significant value (p) is less than 0.05, it can be said that the two variables are statistically significant. That is, one can at least be 95% certain that there is association between the variables in question (Burns and Bush, 2010). The phi coefficient is used to measure the strength of association, and when the phi value is between 0 to 0.29, 0.30 to 0.49, and 0.5 and more there is weak, moderate and strong association between the variables respectively (Malhotra, 2007). The adjusted residual helps to identify the form that the association takes and is particularly useful in large tables. Positive adjusted residual (r) greater than 2 signifies positive relationship and negative r smaller than -2 signifies negative relationship between the two categories (Malhotra, 2007).

4.4.3.3.7.2 The Use of a t or z -Test

Computation of the z value makes the assumption that the raw data for most statistics under scrutiny have normal or bell-shaped, distribution. However, statisticians have shown that this normal curve property does not hold when the sample size is 30 observations or less (Ozgun and Strasser, 2004). The t -test is the statistical inferences test to be used when the sample size is equal to or greater than 30 respondents and when the researcher wants to compare the mean score of two groups (e.g. males and females) or two sets of data (before and after) (Pallant, 2010). Instead of relying on a constant normal distribution, the t -test relies on student's t distribution. The t distribution's shape is determined by the number of degrees of freedom, defined as the sample size minus the number of population parameters estimated, because the population parameter is the difference between the two populations (Burns and Bush, 2010). They conclude that the smaller the number of degrees of freedom, the more spread out the curve. In t -test analysis, if sig. (2 tailed) is smaller than 0.05 ($p < 0.05$) the difference between the two variables is statistically significant. However, if sig. for test for equality of variance is equal to or less than 0.05 ($p = 0.05$ or $p < 0.05$), the Lave's test indicates that equal variance

between the two population is not equal. If sig. greater than 0.05 ($p>0.05$), the Levene's test indicates that equal variance can be assumed (Pallant, 2010).

4.4.3.3.7.3 Analysis of Variance (ANOVA)

The previous section discusses how t-test is used to compare the mean score of two different groups or conditions. In many research situations, however, the researcher is interested in comparing the mean scores of more than two groups. In this situation, analysis of variance (ANOVA) is used (Icobucci and Churchill, 2010). One-way analysis of variance involves one independent variable which has a number of different levels and these levels correspond to the different groups or conditions. Analysis of variance compares the variance between the different groups with the variability within each of the groups (Pallant, 2010). An F ratio is calculated, which represents the variance between the groups divided by the variance within the groups. A large F ratio indicates that there is more variability between the groups than within the groups (Pallant, 2010). ANOVA is a flagging technique that tests all possible pairs of means for all the groups involved and indicate via significance value in the ANOVA table if at least one pair is statistically significant ($P<0.05$) in its difference (Burns and Bush, 2010). If the sign value is greater than 0.05, the researcher will waste time inspecting the mean for difference. But if the sign value is 0.05 or less, then the differences between the different categories of the respondents are significant. In this case, the researcher can use post hoc procedures such as Duncan's multiple range test to identify the pair or pairs of groups where the mean are significantly different (Garee, 1997). To know how different groups differ, the mean of each group is used and the group mean helps the researcher to know on average the views of all groups.

ANOVA is very efficient because it makes these comparisons simultaneously. ANOVA's null hypothesis is that no single pair of means is significantly different. ANOVA uses f test

statistics and significance level (p value) because multiple pairs of group mean are being tested (Burns and Bush, 2010). Blumber, et al., (2008) posit that to use ANOVA to analyse data, the following conditions must be met: The samples must be randomly selected from normal populations, and the populations should have equal variances. In addition, the distance from one value to its group's mean should be independent of the distances of other values to that mean (independence of error). ANOVA is reasonably robust and minor variations from normality and equal variance are tolerable (Blumber, et al., 2008).

4.4.3.3.7.4 Correlation

The correlation coefficient is a statistic that provides a measure of the strength and direction of the relationship. The correlation is based on the fit of a straight line to the data and the difference of each value from the mean of the set of values (Matthews and Ross, 2010). They further assert that the researcher can use it to look for possible reasons that the variables may or may not be related but a correlation coefficient does not, by itself, demonstrate that there is an actual relationship. Various objectives are served with correlation analysis. The strength, direction, shape and other features of the relationship may be discovered. Or tactical and strategic questions may be answered by predicting the values of one variable from those of another. With correlation, one calculates an index to measure the nature of the relationship between variables (Blumberg, et al., 2008).

Correlation analysis differs from measures of association and regression analysis in two important ways. First, correlation requires two continuous variables measured on an interval or ratio scale. Second, the coefficient does not distinguish between independent and dependent variables. It treats the variables symmetrically since the coefficient r_{xy} has the same interpretation as r_{yx} (Blumber, et al., (2008). A correlation coefficient is an index number, constrained to fall between the range of +1.0 to -1.0 that communicates both the

strength and direction of association between variables. The sign of the correlation coefficient indicates the direction of the relationship and the absolute size indicates the strength of the association (Burns and Bush, 2010). Direction tells the researcher whether large values on one variable are associated with large values on the other (and small values with small values). When the values correspond in this way, the two variables have a positive relationship: As one increases, the other also increases (Blumberg, et al., 2008). A perfect correlation of 1 or -1 indicates that the value of one variable can be determined exactly by knowing the value on the other variable. A scatter-plot of this would show a straight line. On the other hand, a correlation of 0 indicates no relationship between the two variables. Knowing the value on one of the variables provides no assistance in predicting the value on the second variable. A scatter-plot would show a circle of points, with no direction (Pallant, 2010). Normally, if correlation coefficient (r) falls within 0 to ± 0.60 , ± 0.61 to ± 0.80 , and ± 0.81 to ± 1 it is considered to have small, medium and high effect respectively assuming the correlation coefficient is statistically significant. With two questions that are interval and/or ratio in their scaling assumptions, the Pearson product moment correlation coefficient is appropriate as the means of determining the underlying linear relationship (Burns and Bush, 2010).

4.4.3.3.8 Statistical Analysis Techniques Employed for the Study

Descriptive statistics such as mean, standard deviation (SD) and frequency distribution tables were used to describe the sample data matrix in such a way as to portray the ‘typical’ respondent, and to reveal the general pattern of responses (Burns and Bush, 2010). To extract the significance of the results, further analyses was carried out using cross-tabulation to determine if there is a non-monotonic relationship between two nominal variables and chi-square is used to determine whether or not there is a statistically significant association

between two nominal variables. Further, a t-test was used to examine whether the means of two groups of data are significantly different from each other. The analysis of variance (ANOVA) as an extension of t-test is used to test the significant difference of means between more than two groups. Finally, correlation coefficient is employed to measure the strength of the relationship between two variables that will give an indication of both direction (positive or negative) and strength of the relationships (Pallant, 2010).

4.5 Summary

Although philosophical ideas remain largely hidden in research, they still influence the practice of research and need to be identified. There are four philosophical worldviews that guide research namely postpositive, social construction, advocacy/participatory and pragmatic paradigms. Eastery-Smith et al., (2002) argue that all the research paradigms consist of three elements that the researcher must consider. These include ontology, epistemology and methodology. Research design whether qualitative, or quantitative in nature, often depends on the epistemological stance of the researcher.

Quantitative research is a means of testing objective theories by examining the relationship among variables. When conducting a quantitative research, the researcher is likely to adopt experimental or survey research. In survey research, the researcher has the option to use nominal, ordinal, interval or ratio scales to design questionnaire to collect primary data from respondents. After questionnaire pretesting, the quantitative data could be collected from respondents through, mail interview, group interview, electronic interview, personal interview, telephone interview or a combination of any of them. Sometimes, it becomes difficult to collect data from the entire population, and therefore, a sampling method of either simple random, systematic, stratified, or cluster sampling technique is employed to select

accurate sample size. After completion of data collection, the data needs to be analysed. This will allow the researcher to describe the data set and make conclusions about the population. There are a number of quantitative data analysis techniques including hypothesis testing, t or z test, cross-tabulation, analysis of variance (ANOVA), correlation, linear regression and multiple regression that can be employed in a given situation.

Qualitative researchers, however, use different approaches to collect and analyse data, and depending on the objective of the research, may conduct a biography, case study, ethnography, grounded theory or phenomenology research. Data can be collected from respondents through observation techniques, focus group interviews, or in-depth interviews. Sampling selection could be based on convenience, purposive, snow ball or through quota sampling. In analysing a qualitative data, the researcher has the option of choosing from many qualitative analysis techniques. They include thematic, narrative, discourse, content, and grounded theory analysis. Recognising that quantitative and qualitative methods have limitations, some researchers propose the use of mixed methods for research. Whether using quantitative, qualitative, or mixed method approach, secondary and primary data complements each other and can be used efficiently and effectively to achieve research objective. To achieve the research aims and objectives, the research adopts the pragmatic world view for the study. The qualitative data analytic procedure is reported in a connected narrative approach and all interviews were transcribed and analysed using thematic analyses. For quantitative data, the researcher employed descriptive statistics of mean, frequency distribution, standard deviation and determined associations such as correlation. The Chi-square (cross tabulation) analysis was used to determine relationships between two nominal variables. The subsequent chapter uses prevailing qualitative and quantitative analysis techniques based on the objectives of the research to investigate the relationships between

variables that affect the behaviour of respondents in adopting social marketing intervention programmes on HIV/AIDS in Ghana.

Chapter 5

Data Analysis and Results

5.0 Introduction

The previous chapter explains the various quantitative and qualitative concepts of data collection and analysis techniques, and indicates the methodological stance adopted to achieve the aim and objectives of this research. A selection of prevailing qualitative and quantitative analysis techniques based on the objectives of the research is used in this chapter to investigate the relationships between variables that affect the behaviour of respondents in adopting social marketing intervention programmes on HIV/AIDS in Ghana. The aim of this research is to determine the effectiveness of social marketing intervention programmes in reducing HIV new infections in Ghana. The focus is on developing/employing behavioural change model to design effective social marketing intervention programmes on HIV/AIDS in Ghana. The study addresses the following specific objectives: (a) to determine the nature and extent of social marketing intervention programmes on HIV/AIDS in Ghana, (b) to ascertain the impact of the social marketing intervention programmes on HIV/AIDS related behaviours in Ghana, (c) to evaluate the behavioural intentions, knowledge and skills and other environmental factors which could enhance or prevent Ghanaians from adopting recommendations of social marketing intervention programmes on HIV/AIDS, (d) to determine the perceived norm, personal agency and attitude of Ghanaians toward HIV/AIDS interventions, and recommend an integrative behaviour model that could be used to design effective social marketing intervention programmes on HIV/AIDS in Ghana.

In this chapter, the first section analyses qualitative data collected from implementers of social marketing intervention programmes on HIV/AIDS in Ghana. The qualitative data

analytic procedures is reported in a connected narrative approach (Misler, 1990), and all interviews were transcribed and analysed using thematic analyses (Braun and Clark, 2006). The analyses of qualitative data follows (Braun and Clark , 2006) approach to data familiarisation, initial coding generation, searching for themes based on the initial coding, review of themes, theme definition and labelling, and report writing.

Secondly, in the quantitative section, descriptive statistics such as mean, standard deviation (SD) and frequency distribution tables were employed to describe the sample data matrix in such a way as to portray the ‘typical’ respondent, and to reveal the general pattern of responses (Burns and Bush, 2010). To extract the significance of the results, further analyses were carried out using cross-tabulation to determine if there is a non-monotonic relationship between two nominal variables and chi-square is used to determine whether or not there is a statistically significant association between two nominal variables. Further, a t-test was used to examine whether the means of two groups of data are significantly different from each other. The analysis of variance (ANOVA), as an extension of t-test, is used to test the significant difference of means between more than two groups. Finally, correlation coefficient is employed to measure the strength of the relationship between two variables that will give an indication of both direction (positive or negative) and strength of the relationships (Pallant, 2010). This chapter tests 13 hypotheses formulated for the study in section 5.3.

5.1 Qualitative Data Analysis

This section provides analysis for an in-depth interview of 6 directors from the institutions charged with the responsibilities of developing and implementation of social marketing intervention programmes on HIV/AIDS in Ghana, namely Ghana Social Marketing

Foundation, Ghana AIDS Commission, and Ghana National AIDS Control Programme. These in-depth interviews were conducted for exploratory purpose to help design the main questionnaire for the study. Questions for discussions covered issues such as types and objectives of social marketing interventions, segmentation and targeting of social marketing interventions, environmental factors that hinder adoption of HIV-protective behaviours, and challenges in the implementation of social marketing intervention programmes.

5.1.1 Types and Objectives of Social Marketing Interventions on HIV/AIDS in Ghana

When asked to describe the objectives they seek to achieve with social marketing intervention programmes, all the respondents from the three institutions interviewed indicated that the objectives of social marketing interventions on HIV/AIDS in Ghana are mainly to: (i) provide testing and counselling facilities and encourage people to know their HIV/AIDS status, (ii) encourage condom usage, (iii) reduce stigmatisation and discrimination among people living with HIV/AIDS, (iv) prevent mother-to-child transmission and (v) promote abstinence and faithfulness to one mutual partner, and create awareness on antiretroviral therapy. All the directors interviewed revealed that the major challenge facing them is how to get people to know their HIV/AIDS status. When asked to describe the nature of social marketing intervention programmes on HIV/AIDS, the response from a director of Ghana AIDS Commission shows the frustrations of the implementers as follows:

“We have those that relate to services and those that relate to commodities like condoms, so taking services as an example, we have put in place a number of services for prevention, for care and treatment. For example a key service is testing and counselling. Now in this country only few, less than 10% of the population have tested for HIV which is very low. Meanwhile we have the testing facility in all health care facilities in the country so the

question is why people are not accessing HIV testing facilities? What we believe to be the answer is the issue of stigmatisation. People feel that first if they get to know their HIV status, it might hasten their death. Secondly, some think that other people will get to know and they will be socially stigmatized. So mainly the testing we see in the hospital setting is more of diagnostic where people walk in after taking his/her problem and realising that probably he/she might have something to do with HIV infection then they are asked to do the test. Sometimes you have young couples who want to marry and the church demands that they do HIV test. To see people on voluntary bases for testing is quite limited but that is an area which is very critical for reducing HIV infection”.

When asked why recent strategies/programmes have focussed much attention on HIV testing and counselling instead of their traditional ABC (Abstinence, Be faithful, and Condom usage) approach? A response from one of the directors at National AIDS Control Programme explains as follows:

“AIDS is the disease stage so as much as we get people getting tested to know their status, they would not get sick only for them to go to the hospital then after everything has been done and the doctors can't find the cause, they tell them to go and do an HIV antibody test. By that time they would have reached the AIDS stage but if we sensitise them and they get tested early, then of course they will know they are HIV positive. At this early stage, they will be monitored and when they are due for their drug it will be given to them and they wouldn't even move to the AIDS stage. So that is the essence with all the noise going round so that people will be aware of what is going on, go out there get tested”.

When asked to describe the role of Ghana AIDS Commission in reducing HIV/AIDS infections, the directors from the Commission explained the mandate assigned to them by law and indicated how serious HIV/AIDS epidemic could be if nothing is done to prevent it.

“Our mandate is to coordinate the national AIDS response, provide policies to guide the response and then monitor, research, evaluate the response and then raise funds to finance the response. So we are only living up to our responsibilities in the context of the mandate that we have been given by law. Now what we need to also recognise is that HIV epidemic is a serious one for any country. If nothing is done it can wipe out the largest part of the population. We are guided by our national strategic plans to do what we are doing and this is what we are implementing now. This is the third national strategy since we started implementing national HIV and AIDS programmes. Through the implementation of the various strategies, we have seen HIV epidemic coming down over the last decade so it is something worthwhile doing”.

5.1.2 Targets for Social Marketing Intervention Programmes on HIV/AIDS

Regarding the targeting of social marketing intervention programmes, the result reveals that all the implementers of social marketing intervention programmes on HIV/AIDS target the entire Ghanaian population. Though four of the directors interviewed recognise the difference in prevalence among some groups and districts in Ghana, they do not design tailor-made intervention strategies/programmes for any particular group with the explanation that they do not see any significant difference between Ghanaians. When asked whether they have different intervention programmes for different target groups, the response provided by a director of Ghana National AIDS Control Programme affirmed majority position in their responses as follows:

“Human beings are complex, but there are cross-cutting things which are fundamental which would affect everyone irrespective of who they are. It’s only some tiny differences that you need to cater for. But in doing this, you will take a lot of things into consideration. Practically, one needs to do cost and benefits analysis. If we try to come up with different

things for different target groups it may not be cost effective, in fact our resources would not even allow for that so we look at what is common and try to adapt. We would not tailor our messages to specific theory of behaviour models to influence different target audience because we realise that there are certain common things that run through the Ghanaian population”.

When probed further whether the implementers intend to design tailor-made interventions for areas with high HIV/AIDS prevalence, majority indicated that they have no intention of doing that. The responses below by two directors at Ghana Social marketing foundation and Ghana National AIDS Control programme summarises the views of most implementers.

“We don’t because that is part of stigmatising and demographically or location specific things”. “I told you that studying people behaviour would not produce any positive result that suggests to us that there are significant differences in behaviour across the country. So once you have that evidence what do you do with it? You don’t have to necessarily move resources because you’ve noticed some individual change. They may not be significant, you know, statistically when you are doing social science, you rather move with statistical findings and conclusions. Though there are those differences, when we do the analysis it doesn’t give us any impression that they are very significantly different and therefore by sight to sight we may not necessarily come out with something unique for let’s say Agomanya as compared to let’s say somewhere in Tarkwa”.

However, two other directors from Ghana AIDS Commission shared a different opinion on the issue and indicated that they segment the population for different programmes. One of them provided the following response.

“We target the general population but we segment the population. We have youth, we have women, we have children, the aged then we have sex workers, men who have sex with men even youth we break them into various groups. We have programmes for basic level students and when you take tertiary institutions they have a different package of programme. Out of school children also have their package of programme. So everybody is targeted but the information is organised in a way to meet the specific needs of the various segments of the population”.

It was interesting to note from further discussions that even though, they target every segment of the population, they do not design a single social marketing intervention programme on HIV/AIDS to meet the specific needs of segments identified. Rather, they organised their interventions in a way to meet the needs of the various segments of the population. They sometimes communicate social marketing interventions in different native languages for some tribes in Ghana but with the same content. A director from Ghana National AIDS Control Programme was worried about their inability to design tailor-made interventions and laments as follows:

“Maybe I will start with my challenge; for me my challenge you know like I said earlier on is that we need to know our target group to tailor-made whatever information that goes to them, so where it’s not tailor-made, it’s like blanket something, like one cup fits all and it becomes a challenge. We think we are doing much but we end up not yielding much result because a generalised intervention might not go down well with everyone. That is my greatest challenge”.

The analysis of the in-depth interviews further revealed that the institutions that sponsor social marketing intervention programmes on HIV/AIDS in Ghana are no longer interested in sponsoring generalised interventions; rather they are only prepared to sponsor targeted

interventions. This came to the fore when the enquiries sought to find out if donor organisations were happy with the impact of the generalised social marketing interventions on HIV/AIDS in Ghana. A director at Ghana National AIDS Control Programme provided the following revelation to collaborate with majority views on the issue.

“That is why I have to add that even now our major funding partners are committing us to some priority areas. For instance, they want to put their money in where they think would make the greatest impact, they want to put money into treatment, interventions targeted at men having sex with men, injection drug users etc. Not general again because too much has been done in that area. They believe that we’ve gone through the phase; enough has been done with generalised information. Most of the interventions have now been integrated into general service. Okay, so now the system is taking care of those. Though we caution people not to go to sleep with that, in terms of prioritisation of their resources, they would prefer that they are pushed to these areas”.

Regarding research findings to design effective social marketing intervention programmes on HIV/AIDS, the result found that most implementers utilise research findings to help them know what is happening in terms of the epidemiology; how many people are infected between the general population, who is being infected, what is the source of the infection and what are the barriers to change- for instance, what are preventing people from using condom.

When asked whether the implementers utilise some theoretical models to aid their design of social marketing interventions on HIV/AIDS, majority indicated that they do not employ such models. Two of them were quick to mention that they apply behavioural change models in designing their interventions but they were unable to describe the type of models employed. This suggests that most implementers of social marketing interventions on HIV/AIDS in Ghana do not employ behavioural change theories/models in planning their

interventions irrespective of the fact that the existing literature indicates their usefulness in enhancing the effectiveness of any intervention.

Though Ghana AIDS Commission is mandated to coordinate the activities of various implementers in the country, the result found that the activities of the implementers are not well-coordinated. A director at Ghana National AIDS Control Programme lamented as follows: to show how some Ghanaians and implementers are dissatisfied with some interventions on HIV/AIDS in Ghana.

“Sometimes when they see the intervention on HIV/AIDS, they ask why we should put up such an advertisement. Or sometimes they will look at it and say, ‘oh NACP, your name is not there, it is Ghana AIDS Commission; why should they put such an advert up? Do they assume that every young person uses condom? Or who exactly are they trying to talk to? Sometimes they ask us these questions and I say we didn’t do it. As experts, we do not have the opportunity to make input into some interventions seen on television or heard on radio. You know Ghana and the “whom-you-know” syndrome, by the time one could say it shouldn’t be done this way, they have done it and have been paid over a period of time- so it will run.”

This is a very worrying situation because the experts in social marketing interventions in Ghana know that some social marketing interventions on HIV/AIDS in Ghana are not right to be run in the media yet they see them on the various communication platforms in Ghana. Another respondent indicated that sometimes they even wonder the people who are behind such interventions.

“When we hear some social marketing interventions on radio, we say ‘Ah but it shouldn’t be said this way. ‘And we wonder sometimes who are the people behind those adverts”.

5.1.3 Environmental Factors that hinder the adoption of Social Marketing Programmes on HIV/AIDS.

The result reveals many economic and socio-cultural factors that could prevent Ghanaians from adopting social marketing recommendations on HIV/AIDS. In most cultures in Ghana, women do not discuss sexual issues with their partners. For this reason, women are rarely able to ask their partners to use condoms. The implementers are also of the view that fear of dying early for knowing one's HIV status and stigmatisation have prevented many for going in for HIV test. The implementers were also worried that people do not report rape cases which are major source of getting infected with HIV because they feel they will be stigmatised or no one will marry them if it becomes public notice that they have been raped. Three of the directors interviewed see religion as one of the factors preventing some Ghanaians to adopt social marketing interventions on HIV/AIDS. They explained further that some religious groups in Ghana for instance do not understand why implementers should encourage people who are not married to use condom. Some believe that by encouraging homosexuals and young people who are not married to use condom or keep to one sexual partner, the implementers are leading them down to the moral turpitudinal road and therefore, there are people who object to what the implementers are doing. All the implementers mention economic factor as a major driving force preventing the adoption of social marketing recommendations on HIV/AIDS. An example from a director of Social Marketing Foundation describes the themes identified from all the responses.

“Economic factor in our part of the world is one of the driving forces. Students in the universities might know that it might not be too good to have sexual relationship with more than one man but for some they need to pay for their tuition fees, accommodation, buy credit for their mobile phones etc. Now she will think of the immediate consequences of being

sacked from school or ejected from her room rather than looking at medium term/ long term of having HIV which might cripple her and kill her eventually and slip to the other side”.

The director in question further cautioned and provided suggestions for Ghanaian environment to be conducive for social marketing interventions on HIV/AIDS.

“Awareness alone cannot change people’s behaviour if the environment doesn’t support them. I think interventions have to be sustained for a longer time and more work has to be done on making the environment supportive of that change at the individual level”.

5.1.4 Challenges in Implementation of Social Marketing Intervention Programmes

When asked to describe the challenges in implementation of social marketing intervention programmes, all the implementers indicate the following as the main challenges confronting them in their attempt to reduce new HIV infections: the donors of the social marketing intervention programmes on HIV are demanding tailor-made interventions as against the generalised interventions. They also indicated lack of adequate financing, health system barriers, procurement delays that sometimes lead to shortages of condoms and antiretroviral drugs, limitation of human resources, and media misrepresenting information on HIV/AIDS. The response below by a director from Ghana National AIDS Control Programme describes what implementers of social marketing interventions on HIV/AIDS see as health system barriers.

“There are health system barriers; what we are doing may not necessarily be the priority, because the health sector has malaria, tuberculosis, HIV/AIDS and other diseases to deal with. Even if we see HIV/AIDS very serious they cannot abandon everything and come to us”.

5.1.5 Extent/Coverage of Social Marketing Interventions on HIV/AIDS

On the extent or coverage of social marketing interventions on HIV/AIDS in Ghana, all the directors interviewed assert that the coverage is nationwide. In other words, every Ghanaian has the opportunity of hearing/seeing social marketing interventions on HIV/AIDS irrespective of the location of the individual. However, some residents in Ghana might not receive the interventions on HIV/AIDS due to their inability to access some mediums of communications. It was clear from the responses that all the implementers have, national, regional, district, and sub district coordinators. The explanations provided by directors at Ghana AIDS Commission and National AIDS Control Programme summarise the main themes identified through the in-depth interview.

}

"We are at the national level; our duty is to train counsellors as well as trainees, and these are from the 10 regions in Ghana. So whatever is done in greater Accra, it's the same that is done in the northern region, upper east or upper west. We have programme managers and they are the national officers and when you go to the regional level, we have regional trainers as well as regional counsellors. And it's not just the regional level, they are at the districts and the sub districts, even at the CHIP (community Health Post) zones."

"I will say the whole country, National even up to district and sub district level. In the Ghana health service structure we go as far as the CHIP zones the lowest level. The rest I think will be determined by the person access to the media. Our interventions run on some of the media, so if you are in the country and you don't have access to television, then you will not get it. But we will try to carefully choose, for instance Ghana Television (GTV) which has a wider coverage".

On the effectiveness of the various platforms for communicating social marketing interventions on HIV/AIDS in Ghana, all the respondents came to a conclusion that even though they use the available media, through research they have come to the realisation that the most effective of all the available mediums are radio and television.

5.1.6 Perception of Ghanaians on HIV/AIDS

To help design the main questionnaire, the research sought to find out from the point of view of implementers, the perceptions of Ghanaians on HIV/AIDS epidemic. The thematic analysis found the following as the general perception of Ghanaians on HIV/AIDS. (1) Some Ghanaians still believe that HIV is transmitted by supernatural powers, (2) Some still believe that is transmitted through mosquito bites, (3) some believe that when you urinate behind somebody's house without permission or sleep with somebody's wife you will get HIV, (4) some people also believe that HIV/AIDS is religious, it is God-sent, it's a punishment or a curse from God because of that people prefer going to prayer camps instead of getting treatment from hospitals, (5) they believe that HIV is a death sentence, when you acquire HIV, it means you are dying or you will die soon, (6) for the youth some think that HIV is far away from them, (7) some think that AIDS is not a dangerous disease because one could live with it for a long period of time and (8) some believe in the social marketing recommendations on HIV/AIDS as means of preventing the epidemic.

5.1.7 Summary of Qualitative Results

The in-depth interviews revealed that the objectives of social marketing interventions on HIV/AIDS in Ghana are designed to encourage people to (i) know their HIV/AIDS status, (ii) encourage condom usage, (iii) reduce stigmatisation and discrimination among people living with HIV/AIDS, (iv) prevent mother-to-child transmission, (v) promote abstinence or faithfulness to one mutual partner, and (vi) create awareness on antiretroviral therapy. The

result reveals that social marketing interventions on HIV/AIDS in Ghana target the entire Ghanaian population. Though the implementers of social marketing intervention programmes recognise the difference in prevalence among some groups and districts in Ghana, they do not design tailor-made interventions strategies for any particular group. The results show that implementers of social marketing interventions on HIV/AIDS do not utilise behavioural change theories/models in planning their interventions irrespective of their usefulness in enhancing the effectiveness of any intervention. The main challenges facing implementers include inadequate financing, health system barriers, procurement delays, lack of human resources, and media misrepresentation. The next section provides analysis for the quantitative part of the study.

5.2 Quantitative Data analysis

This section provides analysis of the face-to-face interviews involving 481 respondents who co-operated for the study.

5.2.1 Descriptive Analysis

Questionnaires were administered face-to-face to respondents in Lower Manya and Fanteakwa districts in the Eastern Region of Ghana. In all, 600 respondents were contacted but 494 representing 82.3% cooperated. Of this, 13 questionnaires were rejected as incomplete, resulting in completion of 481 questionnaires, representing 80.2% for the study.

In table 5.1, the analysis of the data reveals that 49.3% of respondents were male and 50.7% female. About 30% of respondents were within 18-24 age group, 33.9% in the 25-30 age group, 24% in the 31-40 age group and 11.6% in the 41-50 age group. This means that majority of respondents 64.3% were between 18-30 age group who appear to be the most

aggressive group. Majority of respondents 69% had education up to junior high school and 31% had either senior high school or tertiary education. The result further reveals that 46.8% of respondents were single, 48.2% were married, whilst 5% were either divorced, widowed, or cohabitated. An overwhelming majority of respondents (92.3%) were Christians and the rest belong to other religions.

Table 5.1: Descriptive Statistics of Socio-Demographic Characteristics of the Respondents.

| Variable | Categories | No | % |
|-------------------|------------------------|-----|------|
| Gender | Male | 237 | 49.3 |
| | Female | 244 | 50.7 |
| Age Group | 18-24 | 146 | 30.4 |
| | 25-30 | 163 | 33.9 |
| | 31-40 | 116 | 24.1 |
| | 41-50 | 56 | 11.6 |
| Current Education | No Formal Education | 63 | 13.1 |
| | Primary Education | 83 | 17.1 |
| | JHS Education | 186 | 38.7 |
| | SHS/A' Level Education | 92 | 19.2 |
| | Tertiary Education | 57 | 11.9 |
| Marital Status | Single | 225 | 46.8 |
| | Married | 232 | 48.2 |
| | Divorced | 14 | 2.9 |
| | Widowed | 7 | 1.5 |
| | Co-habitation | 3 | 0.6 |
| Religion | Christians | 444 | 92.3 |
| | Muslims | 29 | 6.1 |
| | Traditional Religion | 4 | 0.8 |
| | No Religion | 1 | 0.2 |
| | Other Religions | 3 | 0.6 |
| Tribe | Ga/Dangme | 260 | 54.1 |
| | Akan | 150 | 31.2 |
| | Ewe | 30 | 6.2 |
| | Dagbani | 23 | 4.8 |
| | Grussi | 4 | 0.8 |
| | Gruma | 3 | 0.6 |
| | Guan | 2 | 0.4 |
| | Others | 9 | 1.9 |
| District | Lower Manya | 212 | 44.1 |
| | Fanteakwa | 269 | 55.9 |
| Area | Rural | 132 | 27.4 |
| | Urban | 349 | 72.6 |

Majority of respondents (54.1%) were from Ga/Dangme tribe, 31.2% were Akans, whilst the rest were from other tribes. finally, 44.1% and 55.9% were from Lower Manya and Fanteakwa districts respectively, and 27.4% and 72.6% were from rural and urban areas respectively.

5.2.3 Knowledge and Impact of Social Marketing Interventions on HIV/AIDS

The research sought to find out whether respondents have seen or heard social marketing interventions on HIV/AIDS. The result indicates that 98.1% of the respondents have seen or heard social marketing interventions on HIV/AIDS of which 72.8% have seen or heard social marketing interventions on HIV/AIDS for more than five years. Only 27.2% have seen or heard the interventions for less than five years. This suggests that respondents’ awareness on HIV/AIDS is very high and they have seen/heard social marketing interventions on the disease for a long time.

5.2.3.1 Gender and their Awareness of Social Marketing Interventions on HIV/AIDS

A cross tabulation analysis was conducted to help understand if there is a relationship between respondents’ gender and their level of awareness of social marketing interventions on HIV/AIDS. The result in table 5.2 shows that 98.7% of the male respondents are aware of social marketing interventions on AIDS.

Table 5.2: Respondents’ Awareness of Social Marketing Intervention on AIDS by Gender.

| Variable | Male | Female | Total |
|-------------|-------|--------|-------|
| Awareness | 234 | 238 | 472 |
| | 98.7% | 97.5% | 98.1% |
| Unawareness | 3 | 6 | 9 |
| | 1.3% | 2.5% | 1.9% |
| Total | 237 | 244 | 481 |
| | 100% | 100% | 100% |

In comparison, 97.5% of female respondents are aware of the interventions on AIDS. Therefore, almost all the respondents (both male and female) are aware of social marketing intervention programmes on AIDS.

To understand if the difference between male and female observed in table 5.2 actually represent a real difference in the whole population, a chi-square analysis was conducted. In table 5.3, the result reveals that there is no statistically significant relationship ($P>0.334$) between respondents gender and the level of awareness of social marketing interventions on HIV/AIDS.

Table 5.3: Chi-Square Tests: Gender Awareness on HIV/AIDS

| Pearson Chi-Square | Df | Asymp. Sig. (2-sided) | Nominal by Phi |
|--------------------|----|-----------------------|----------------|
| .932a | 1 | .334 | 0.44 |

Significant Level= $P<0.05$

5.2.3.2 Urban and Rural Respondents and their Awareness of Social Marketing Interventions on HIV/AIDS.

A cross tabulation analysis was conducted to understand if there is a relationship between location of respondents and their awareness of social marketing interventions on HIV/AIDS. The result in table 5.4 shows that 94.7% of rural respondents are aware of interventions on HIV/AIDS, whilst 99.4% of urban respondents claim to be aware of interventions on HIV/AIDS. The result suggests that social marketing intervention programmes are more effective in the urban areas than rural areas.

To determine the significant difference between rural and urban respondents observed in table 5.4, a chi-square test was conducted. The result in table 5.5 reveals that there is a weak ($\phi=.156$) but statistically significant relationship ($p<.001$) between respondents who are in

the rural areas and their urban counterparts and their awareness of social marketing intervention programmes on HIV/AIDS.

Table 5.4: Cross-Tabulation of Awareness of Social Marketing Intervention on AIDS by Location

| Variable | Rural | Urban | Total |
|-------------|-------|-------|-------|
| Awareness | 125 | 347 | 472 |
| | 94.7% | 99.4% | 98.1% |
| Unawareness | 7 | 2 | 9 |
| | 5.3% | 0.6% | 1.9% |
| Total | 132 | 349 | 481 |
| | 100% | 100% | 100% |

This is because respondents who live in the urban areas are more likely to have access to the various vehicles of communications on HIV/AIDS than their rural counterparts.

Table 5.5: Chi-Square Tests: Respondents' Location and their Awareness on HIV/AIDS

| Pearson Chi-Square | Df | Asymp. Sig. (2-sided) | Nominal by Phi |
|---------------------|----|-----------------------|----------------|
| 11.670 ^a | 1 | .001* | -.156 |

Significant Level= P<0.05

5.2.4 Medium of Receiving Social Marketing Interventions on HIV/AIDS

Further analysis to determine the effective channels used to communicate social marketing intervention programmes show that 91.3% of the respondents agree to receiving information on radio, and 79.2% on television, 63.2% through health workers, and 51.8% through word of mouth. Only a minority of respondents agree that they have heard or seen social marketing interventions on AIDS through billboards (27.1%), conference/presentation (19.9%), posters/pamphlets (16.6%) and newspapers/magazines (16.3%) (see table 5.36 in appendix 3). The result suggests that radio, television, health workers, and word-of-mouth are the most

effective channels to communicate social marketing intervention programmes to the respondents.

An ANOVA or t-test analysis was conducted to find out whether there is a statistically significant difference between respondents' age group, current level of education, and location and their medium of receiving social marketing interventions on HIV/AIDS. On the medium of receiving interventions on HIV/AIDS, the mean score is compared to an assumed mean score of 2. When the results show that the mean of a variable is close to 2 or less than 2, then it means respondents disagree with the statement. However, when the mean score is 4 or more, it means that the respondents agree with the statement, while a mean score of 3 indicates that the respondents are neutral. The result in table 5.6a reveals that on the average, the respondents strongly agree that they have received social marketing interventions on HIV/AIDS from radio (mean=4.54, SD= 0.849) and television (mean=4.14, SD= 1.539). However, on the average, the respondents disagree that they have received social marketing interventions on HIV/AIDS from newspapers/magazines (mean=2.00, SD=1.287), billboards (mean=2.31, SD=1.453), conference/presentation (mean=2.00, SD=1.398) and posters/pamphlets (mean=1.89, SD=1.268), whilst on average, the respondents were neutral as to whether they received information on HIV/AIDS from health workers (mean=3.49, SD=1.708), and Word of mouth (mean= 3.07, SD=1.747).

Table 5.6a: Respondents' Age Group and Medium of Receiving Social Marketing Interventions on HIV/AIDS.

| Media | Age | Mean | SD | F ratio | Sig. |
|------------|-------|--------|---------|---------|--------|
| Radio | 18-24 | 4.3636 | 1.07824 | 3.090 | 0.027* |
| | 25-30 | 4.6101 | 0.72838 | | |
| | 31-40 | 4.6316 | 0.75566 | | |
| | 41-50 | 4.6250 | 0.58968 | | |
| | Total | 4.5424 | 0.84857 | | |
| Television | 18-24 | 4.4685 | 1.18562 | 4.208 | 0.006* |

| | | | | | |
|-------------------------|-------|--------|---------|-------|--------|
| | 25-30 | 4.1572 | 1.58128 | | |
| | 31-40 | 3.8246 | 1.75613 | | |
| | 41-50 | 3.9286 | 1.61647 | | |
| | Total | 4.1441 | 1.53943 | | |
| News Papers/Magazines | 18-24 | 2.0699 | 1.27075 | 1.999 | 0.113 |
| | 25-30 | 2.1069 | 1.31009 | | |
| | 31-40 | 1.9561 | 1.33297 | | |
| | 41-50 | 1.6429 | 1.11890 | | |
| | Total | 2.0042 | 1.28687 | | |
| Billboards | 18-24 | 2.4266 | 1.50347 | 1.881 | 0.132 |
| | 25-30 | 2.3396 | 1.43567 | | |
| | 31-40 | 2.3246 | 1.52557 | | |
| | 41-50 | 1.8929 | 1.15489 | | |
| | Total | 2.3093 | 1.45334 | | |
| Posters/Pamphlets | 18-24 | 1.9790 | 1.33463 | 3.160 | 0.024* |
| | 25-30 | 2.0000 | 1.29263 | | |
| | 31-40 | 1.8684 | 1.27961 | | |
| | 41-50 | 1.4286 | 0.84975 | | |
| | Total | 1.8941 | 1.26751 | | |
| Conference/Presentation | 18-24 | 2.1049 | 1.43259 | 0.468 | 0.705 |
| | 25-30 | 1.9434 | 1.30842 | | |
| | 31-40 | 2.0175 | 1.51092 | | |
| | 41-50 | 1.8929 | 1.33046 | | |
| | Total | 2.0042 | 1.39760 | | |
| Health Workers | 18-24 | 3.5694 | 1.66264 | 1.257 | 0.289 |
| | 25-30 | 3.2893 | 1.73696 | | |
| | 31-40 | 3.6667 | 1.70199 | | |
| | 41-50 | 3.5357 | 1.73692 | | |
| | Total | 3.4947 | 1.70756 | | |
| Word of Mouth | 18-24 | 3.1319 | 1.70251 | 0.364 | 0.779 |
| | 25-30 | 3.1321 | 1.77932 | | |
| | 31-40 | 2.9737 | 1.71129 | | |
| | 41-50 | 2.9286 | 1.86701 | | |
| | Total | 3.0698 | 1.74709 | | |

*Significance Level= $P < 0.05$

The ANOVA result shows a significant difference ($F=3.090$, $P<0.027$) between respondents' age group and whether they received social marketing interventions on HIV/AIDS from radio. The respondents within 18-24 age group (mean=4.36, SD=1.078) are less likely to have received information on HIV/AIDS from radio than their counterparts in other age groups. The result also shows a significant difference ($F=4.208$, $P<0.006$) between respondents age group and whether they received social marketing interventions on HIV/AIDS from television. The respondents within 18-24 age group (mean=4.47, SD=1.186) strongly agree that they received information on HIV/AIDS from television than those in other age groups. Further analysis reveals a significant difference of ($F=3.160$, $P<0.024$) between age groups and their receipt of social marketing interventions on HIV/AIDS from posters/pamphlets. The result shows that respondents within 41-50 age group (mean=1.43, SD=0.849) are less likely to access interventions on HIV/AIDS from posters/pamphlets. Evidence in table 5.6a shows that there is no statistically significant difference between respondents age group and whether they received interventions on HIV/AIDS from health workers ($F=1.257$, $P>0.289$), billboards ($F=1.881$, $P>0.132$), word of mouth ($F=0.364$, $P>0.779$), news papers/magazines ($F=1.999$, $P>0.133$) and conference/presentation ($F=0.468$, $P>0.705$).

On respondents' current level of education and the medium of receiving social marketing interventions on HIV/AIDS, ANOVA analysis was conducted to find out whether there is a statistically significant difference. As presented in table 5.6b, on the average, the respondents received social marketing interventions on HIV/AIDS from radio (mean=4.54, SD=0.849) and television (mean=4.89, SD=0.557). However, on the average, they are less likely to access social marketing interventions on HIV/AIDS from newspapers/magazines (mean=2.00, SD=1.287), billboards (mean=2.31, SD=1.453), posters/pamphlets (mean=1.89,

SD=1.268) and conference/presentation (mean=2.00, SD=1.398), whilst on average, the respondents were not sure whether they received social marketing interventions on HIV/AIDS from health workers (mean=3.49, SD=1.706) and word of mouth (mean=3.07, SD=1.747).

Table 5.6b: Respondents' Current Level of Education and Medium of Receiving Social Marketing Interventions on HIV/AIDS.

| Media | Level of Education | Mean | SD | F ratio | Sig. |
|---------------------|------------------------|--------|---------|---------|--------|
| Radio | No Formal Education | 4.5410 | 0.78685 | 1.421 | 0.226 |
| | Primary Education | 4.4699 | 0.80148 | | |
| | JHS Education | 4.5746 | 0.82409 | | |
| | SHS/A 'Level Education | 4.4222 | 1.01647 | | |
| | Tertiary Education | 4.7368 | 0.74466 | | |
| | Total | 4.5424 | 0.84857 | | |
| Television | No Formal Education | 3.2623 | 1.90527 | 21.165 | 0.001* |
| | Primary Education | 3.3735 | 1.87220 | | |
| | JHS Education | 4.2210 | 1.43983 | | |
| | SHS/A 'Level Education | 4.8222 | 0.74318 | | |
| | Tertiary Education | 4.8947 | 0.55691 | | |
| | Total | 4.1441 | 1.53943 | | |
| Newspapers/Magazine | No Formal Education | 1.2951 | 0.58720 | 17.960 | 0.001* |
| | Primary Education | 1.6145 | 0.85299 | | |
| | JHS Education | 1.9227 | 1.20857 | | |
| | SHS/A 'Level Education | 2.4889 | 1.42407 | | |
| | Tertiary Education | 2.8246 | 1.64884 | | |
| | Total | 2.0042 | 1.28687 | | |
| Billboards | No Formal Education | 1.4918 | 0.82912 | 13.664 | 0.001* |
| | Primary Education | 1.8675 | 1.18703 | | |
| | JHS Education | 2.3425 | 1.41963 | | |
| | SHS/A 'Level | 2.7444 | 1.58335 | | |

| | | | | | |
|-------------------------|------------------------|--------|---------|--------|--------|
| | Education | | | | |
| | Tertiary Education | 3.0351 | 1.62530 | | |
| | Total | 2.3093 | 1.45334 | | |
| Posters/Pamphlets | No Formal Education | 1.2131 | 0.45147 | 20.216 | 0.001* |
| | Primary Education | 1.4458 | 0.73672 | | |
| | JHS Education | 1.7901 | 1.18327 | | |
| | SHS/A 'Level Education | 2.5556 | 1.47725 | | |
| | Tertiary Education | 2.5614 | 1.59259 | | |
| | Total | 1.8941 | 1.26751 | | |
| Conference/presentation | No Formal Education | 1.3934 | 0.71365 | 15.030 | 0.001* |
| | Primary Education | 1.5542 | 1.07355 | | |
| | JHS Education | 1.9061 | 1.38525 | | |
| | SHS/A 'Level Education | 2.4778 | 1.45516 | | |
| | Tertiary Education | 2.8772 | 1.66980 | | |
| | Total | 2.0042 | 1.39760 | | |
| Health Workers | No Formal Education | 3.4754 | 1.84938 | 1.722 | 0.144 |
| | Primary Education | 3.7229 | 1.72013 | | |
| | JHS Education | 3.5549 | 1.62669 | | |
| | SHS/A 'Level Education | 3.5000 | 1.69102 | | |
| | Tertiary Education | 2.9825 | 1.76768 | | |
| | Total | 3.4947 | 1.70756 | | |
| Word of Mouth | No Formal Education | 3.0328 | 1.86161 | 0.166 | 0.956 |
| | Primary Education | 3.0482 | 1.80719 | | |
| | JHS Education | 3.0769 | 1.74464 | | |
| | SHS/A 'Level Education | 3.1778 | 1.69982 | | |
| | Tertiary Education | 2.9474 | 1.66284 | | |
| | Total | 3.0698 | 1.74709 | | |

*Significant Level= $P < 0.05$

In table 5.6b, ANOVA result shows a statistically significant difference ($F=21.165$, $P<0.001$) between respondents' level of education and whether they received social marketing interventions on HIV/AIDS from television. On the average, respondents with tertiary education (mean=4.89, SD=0.557) and SHS/A 'Level education (mean=4.82, SD=0.743) have the strongest belief that they received social marketing interventions on HIV/AIDS from television, whilst respondents with no formal education (mean=3.26, SD=1.905) and primary education (mean=3.37, SD=1.872) are neutral. It is interesting to observe from the data that as respondents' education increases, their agreement to have received interventions on HIV/AIDS from television becomes stronger. This is because the official language for most television stations in Ghana is English. Therefore, respondents with no formal and primary education are unable to receive and understand information on HIV/AIDS from television as compared to their counterparts with higher levels of education.

Further ANOVA analysis shows a statistically significant difference between respondents' level of education and whether they received social marketing interventions on HIV/AIDS from newspapers/magazines ($F=17.960$, $P<0.001$), billboards ($F=13.664$, $P<0.001$), posters/pamphlets ($F=20.216$, $P<0.001$) or conference/presentation ($F=15.030$, $P<0.001$). The respondents with no formal education strongly disagree that they received social marketing intervention programmes on HIV/AIDS from newspapers/magazines (mean=1.29, SD=0.587), billboards (mean=1.49, SD=0.829), posters/pamphlets (mean=1.21, SD=0.451) or conference/presentation (mean=1.3934, SD=0.714). This suggests that respondents with no formal education are less likely to access social marketing intervention programmes from newspapers/magazines, billboards, posters/pamphlets, or conference/presentation. Evidence in table 5.6b suggests that there is no statistically significant difference between respondents' level of education and their receipt of social marketing intervention programmes from radio

($F=1.421$, $P>0.226$), health workers ($F=1.722$, $P>0.144$) or word of mouth ($F=0.166$, $P>0.956$).

A t-test analysis was conducted to find out if there is a statistically significant difference between respondents' location and medium of receiving interventions on HIV/AIDS. The t-test result as presented in table 5.6c, shows that there is a statistically significant difference between respondents' location and their receipt of social marketing intervention programmes from television ($t(470) = -15.892$, $P<0.001$), newspapers/magazines ($t(470)=-5.398$, $P<0.001$), billboards ($t(470)= -7.141$, $P<0.001$), posters/pamphlets ($t(470)=-5.608$, $P<0.001$), conference/presentation ($t(470)=-3.992$, $P<0.001$) or word of mouth ($t(471)=-3.115$, $P<0.0032$).

Table 5.6c: Location of Respondents and Medium of Receiving Interventions on HIV/AIDS

| Media | Location of Respondents | N | Mean | T-test | Df | Sig. |
|-------------------------|-------------------------|-----|--------|---------|-----|--------|
| Radio | Rural | 124 | 4.5323 | -0.154 | 470 | 0.877 |
| | Urban | 348 | 4.5460 | | | |
| Television | Rural | 124 | 2.6210 | -15.892 | 470 | 0.001* |
| | Urban | 348 | 4.6868 | | | |
| Newspapers/Magazines | Rural | 124 | 1.4839 | -5.398 | 470 | 0.001* |
| | Urban | 348 | 2.1897 | | | |
| Billboards | Rural | 124 | 1.5484 | -7.141 | 470 | 0.001* |
| | Urban | 348 | 2.5805 | | | |
| Posters/Pamphlets | Rural | 124 | 1.3629 | -5.608 | 470 | 0.001* |
| | Urban | 348 | 2.0833 | | | |
| Conference/Presentation | Rural | 124 | 1.5806 | -3.992 | 470 | 0.001* |
| | Urban | 348 | 2.1552 | | | |
| Health Workers | Rural | 125 | 3.4240 | -0.539 | 471 | 0.590 |
| | Urban | 348 | 3.5210 | | | |
| Word of Mouth | Rural | 125 | 2.6560 | -3.115 | 471 | 0.0032 |
| | Urban | 348 | 3.2184 | | | |

*Significance Level= $P<0.05$

However, there is no statistically significant difference between respondents' location and their receipt of interventions on HIV/AIDS from radio ($t(470) = -0.154$, $P > 0.877$) or health workers ($t(471) = -0.539$, $P > 0.590$). The respondents in the rural areas as compared to their urban counterparts strongly disagree that they received social marketing intervention on HIV/AIDS from newspapers/magazines (mean=1.48), billboards (mean= 1.55) posters/pamphlets (mean=1.36), or conference/presentation (mean=1.58), whilst they are more likely to be neutral that they received social marketing intervention programmes from television (mean=2.62) or word of mouth (mean=2.66).

This suggests that the respondents in the rural areas mainly received social marketing interventions on HIV/AIDS from radio (mean= 4.53), whilst their urban counterparts generally received the intervention from radio (mean=4.55) and television (mean=4.69). Due to the poor road networks in rural Ghana, access to electricity, or weak TV signal, the respondents in rural areas are unable to access most medium (eg. newspapers, posters, conferences, health workers, etc) used in social marketing interventions on HIV/AIDS.

5.2.5 Action to Prevent HIV/AIDS New Infection

The result reveals that 99.2% of the respondents indicated that they can take some action(s) to avoid getting HIV/AIDS infection, whilst 0.8% indicated that they do not know if there is something they could do to protect themselves from getting HIV/AIDS infection (see table 5.35 in appendix 3). When respondents were further asked to indicate what they can do to avoid getting HIV/AIDS, the following responses emerged: abstain from sex before marriage (90.8%), use condom (88.9%), have only one sexual partner (84.5%), avoid sex with prostitutes (98.5%), avoid sex with homosexuals (97.5%), avoid kissing (57.7%), avoid blood transfusion from unauthorised facilities (97.9%), avoid mosquito bites (53.7%), avoid sharing blades and needles (95.4%). Only a minority of the respondents indicated that avoid shaking

hands with people living with HIV/AIDS (8.2%), avoid sitting close with a person living with HIV/AIDS (8.4%), and seeking protection from traditional healers or religious leaders (6.3%) could prevent one from getting HIV/AIDS infection.

Table 5.7: Respondents Knowledge on HIV/AIDS Protective Behaviours

| HIV Protective Behaviours | Awareness % | Unawareness % |
|--|-----------------------|-------------------------|
| Avoid sex with prostitutes | 98.5 | 1.5 |
| Avoid blood transfusion from unauthorised facilities | 97.9 | 2.1 |
| Avoid sex with homosexuals | 97.5 | 2.5 |
| Avoid sharing blades and needles | 95.4 | 4.6 |
| Abstain from sex before marriage | 90.8 | 9.2 |
| Use condom | 88.9 | 11.1 |
| Have only one sexual partner | 84.5 | 15.5 |
| Avoid kissing | 57.7 | 42.3 |
| Avoid mosquito bites | 53.7 | 46.3 |
| Avoid sitting close with a person living with HIV/AIDS | 8.4 | 91.6 |
| Avoid shaking hands with people living with HIV/AIDS | 8.2 | 91.8 |
| Seeking protection from traditional healers or religious leaders | 6.3 | 93.7 |

Table 5.7 ranks the behaviours toward the prevention of HIV/AIDS new infections. The result suggests that respondents’ knowledge on HIV/AIDS protective behaviours is very high. It is, however, worthy of note that majority of respondents believe kissing and mosquito bites could transmit HIV/AIDS and therefore, avoiding kissing and preventing mosquito bites could be a preventive measure.

To understand the relationship between respondents’ location/area of residents and their knowledge on HIV/AIDS protective behaviours, a cross-tabulation analysis was conducted. The result in table 5.8 shows that 97.7% of rural dwellers know about HIV/AIDS protective

behaviours compared to 99.7% of urban dwellers. Therefore, the urban respondents are more likely to know about HIV/AIDS protective behaviours than their rural counterparts. This is because the urban respondents are more exposed to social marketing interventions on HIV/AIDS than rural respondents.

Table 5.8: Respondents’ Awareness of Actions to prevent HIV by Location

| Variable | Rural | Urban | Total |
|-------------|-------|-------|-------|
| Awareness | 129 | 348 | 477 |
| | 97.7% | 99.7% | 99.2% |
| Unawareness | 3 | 1 | 4 |
| | 2.3% | 0.3% | 0.8% |
| Total | 132 | 349 | 481 |
| | 100% | 100% | 100% |

To determine the difference between rural and urban respondents observed in table 5.8, actually represent a real difference in the population as a whole, a chi-square test was undertaken. As presented in table 5.9, the result reveals that there is a weak ($\Phi=.098$) but statistically significant relationship ($P<0.032$) between respondents who reside in the urban and rural areas and their knowledge on what they could do to avoid getting HIV/AIDS new infection in Ghana.

Table 5.9: Chi-Square Tests: Urban and Rural Respondents and Knowledge on HIV/AIDS

| Pearson Chi-Square | Df | Asymp. Sig. (2-sided) | Nominal by Phi |
|--------------------|----|-----------------------|----------------|
| 4.582 ^a | 1 | .032* | -.098 |

Significant Level= $P<0.05$

5.2.6 Impact of Social Marketing Interventions on HIV/AIDS

Starting from this section, the mean score is compared to an assumed mean score of 2. When it is determined that the mean of a variable is close to 2 or less than 2 then, it means that

respondents agree with the statement. However, when the mean score is 4 or more, it means that the respondents disagree with the statement. When the mean score is 3, then it means that the respondents are neutral. To ascertain the impact of social marketing interventions on HIV/AIDS in Ghana, the research found out if respondents agree with the statement that social marketing intervention programmes on HIV/AIDS have influenced them to abstain from sex, stop all unprotected sex, start using condom, restrict sex to one partner, stop sharing blades/needles or test for HIV/AIDS. The result shows that majority of respondents agree that they have stopped all unprotected sex (57.1%), started using condoms (61.5%), restricted sex to one partner (74.9%) or stopped sharing blades and needles with others (98.1%). The majority of respondents however, disagree that they have gone for HIV/AIDS test (51.8%) or abstained from sex (91.6%) (see figures 5.2 to 5.7 in appendix 3).

A t-test result in table 5.10 however, shows that there is a statistically significant difference ($t(473) = 5.590, p < 0.001$) between male and female on whether or not they have gone for HIV/AIDS test. On the average, women are more likely to agree that they know their HIV status (mean=2.63) than men are (mean=3.59). This is because in Ghana, as part of antenatal care, all pregnant women who visit any health facility are tested for HIV/AIDS.

Table 5.10: Male and Female and whether they have gone for HIV/AIDS Test

| Gender | N | Mean | T-test | Df | Sig. |
|--------|-----|--------|--------|-----|--------|
| Male | 234 | 3.5983 | 5.590 | 473 | 0.001* |
| Female | 241 | 2.6390 | | | |

*Significant Level= $P < 0.05$

5.2.7 Normative Beliefs, Attitude, Personal Agency, Intention and Behavioural

Performance of Respondents

To determine the normative beliefs, attitude, personal agency and intentions of respondents, frequency distribution analysis was first conducted. The result indicates that 54.8% of the respondents disagree with the statement that there is practically no chance they could get HIV/AIDS. However, almost half of the respondents (42.6%) agree with the statement, whilst 2.5% of them were neutral (see table 5.30 in appendix 3). This means that a little more than half of the respondents' perceived susceptibility of getting HIV/AIDS is positive.

On normative belief of respondents, the research sought to find out if respondents see anything wrong with women buying or carrying condoms, whether buying condom is still an embarrassing experience and whether respondents believe that most of the people who are important to them think that doing one of the following is proper way to protect themselves against HIV/AIDS: condom use, abstinence, keeping to one sexual partner or going for HIV test. The result shows that only 35.5% of the respondents agree that a woman who is seen buying or carrying condom will not have a good image in the society. 63.7% disagree with the statement, whilst only 0.8% are neutral (see table 5.31 in appendix 3).

To understand the difference between rural and urban respondents and their perceptions on a woman who is seen buying or carrying condom, a t-test analysis was conducted. The result of the t-test as presented in table 5.11 shows that there is a statistically significant difference ($t(479) = -4.628, P < 0.001$) between rural and urban respondents and their perceptions toward a woman who is seen buying or carrying condom. On average, rural respondents are to some extent more likely to agree that a woman who is seen buying or carrying condoms is promiscuous in society (mean=2.62) than their urban counterparts who are more likely to disagree with the statement (mean=3.36). This is because respondents who live in the urban

areas are more exposed to social marketing interventions on HIV/AIDS and are less influenced by culture.

Table 5.11: Location of Respondents and their views on Women seen Buying or Carrying Condom

| Location of Respondents | N | Mean | T-test | Df | Sig. |
|-------------------------|-----|--------|--------|-----|--------|
| Rural | 132 | 2.6212 | -4.628 | 479 | 0.001* |
| Urban | 349 | 3.3582 | | | |

*Significant Level= $P<0.05$

Few of the respondents (36.6%) agree that buying condom is still an embarrassing experience these days. Majority of the respondents (60.9%) however, disagree with the statement, whilst only 2.5% were neutral (see table 5.32 in appendix 3). A t-test analysis was conducted to find out if there is a difference between genders and whether they perceive buying condom as an embarrassing experience. In table 5.12, the t-test result shows that there is a statistically significant difference ($t(479) = 6.030, P<0.001$) between genders and their attitude towards whether buying condom is an embarrassing experience. On average, men are more likely to disagree with the statement (mean 3.77) than women who are more likely to be neutral with the statement (mean=2.86). This is due to the normative restrictions on women in Ghana which prevent them from engaging in certain activities (eg. buying condom).

Table 5.12: Gender and their Perceptions on Buying Condom

| Gender | N | Mean | T-test | Df | Sig. |
|--------|-----|--------|--------|-----|--------|
| Male | 237 | 3.7722 | 6.030 | 479 | 0.001* |
| Female | 244 | 2.8648 | | | |

*Significant Level= $P<0.05$

Majority of the respondents (90.2%) agree that most of the people who are important to them think that using condom, abstinence, keeping to one sexual partner or going for HIV test are

proper ways of protecting themselves against HIV/AIDS. Only 2.3% of the respondents disagree with the statement, whilst 7.5% were neutral (see table 5.33 in appendix 3). This suggests that respondents' perceived/group norm favours social marketing recommendations on HIV/AIDS in Ghana.

On perceived severity of the disease, the research sought to find out whether respondents agree or disagree with the statement that getting infected with HIV/AIDS would be the worst thing that could ever happen to them. The result reveals that a little more than half of the respondents (58.8%) agree that HIV/AIDS is the most dangerous disease that could ever happen to them. Almost 40% however, do not see HIV/AIDS as the worse disease that could ever happen to them. They even perceived malaria as more dangerous than HIV/AIDS (see figure 5.8 in appendix 3).

To determine the self efficacy of the respondents, the research found out whether respondents agree with the statement that they are able to use condom without fumbling around to prevent HIV/AIDS new infection. It was insightful to find from the result that only 26.4% of the total respondents agree that they are able to use condom without fumbling around to prevent HIV/AIDS new infection, more than half of the respondents (52.8%) disagree with the statement with the reason that in many instances that they wear condom for protection against HIV/AIDS, it bursts, whilst 20.8% were uncertain as to their ability to use condom (see figure 5.9 in appendix 3).

On response efficacy of the respondents, the research sought to find out if respondents believe that condom use, abstinence or keeping to one sexual partner works in preventing HIV/AIDS new infections. The result in table 5.13a reveals that 55.8% of the respondents do not believe in condom as a means of protecting themselves from getting HIV/AIDS infection.

Only 42% of the respondents agree that condom use works in preventing HIV/AIDS infection.

Table 5.13a: Response Efficacy on Condom Use to Preventing HIV/AIDS.

| Level of Agreement | No. | % |
|--------------------|-----|------|
| Strongly Agree | 154 | 32 |
| Agree | 48 | 10 |
| Neutral | 11 | 2.3 |
| Disagree | 172 | 35.8 |
| Strongly Disagree | 96 | 20.0 |
| Total | 481 | 100 |

In table 5.13b, majority of the respondents (51.7%) disagree with the assertion that keeping to one sexual partner helps in preventing HIV/AIDS new infection, whilst less than half of the respondents (45.9%) agree with the statement. Only 2.3% of the respondents were neutral with the statement.

Table 5.13b: Response Efficacy on Keeping to one Sexual Partner to Prevent HIV/AIDS.

| Level of Agreement | No. | % |
|--------------------|-----|------|
| Strongly Agree | 168 | 34.9 |
| Agree | 53 | 11.0 |
| Neutral | 11 | 2.3 |
| Disagree | 142 | 29.5 |
| Strongly Disagree | 107 | 22.2 |
| Total | 481 | 100 |

In table 5.13c, an overwhelming majority of the respondents (97.1%) however, believe that abstinence works in preventing HIV/AIDS new infection and the rest (2.9%) either disagree with the statement or were neutral. This suggests that, respondents' response efficacy with regard to condom usage and keeping to one sexual partner as a means of preventing HIV/AIDS new infection is negative. However, their response efficacy with regard to

abstinence as a protective measure is very positive. Though, majority of the respondents believe in abstinence as the best method to prevent HIV/AIDS new infections, they indicated that they cannot abstain from sex (see figure 5.2 in appendix 3).

Table 5.13c: Response Efficacy on Abstinence to prevent HIV/AIDS.

| Level of Agreement | No. | % |
|--------------------|-----|------|
| Strongly Agree | 316 | 65.7 |
| Agree | 151 | 31.4 |
| Neutral | 5 | 1.0 |
| Disagree | 5 | 1.0 |
| Strongly Disagree | 4 | .8 |
| Total | 481 | 100 |

5.2.8 Environmental Factors Preventing HIV/AIDS Protective Behaviours

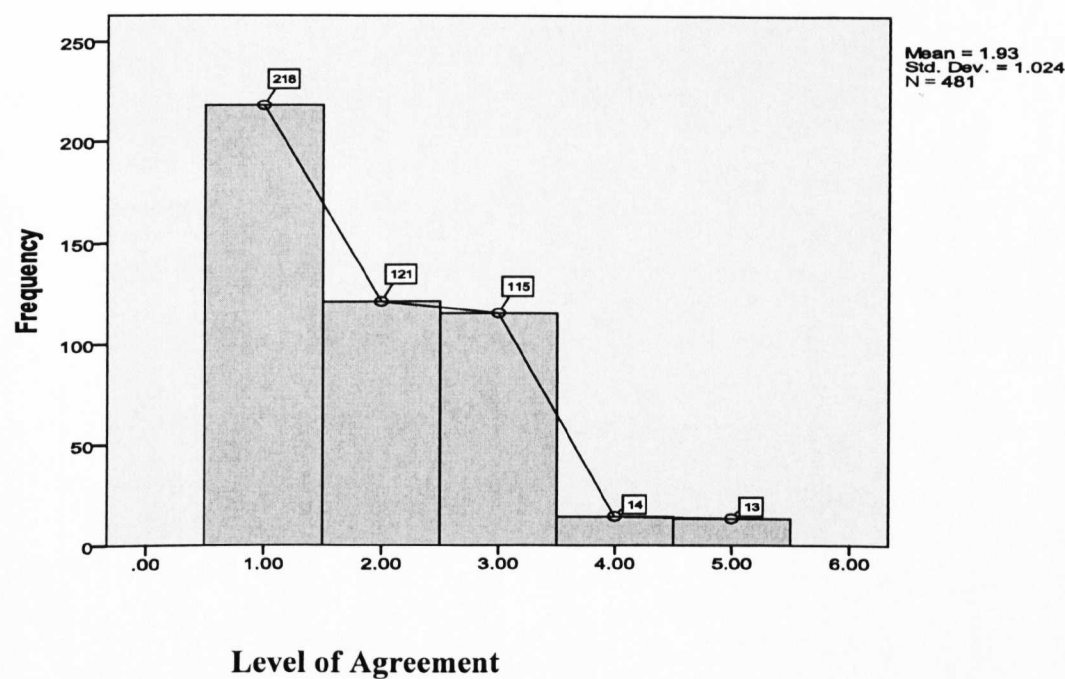
To ascertain the environmental factors that could prevent Ghanaians from adopting social marketing interventions on HIV/AIDS, respondents were asked to indicate whether they agree with the following statements:

- Because condom is affordable, I am able to buy them any time I want.
- It is very difficult to locate a facility to test for HIV/AIDS
- It is very difficult to locate a facility to buy condom.

The result reveals that majority of the respondents (65.3%) indicated that it is not difficult to locate a facility to test for HIV/AIDS, 32.2% however, think that it is very difficult to locate a facility to test for HIV/AIDS, whilst 2.5% of them were neutral (see Figure 5.10a in appendix 3). About 70% of the respondents think that it is easy to locate a facility to buy condom. They said that one can buy condom from any pharmacy and drug store. Only about 28% of the respondents assert that it is very difficult to locate a facility to buy condom (see figure 5.10b in appendix 3). Regarding the affordability of condom, figure

5.1 reveals that 339 respondents representing 70.5% agree that condom is very affordable, 27 representing 5.6% disagree with the statement, whilst 115 representing 23.9% did not know whether or not condom is affordable.

Figure 5.1: Affordability of Condom



5.2.8.1: Location of Respondents and their Views on Availability of Facilities to Buy
Condom or Test for HIV/AIDS

To understand if there is a difference between location of respondents and their views on the availability of condom, a t-test was conducted. In table 5.14, the result shows that there is a statistically significant difference ($t(479) = -51.017, P < 0.001$) between respondents in the urban and rural areas and their views on facilities to buy condom. On average, respondents in the rural areas are strongly inclined to agree that it is difficult to locate an outlet to buy

condom (mean=1.23) than respondents in the urban areas (mean=4.67). This is because outlets from where respondents could buy condoms are located in the urban areas.

Table 5.14: Respondents’ Location and Availability of Facilities to Buy Condom or Test for HIV/AIDS

| Variable | Location of Respondents | N | Mean | t-test | Df | Sig. |
|----------|-------------------------|-----|--------|---------|-----|--------|
| Condom | Rural | 132 | 1.2273 | -51.017 | 479 | 0.001* |
| | Urban | 349 | 4.6676 | | | |
| Test | Rural | 132 | 1.2500 | -31.274 | 479 | 0.001* |
| | Urban | 349 | 4.2837 | | | |

*Significant Level=P<0.05

The result of the t-test further shows that there is a statistically significant difference (t (479) =-31.274, P< 0.001) between respondents who reside in rural and urban areas and their views on difficulty in locating a facility to test for HIV/AIDS. On average, respondents in rural areas are to some extent more strongly inclined to agree with the statement that it is difficult to locate a facility to test for HIV/AIDS (mean=1.25) than respondents in the urban areas who are more likely to disagree with the statement (mean=4.28). The difference in mean scores of rural and urban respondents on the statement may due to the fact that access to facilities to test for HIV/AIDS is better in the urban centres in Ghana.

5.2.9 Intention to Perform HIV/AIDS Protective Behaviours

The research sought to find out if the respondents have formed an intention to perform HIV/AIDS protective behaviour(s). The result indicates that majority of the respondents (80.6%) have formed an intention to protect themselves against HIV/AIDS, whilst about 19% have no intention of protecting themselves against HIV/AIDS, and less than 1%, was not sure whether or not they have formed an intention to protect themselves against HIV/AIDS (see

figure 5.11a in appendix 3). Specifically, 57.1% said they have formed an intention to go for HIV test but, 41.8% indicated that they have no intention to go for HIV/AIDS test for fear of dying early from shock if diagnosed positive (see figure 5.11b in appendix 3). The result reveals that 69.2% have intention to buy or use condom to protect themselves, but, about 30% have no intention of buying or using condom to protect themselves against HIV/AIDS (see figure 5.11d in appendix 3). The result on intention to perform HIV/AIDS protective behaviours finally reveals that 92.1% of the respondents have formed an intention to keep to one sexual partner to protect themselves against HIV/AIDS (see figure 5.11c in appendix 3).

On behavioural performance, the research found out if respondents have actually taken action to perform HIV/AIDS protective behaviour in the last six months. It was found that 81.5% of the respondents in the last 6 months have kept to one sexual partner to protect themselves against HIV/AIDS (see table 5.34a in appendix 3). However, in the last 6 months, majority of the respondents (81.3%) have not gone for HIV/AIDS test. Only 18.7% have gone for HIV/AIDS test in the last six months (see table 5.34b in appendix 3).

An ANOVA analysis was conducted to find out whether there is a significant difference between marital status and their actions to use condom to protect themselves against HIV/AIDS. The result in table 5.15 reveals that on the average, the respondents are of the view that they use condom to protect themselves against HIV/AIDS (mean=2.69, SD=1.793). The result shows a statistically significant difference ($F=14.270$, $P<0.001$) between respondents marital status and their action to use condom to protect themselves against HIV/AIDS. On average, the respondents who are in co-habitation (mean=1.33, SD=0.577) and single (mean=2.08, SD=1.529) are more likely to use condom than their counterparts who are married (mean=3.26, SD=1.852), Divorced (mean=3.08, SD=1.891), or widowed (mean=3.00, SD=1.633). This suggests that people who are married or have once

married do not see the need to use condom. This is because in Ghana, an attempt to use condom with your partner may suggest that you do not trust him/her or you are being unfaithful.

Table 5.15: Respondents’ Marital Status and Action to Use Condom

| Marital Status | Mean | SD | F ratio | Sig. |
|----------------|--------|---------|---------|--------|
| Single | 2.0848 | 1.52907 | 14.270 | 0.001* |
| Married | 3.2632 | 1.85155 | | |
| Divorced | 3.0769 | 1.89128 | | |
| Widowed | 3.0000 | 1.63299 | | |
| Co-habitation | 1.3333 | 0.57735 | | |
| Total | 2.6863 | 1.79325 | | |

*Significant Level= $P<0.05$

The next section tests the hypotheses formulated for the study.

5.3 Hypotheses Testing

This section tests the various hypotheses which have been formulated for the study. These hypotheses were formulated based on the review of the literature in the subject area.

Hypothesis 1: there will be no significant difference between respondents’ current level of education and their susceptibility towards HIV/AIDS pandemic.

An ANOVA analysis was conducted to determine whether there is a significant difference between respondents’ current level of education and their perceived susceptibility towards HIV/AIDS pandemic. The result in table 5.16 reveals that on the average, the respondents are of the impression that there is practically no chance they could contract HIV/AIDS (mean=2.62, SD=1.574). Therefore, their perceived susceptibility to HIV/AIDS is negative.

Table 5.16: Respondents' Current Level of Education and Susceptibility towards HIV/AIDS Pandemic

| Level of Education | Mean | SD | F ratio | Sig. |
|------------------------|--------|---------|---------|--------|
| No Formal Education | 2.2063 | 1.43862 | 3.977 | 0.003* |
| Primary Education | 2.4458 | 1.55589 | | |
| JHS Education | 2.5161 | 1.55694 | | |
| SHS/A 'Level Education | 2.9457 | 1.59920 | | |
| Tertiary Education | 3.1053 | 1.60005 | | |
| Total | 2.6154 | 1.57444 | | |

*Significance Level= P<0.05

In table 5.16, ANOVA result shows a statistically significant difference (F=3.977, P<0 .003) between respondents' current level of education and their perceived susceptibility to HIV/AIDS. The respondents with tertiary education (mean=3.10, SD=1.600) are more likely to be neutral about their perceived susceptibility to HIV/AIDS and the most sceptical are respondents with no formal education (mean=2.21, SD=1.439). All other respondents are on average between agreeing that there is practically no change they could get HIV/AIDS and neutral. This is because respondents with no formal education are unable to receive and synthesise social marketing interventions on HIV/AIDS as compared to their counterparts who are educated.

In table 5.17, ANOVA result further reveals that there is statistically significant difference between respondents with no formal education and respondents with SHS/A' Level education (P<0.038) and tertiary education (P<0.017) in their perceived susceptibility to HIV/AIDS. This is because respondents with SHS/A 'Level and tertiary education are in the position to receive and synthesise social marketing interventions on HIV/AID better than their counterparts with no formal education. Therefore, the null hypothesis is rejected.

Table 5.17: Multiple Comparisons of Levels of Education

| (I) Respondents Current or highest level of Education | (J) Respondents Current or highest level of Education | Mean Difference (I- J) | Std. Error | Sig. |
|---|---|------------------------------|---------------|-------|
| No formal education | Primary education | -.23943 | .25988 | 1.000 |
| | JHS Education | -.30978 | .22671 | 1.000 |
| | SHS/A' Level education | -.73930* | .25433 | .038* |
| | Tertiary Education | -.89891* | .28431 | .017* |
| Primary education | No formal education | .23943 | .25988 | 1.000 |
| | JHS Education | -.07035 | .20530 | 1.000 |
| | SHS/A' Level education | -.49987 | .23545 | .343 |
| | Tertiary Education | -.65948 | .26754 | .141 |
| JHS Education | No formal education | .30978 | .22671 | 1.000 |
| | Primary education | .07035 | .20530 | 1.000 |
| | SHS/A' Level education | -.42952 | .19823 | .307 |
| | Tertiary Education | -.58913 | .23546 | .127 |
| SHS/A' Level education | No formal education | .73930* | .25433 | .038* |
| | Primary education | .49987 | .23545 | .343 |
| | JHS Education | .42952 | .19823 | .307 |
| | Tertiary Education | -.15961 | .26216 | 1.000 |
| Tertiary Education | No formal education | .89891* | .28431 | .017* |
| | Primary education | .65948 | .26754 | .141 |
| | JHS Education | .58913 | .23546 | .127 |
| | SHS/A' Level education | .15961 | .26216 | 1.000 |

Hypothesis 2: there will be no significant difference between age groups of respondents and their perceived behavioural control (self efficacy).

An ANOVA analysis was conducted to determine whether there is a statistically significant difference between respondents' age groups and whether they are able to use condom without fumbling around to prevent HIV/AIDS new infection (perceived behavioural control). In table 5.18, the result indicates that on the average, the respondents were not sure whether or not they have the ability to use condom properly (mean=3.31, SD=1.375). ANOVA result

reveals that there is no statistically significant difference ($F=0.146$, $P> 0.932$) between respondents' age groups and their ability to use condom to prevent HIV/AIDS new infections. This means that, all respondents irrespective of their age groups have the same perceived behavioural control when it comes to condom usage. Therefore, the null hypothesis is accepted.

Table 5.18: Respondents' Age Group and Perceived Behavioural Control (Self Efficacy)

| Age | Mean | SD | F ratio | Sig. |
|-------|--------|---------|---------|-------|
| 18-24 | 3.3151 | 1.37341 | 0.146 | 0.932 |
| 25-30 | 3.2577 | 1.38149 | | |
| 31-40 | 3.3190 | 1.40557 | | |
| 41-50 | 3.3929 | 1.35752 | | |
| Total | 3.3056 | 1.37486 | | |

*Significance Level= $P<0.05$

Hypothesis 3: there will be no significant difference between age groups of respondents and their perceived norms.

An ANOVA analysis was conducted to determine whether there is a statistically significant difference between respondents' age groups and their perceived norms. The result shows that on average, the respondents are of the impression that most people who are important to them think that doing one or more of the following is proper way to protect themselves against AIDS: condom use, abstinence, keeping to one sexual partner or going for HIV test (mean= 1.67, SD=0.729). In table 5.19, ANOVA result reveals that there is no statistically significant difference ($F=1.014$, $p>0.386$) between respondents age groups and their subjective norms on condom usage, abstinence, and keeping to one sexual partner or going for HIV/AIDS test. This suggests that all respondents irrespective of their age groups have the same perceived norms on condom usage, abstinence, keeping to one sexual partner or going for HIV/AIDS test. Therefore, the null hypothesis is accepted.

Table 5.19: Age Group of Respondents and Subjective Norms

| Age | Mean | SD | F ratio | Sig. |
|-------|--------|---------|---------|-------|
| 18-24 | 1.7123 | 0.70426 | 1.014 | 0.386 |
| 25-30 | 1.5951 | 0.75062 | | |
| 31-40 | 1.6983 | 0.74856 | | |
| 41-50 | 1.7500 | 0.69413 | | |
| Total | 1.6736 | 0.72995 | | |

*Significant Level= $P < 0.05$

Hypothesis 4: there will be no relationship between respondents’ intention to perform HIV-protective behaviour and their perceived susceptibility towards the disease.

A correlation analysis was conducted to understand if there is a relationship between respondents’ intention to perform HIV-protective behaviour and their perceived susceptibility towards the disease. In table 5.20, the result reveals that there is no significant ($P > 0.174$) relationship between respondents intention to test for HIV/AIDS and their perceived susceptibility of getting HIV/AIDS. This means that the null hypothesis that there will be no relationship between respondents’ intention to perform HIV-protective behaviour and their perceived susceptibility towards the disease is accepted.

Table 5.20: Correlations between Intention and Perceived Susceptibility

| | | Intention | Perceived Susceptibility |
|--------------------------|-------------------------|-----------|--------------------------|
| Intention | Correlation Coefficient | 1 | -.062 |
| | Sig. (2-tailed) | | .174 |
| Perceived Susceptibility | Correlation Coefficient | -.062 | 1 |
| | Sig. (2-tailed) | .174 | |

* Correlation is significant at the 0.01 level (2-tailed).

Hypothesis 5: there will be no relationship between respondents’ performance of HIV-protective behaviour and their perceived severity towards the disease.

To understand the relationship between respondents’ performance of HIV protective behaviour and their perceived severity of the disease, a correlation analysis was conducted. In table 5.21, the result indicates that there is a statistically significant relationship ($r=.138$, $P<0.003$) between respondents perceived seriousness of HIV/AIDS and their action to stop sharing blades/needles to protect themselves against the disease. The relationship is positive, so we can say that as perceived severity of respondents’ increases, there is some tendency that respondents’ agreement to stop sharing blades/needles to protect themselves against HIV/AIDS increases. Therefore, the null hypothesis is rejected.

Table 5.21: Correlations between Performance of HIV-Protective Behaviour and Perceived Severity.

| | | Perceived Severity | Behavioural Performance |
|-------------------------|-------------------------|--------------------|-------------------------|
| Perceived Severity | Correlation Coefficient | 1 | .138** |
| | Sig. (2-tailed) | | .003* |
| Behavioural Performance | Correlation Coefficient | .138** | 1 |
| | Sig. (2-tailed) | .003* | |

* Correlation is significant at the 0.01 level (2-tailed).

Hypothesis 6: there will be no significant difference between males and females and their decision to use condom to protect themselves against HIV/AIDS.

A t-test analysis was conducted to understand if there is a difference between males and females and their decision to use condom to protect themselves against HIV/AIDS. In table 5.22, the result shows that there is a statistically significant difference ($t(479) = 6.939$, $P<0.01$) between males and females and their intentions to buy/use condom to avoid stigmatisation. On average, men are strongly inclined to disagree with the statement (mean=4.02) than females who are neutral (mean=3.04). This means that men are more likely to buy/use condom than females who fear to be stigmatised or labelled as prostitute if they

decide to buy or use condom to protect themselves against HIV/AIDS infection. Female respondents are more likely to be neutral because in Ghana women are not likely to share their views on condom usage in public otherwise, they might be tagged as prostitutes. This confirms the result in table 5.12 which reveals that women perceive buying condom as an embarrassing experience. Therefore, the null hypothesis is rejected.

Table 5.22: Gender and Intention to use Condom

| Gender | N | Mean | T-test | Df | Sig. |
|--------|-----|--------|--------|-----|--------|
| Male | 237 | 4.0211 | 6.939 | 479 | 0.001* |
| Female | 244 | 3.0451 | | | |

*Significant Level= P<0.05

Hypothesis 7: there will be no relationship between respondents’ performance of HIV-protective behaviour and their response efficacy towards interventions on the pandemic.

A correlation analysis was conducted to test the hypothesis which states that “there will be no relationship between respondents’ performance of HIV-protective behaviour and their response efficacy towards social marketing interventions on the pandemic”. In table 5.23a, the result reveals that there is a statistically significant relationship ($r = .145$, $P < 0.001$) between respondents belief in social marketing recommendations on HIV/AIDS (keeping to one sexual partner works in preventing HIV/AIDS new infection) and their action to restrict sex to one partner. Since relationship is positive, we can conclude that as respondents believe in social marketing recommendations to restrict sex to one sexual partner increases, there is some propensity that respondents’ agreement to restrict sex to one partner increases as well. Therefore, the null hypothesis is rejected.

Table 5.23a: Correlations between Performance of HIV-Protective Behaviour and Response Efficacy

| | | Behavioural Performance | Response Efficacy |
|-------------------------|-------------------------|-------------------------|-------------------|
| Behavioural Performance | Correlation Coefficient | 1 | .145** |
| | Sig. (2-tailed) | | .001* |
| Response Efficacy | Correlation Coefficient | .145** | 1 |
| | Sig. (2-tailed) | .001* | |

*Correlation is significant at the 0.01 level (2-tailed).

In table 5.23b, the correlation result further reveals that there is a statistically significant relationship ($r=-.126$, $P<0.006$) between respondents' belief in abstinence as a way of protecting oneself from HIV/AIDS new infection and their ability to abstain from sex. Since the relationship is negative, we can say that as people believe in abstinence as means of avoiding HIV/AIDS infection increases, their action to abstain from sex decreases. This may be due to the fact that even though most people do believe in abstinence as a means of protecting themselves against HIV/AIDS infection, their response efficacy has not been translated into action to abstain from sex. This is because most respondents indicated that they cannot abstain from sex. Therefore, the null hypothesis is rejected.

Table 5.23b: Correlations between Performance of HIV-Protective Behaviour and Response Efficacy.

| | | Response Efficacy | Behavioural Performance |
|-------------------------|-------------------------|-------------------|-------------------------|
| Response Efficacy | Correlation Coefficient | 1 | -.126** |
| | Sig. (2-tailed) | | .006* |
| Behavioural Performance | Correlation Coefficient | -.126** | 1 |
| | Sig. (2-tailed) | .006* | |

* Correlation is significant at the 0.01 level (2-tailed).

In table 5.23c, the correlation result under hypothesis 7 finally reveals that there is a statistically significant relationship ($r=-.129$, $P<0.005$) between respondents' belief in condom use as a measure of protecting oneself against HIV/AIDS new infection and their

action to use condom. The relationship is negative, so we can say that as belief in condom use decreases condom used could be increase. This means that respondents use condom for reasons that might not relate to the efficacy of condom as a means of avoiding HIV/AIDS new infection. Sometimes respondents may use condom to satisfy their sexual partners who demand the use of condom. Therefore, the null hypothesis is rejected.

Table 5.23c: Correlations between Performance of HIV-Protective Behaviour and Response Efficacy.

| | | Response Efficacy | Behavioural Performance |
|-------------------------|-------------------------|-------------------|-------------------------|
| Response Efficacy | Correlation Coefficient | 1 | -.129** |
| | Sig. (2-tailed) | | .005* |
| Behavioural Performance | Correlation Coefficient | -.129** | 1 |
| | Sig. (2-tailed) | .005* | |

*Correlation is significant at the 0.01 level (2-tailed).

Hypothesis 8: there will be no relationship between respondents’ HIV-protective behaviour performance and their intention to perform the behaviour.

A correlation analysis was conducted to establish if there is a relationship between respondents’ HIV-protective behaviour performance and their intentions to perform the behaviour. In table 5.24a, the result shows that there is a statistically significant relationship ($r=.317$, $P< 0.001$) between respondents intention to test for HIV/AIDS to know their status and their action in the last six month to test for HIV/AIDS. Since the relationship is positive, we can conclude that as intention to test for HIV/AIDS increases, there is the likelihood that the respondents will go for HIV/AIDS test to know their status. Therefore, the null hypothesis is rejected.

Table 5.24a: Correlations between Performance of HIV-Protective Behaviour and Intention

| | | Intention | Behavioural Performance |
|-------------------------|-------------------------|-----------|-------------------------|
| Intention | Correlation Coefficient | 1 | .317** |
| | Sig. (2-tailed) | | .000* |
| Behavioural Performance | Correlation Coefficient | .317** | 1 |
| | Sig. (2-tailed) | .000* | |

* Correlation is significant at the 0.01 level (2-tailed).

As indicated in table 5.24b, the correlation result under hypothesis 8 also reveals that there is a statistically significant ($r=.502$, $P<0.001$) relationship between respondents' intention to keep to one sexual partner to protect themselves against HIV/AIDS and their actions in the last six months to keep to one sexual partner. Since the relationship is positive, it can be concluded that as intention of respondents to keep to one sexual partner increases, there is some tendency that respondents are more likely to take action to keep to one sexual partner. Therefore, the null hypothesis is rejected.

Table 5.24b: Correlations between Performance of HIV-Protective Behaviour and Intention

| | | Intention | Behavioural Performance |
|-------------------------|-------------------------|-----------|-------------------------|
| Intention | Correlation Coefficient | 1 | .502** |
| | Sig. (2-tailed) | | .000* |
| Behavioural Performance | Correlation Coefficient | .502** | 1 |
| | Sig. (2-tailed) | .000* | |

*Correlation is significant at the 0.01 level (2-tailed).

Hypothesis 9: there will be no relationship between respondents’ HIV-protective behavioural performance and their skills and abilities.

To understand if there is a relationship between respondents’ HIV- protective behavioural performance and their skills or abilities to perform the behaviour, a correlation analysis was conducted. In table 5.25, the result reveals that there is a statistically significant relationship ($r=.304$, $P<0.001$) between respondents ability to use condom and their action to use condom to protect themselves against HIV/AIDS. Since the relationship is positive, we can conclude that as respondents’ abilities or skills to use condom increases, there is some tendency that respondents’ use of condoms will also increase. Therefore, the null hypothesis is rejected.

Table 5.25: Correlations between Performance of HIV-Protective Behaviour and Skills/Abilities

| | | Behavioural Performance | Skills/Abilities |
|-------------------------|-------------------------|-------------------------|------------------|
| Behavioural Performance | Correlation Coefficient | 1 | .304** |
| | Sig. (2-tailed) | | .001* |
| Skills/Abilities | Correlation Coefficient | .304** | 1 |
| | Sig. (2-tailed) | .001* | |

*Correlation is significant at the 0.01 level (2-tailed).

Hypothesis 10: there will be no relationship between respondents’ HIV-protective behavioural performance and other environmental factors.

The research sought to understand if there is a relationship between respondents’ HIV- protective behavioural performance and environmental factors. The correlation result in table 5.26a reveals that there is a statistically significant relationship ($r=-.178$, $P<0.001$) between respondents’ locating a facility to test for HIV/AIDS and those who have gone for HIV/AIDS testing. Since the relationship is negative, we can conclude that as it becomes more difficult for respondents to locate a facility to test for HIV/AIDS, there is the likelihood that few of respondents will go for the test. In other words, the less respondents find it difficult to locate

a facility to test for HIV/AIDS, the more likely they will go for the testing. Therefore, the null hypothesis is rejected.

Table 5.26a: Correlations between Performance of HIV-Protective Behaviour and Environmental Factors

| | | Behavioural Performance | Environmental factors |
|-------------------------|-------------------------|-------------------------|-----------------------|
| Behavioural Performance | Correlation Coefficient | 1 | -.178** |
| | Sig. (2-tailed) | | .001* |
| Environmental factors | Correlation Coefficient | -.178** | 1 |
| | Sig. (2-tailed) | .001* | |

*Correlation is significant at the 0.01 level (2-tailed).

In table 5.26b, the analysis under hypothesis 10 also indicates that there is a statistically significant relationship ($r=-.308$, $P<0.001$) between respondents difficulty in locating a facility to buy condom and their actions to use condom. Since the relationship is negative, we can conclude that as respondents find it more difficult to locate a facility to buy condom, there is a greater probability that they will not buy/use condom to protect themselves against HIV/AIDS. Therefore, the null hypothesis is rejected.

Table 5.26b: Correlations between Performance of HIV-Protective Behaviour and Environmental Factors.

| | | Behavioural Performance | Environmental factors |
|-------------------------|-------------------------|-------------------------|-----------------------|
| Behavioural Performance | Correlation Coefficient | 1 | -.308** |
| | Sig. (2-tailed) | | .001* |
| Environmental factors | Correlation Coefficient | -.308** | 1 |
| | Sig. (2-tailed) | .001* | |

*Correlation is significant at the 0.01 level (2-tailed).

Hypothesis 11: there will be no relationship between respondents’ intentions to perform HIV-protective behaviours and their attitudes towards performing the behaviour.

A correlation analysis was conducted to find out if there is a relationship between respondents’ intention to perform HIV-protective behaviours and their attitudes toward performing the behaviour. In table 5.27, the result reveals that there is a statistically significant relationship ($r=-.137$, $P<0.003$) between respondents’ attitude towards HIV/AIDS and their intentions to test for HIV/AIDS. Since the relationship is negative, we can say that respondents’ positive attitude towards dangers in contracting HIV/AIDS has not influenced their HIV/AIDS testing intentions. Therefore, the null hypothesis is rejected.

Table 5.27: Correlations between Intention to Perform HIV-Protective Behaviour and Attitude.

| | | Intention | Attitude |
|-----------|-------------------------|-----------|----------|
| Intention | Correlation Coefficient | 1 | -.137** |
| | Sig. (2-tailed) | | .003* |
| Attitude | Correlation Coefficient | -.137** | 1 |
| | Sig. (2-tailed) | .003* | |

*Correlation is significant at the 0.01 level (2-tailed).

Hypothesis 12: there will be no relationship between respondents’ intentions to perform HIV-protective behaviours and their perceived norms concerning performance of the behaviour.

A correlation analysis was conducted to find the relationship between respondents’ intention to perform HIV-protective behaviours and their subjective norms concerning performance of the behaviour. In table 5.28, the result discloses that there is a statistically significant relationship ($r=.140$, $P<0.002$) between respondents’ subjective norms concerning social

marketing recommendations on HIV/AIDS and their intentions to adopt the recommendations. Since the relationship is positive, we can conclude that as respondents' subjective norms favour social marketing recommendation on AIDS, there is some tendency that respondents will form an intention to protect themselves against HIV/AIDS new infections. Therefore, the null hypothesis is rejected.

Table 5.28: Correlations between Intention to Perform HIV-Protective Behaviour and Subjective Norms.

| | | Subjective Norms | Intention |
|------------------|-------------------------|------------------|-----------|
| Subjective Norms | Correlation Coefficient | 1 | .140** |
| | Sig. (2-tailed) | | .002* |
| Intention | Correlation Coefficient | .140** | 1 |
| | Sig. (2-tailed) | .002* | |

*Correlation is significant at the 0.01 level (2-tailed).

Hypothesis 13: there will be no relationship between respondents' intentions to perform HIV-protective behaviours and their self-efficacy with respect to performing the behaviour.

A correlation analysis was conducted to find out if there is a relationship between respondents' intention to perform HIV/AIDS-protective behaviours and their self-efficacy with respect to performance of the behaviour. In table 5.29, the result shows that there is a statistically significant relationship ($r=-.167$, $P<0.001$) between respondents' intention of buying/using condoms and their ability to use condom (self efficacy). The relationship is negative, so we can say that as the intention of respondents not to use condom increases, there is the tendency that they would have less ability to use a condom. In other words, the more the respondents improve on their ability to use condom, the less they will form an intention not to buy or use condom to protect themselves against HIV/AIDS. Therefore, the null hypothesis is rejected.

Table 5.29: Correlations between Intentions to Perform HIV-protective Behaviours and Self-efficacy

| | | Self Efficacy | Intention |
|---------------|-------------------------|---------------|-----------|
| Self Efficacy | Correlation Coefficient | 1 | -.167** |
| | Sig. (2-tailed) | | .001* |
| Intention | Correlation Coefficient | -.167** | 1 |
| | Sig. (2-tailed) | .001* | |

*Correlation is significant at the 0.01 level (2-tailed).

5.4 Summary of Quantitative Results

The quantitative results reveal that majority of respondents were between 18-30 age group and had education up to junior high school, 46.8% were single, whilst 48.2% were married with only 5% either divorced, widowed, or cohabitated. Overwhelming majority of respondents (92.3%) were Christians, and 54.1% and 31.2% were from Ga/Dangme and Akan tribes respectively. The socio-demographic results show that 44.1% were from Lower Manya district, 55.9% from Fanteakwa district and majority (72.6%) were from urban areas. The research shows that almost all the respondents (98.1%) have seen or heard social marketing interventions on HIV/AIDS and 72.8% of them have seen or heard the interventions for more than five years. A chi-square results reveal that there is no statistically significant relationship ($P>0.334$) between respondents gender and awareness of social marketing intervention programmes on HIV/AIDS. However, there is a statistically significant relationship ($p<.001$) between respondents who are in the rural areas and their urban counterparts. Majority of the respondents indicated that they heard interventions on HIV/AIDS on radio, TV, from health workers, and through word-of-mouth.

The results show that social marketing interventions on HIV/AIDS have mainly influenced respondents to stop all unprotected sex (57.1%), start using condoms (61.5%), restrict sex to one partner (74.9%) and stop sharing blades and needles with others (98.1%). However, it was surprising to find that only 26.4% of the total respondents are able to use condom

properly to prevent HIV/AIDS new infections. On response efficacy of social marketing recommendations on HIV/AIDS, majority of the respondents do not believe in condom use and keeping to one sexual partner as an HIV/AIDS preventive measure. Majority, however, believe in abstinence but they are unable to abstain.

Testing of hypotheses formulated for the study reveals that: (1) there is statistically significant difference between respondents' current level of education and their susceptibility towards HIV/AIDS pandemic, (2) there is no statistically significant difference between age groups of respondents and their perceived behavioural control (self efficacy), (3) there is no statistically significant difference between age groups of respondents and their subjective norms, (4) there is no statistically significant relationship between respondents' intention to perform HIV-protective behaviour and their perceived susceptibility towards the disease, (5) there is a statistically significant relationship between respondent's HIV-protective behaviour performance and their perceived severity of the disease, (6) there is a statistically significant difference between males and females and their decision to use condom to protect themselves against HIV/AIDS, (7) there is a statistically significant relationship between respondents' performance of HIV-protective behaviour and their response efficacy towards interventions on the pandemic, (8) there is a statistically significant relationship between respondent's HIV-protective behaviour performance and their intention to perform the behaviour, (9) there is a statistically significant relationship between respondents' HIV-protective behavioural performance and their skills and abilities, (10) there is a statistically significant relationship between respondents' HIV-protective behavioural performance and environmental factors, (11) there is statistically significant relationship between respondents' intention to perform HIV-protective behaviours and their attitudes toward performing the behaviour, (12) there is a statistically significant relationship between respondents' intention to perform HIV-

protective behaviours and their perceived norms concerning performance of the behaviour, and (13) there is a statistically significant relationship between respondents' intention to perform HIV-protective behaviours and their self-efficacy with respect to performing the behaviour. The succeeding chapter discusses the various findings of the research in line with previous studies in the subject area.

Chapter 6

Discussion of Results

6.0: Introduction

The previous chapter provides analysis for both qualitative and quantitative data collected from the institutions charged with the responsibilities of developing and implementation of social marketing intervention programmes on HIV/AIDS, and 481 respondents from Lower Manya and Fanteakwa districts in the Eastern Region of Ghana. This chapter discusses the various findings of the research in line with previous studies in the subject area. The Integrative Behaviour Model (IBM) provides a theoretical basis from which to understand behaviour and identify specific beliefs to target (Montano and Kasprzyk, 2008). Irrespective of the numerous applications of IBM to social marketing interventions on HIV/AIDS, little (if any) empirical research has been conducted on the Model, especially on its application to HIV/AIDS prevention in Ghana. This research, therefore, seeks to understand how the Integrative Behaviour Model could be employed to design effective social marketing campaigns for HIV/AIDS preventions in Ghana. This chapter discusses the results of qualitative and quantitative analysis respectively and concludes with the similarities and differences of the research findings.

6.1: Discussions of Qualitative Research Results

This section discusses qualitative research results in line with previous research in social marketing.

6.1.1: The Objectives of Social Marketing Interventions on HIV/AIDS in Ghana

As presented at page 171 in chapter 5, all the respondents from the three institutions interviewed indicated that the objectives of social marketing interventions on HIV/AIDS in Ghana are mainly to: (i) provide testing and counselling facilities and encourage people to know their HIV/AIDS status, (ii) encourage condom usage, (iii) reduce stigmatisation and discrimination among people living with HIV/AIDS, (iv) prevent mother-to-child transmission and (v) promote abstinence and faithfulness to one mutual partner, and create awareness on antiretroviral therapy. These findings are consistent with previous research which states that social marketing provides a strategic planning framework comprising consumer research, segmentation and targeting, objectives setting and manipulation of the marketing mix (McFadyen et al., 2003). Niblett (2005) concludes that the goal of social marketing programmes is not to run advertising or communications campaigns, but the ultimate goal is to effect behaviour change or create action that leads to social change. Based on the conclusions and findings above, the author argues that the implementers of social marketing intervention programmes on HIV/AIDS in Ghana are in the right direction for identifying the behavioural goals they seek to achieve with their interventions

All the directors interviewed share the same opinion that revealed that the major challenge confronting them is how to get people to know their HIV/AIDS status. This collaborates with the work of Strand et al. (2004) which conclude that social marketers are good at delivering ideas, creating awareness and positive attitudes and developing branding and position. However, there is a huge disconnect in converting this increased awareness and attitude change into behaviour change. Kotler and Lee (2008) by using HIV/AIDS as an example, argue that downstream social marketers focus on decreasing risky behaviours (e.g. unprotected sex) and increasing timely testing (e.g. going for HIV test). They further argue

that if social marketers who are involved in HIV/AIDS interventions move their attention upstream, they would identify groups, organisations, corporations, community leaders, and policy makers that could make this change a little easier or a fairly likely. Andreasen (2006) indicates that in this 21st century, an audience-centred social marketer thinks that if an intervention is not successful, it is not the target audience's fault. It is quite probable that the social marketer does not understand the audience well enough to create effective strategies. Based on the above findings, the author posits that implementers of social marketing interventions on HIV/AIDS in Ghana must take steps to understand why the targeted population have not taken action to know their HIV status. The next section discusses findings on segmentation and targeting in social marketing.

6.1.2: Segmenting and Targeting of Social Marketing Intervention programmes on HIV/AIDS

Regarding the targeting of social marketing intervention programmes, the result reveals that all the implementers of social marketing intervention programmes on HIV/AIDS target the entire Ghanaian population. Though four of the directors interviewed recognise the difference in prevalence among some groups and districts in Ghana, they do not design tailor-made intervention strategies/programmes for any particular group with the explanation that they do not identify any significant difference among Ghanaians. When probed further whether the implementers intend to design tailor-made interventions for areas with high HIV/AIDS prevalence, majority indicated that they have no intention of doing that. This confirms the research findings of McDermott et al., (2005) which conclude that the key defining features of social marketing approach - which include identifying a clear target group and tailoring the approach to match their requirements, removing the competition to behaviour change and

emphasising the benefits - were often missing in most social marketing programmes. However, the findings of this research are inconsistent with the benchmarks of social marketing which indicate that mass approaches are often ineffective because they must inevitably be too broad to speak to anyone in any great specificity (Andreasen, 1995). Whilst segmentation in commercial marketing is based on choosing primary target market segments that will provide the greatest volume of profitable sales, social marketing segments selection are based on different criteria, including prevalence of the social problem and ability to reach the audience (Kotler and Lee, 2008). This explains why donors of social marketing intervention programmes on HIV/AIDS in Ghana are no longer interested in sponsoring generalised interventions; rather they commit the implementers into what they consider to be priority areas.

Regarding research findings to design effective social marketing intervention programmes on HIV/AIDS, the result indicates that most implementers utilise research findings to help them know what is happening in terms of the epidemiology; how many people are infected between the general population, who is being infected, what is the source of the infection and what are the barriers to change - for instance, what is preventing people from using condom.

These findings collaborate with the conclusions of many (eg. Fisbein and Cappella, 2006; Morris and Clarkson, 2009) researchers who state that although an investigator can sit in her or his office and develop measures of attitudes, perceived norms, and self-efficacy, she or he cannot tell what a given population (or a given person) beliefs about performing a given behaviour. Thus, ultimately, one must go to members of that population to identify salient outcome and normative and efficacy beliefs. Once understood in this way, these beliefs can serve as the basis for messages and other interventions that can have an impact on the target

behaviour through the mediating mechanisms (Weinstein et al., 2008; Kotler and Lee, 2008). Andreasen (1995) concludes that expert social marketers must recognise that the way to get where they want to go is to start with where the customers are. The assumption is made that customers have very good reasons for doing what they do. The challenge for the marketer is to figure out how to adjust the marketing programme to respond to these reasons. Andreasen (2006) indicates that in this 21st century, an audience-centred social marketer thinks that if an intervention is not successful, it is not the target audience's fault. It is quite probable that the social marketer does not understand the audience well enough to create effective strategies. It was insightful to find that the implementers research to understand their targeted population. Yet, they do not tailor their interventions to suit their audience. The author is of the view that it is waste of time and resources for implementers to undertake research if they fail to use the information to design tailor-made interventions. The next section discusses findings on behavioural change theory which is seen as an effective tool of understanding target audience.

6.1.3: The Use of Behavioural Change Theories in Planning Social Marketing Intervention programmes on HIV/AIDS

The result found that majority of implementers of social marketing intervention programmes on HIV/AIDS in Ghana do not utilise behavioural change theories/models in planning their interventions irrespective of the fact that existing literature indicates their usefulness in enhancing the effectiveness of any intervention. This is not consistent with the current argument for designing effective social marketing intervention programmes. Kotler and Lee (2008) conclude that information on target audience, barrier, benefits, and competition will help deepen understanding but may not lead to behaviour change. It is, therefore, imperative to understand underlying behaviour change theories. Glanz, et al., (2008) assert that a social

marketing professional who understands the relevance of theory may be able to design better interventions tailored to the needs of his/her target audience. In their research, Noar, (2008) and Ammerman et al. (2002) after comparing interventions developed using theories to those without any formal theoretical framework in meta-analytic study to design interventions to increase condom use conclude that interventions informed by theories were somewhat or clearly more effective in changing behaviour than those not based on theory. Glanz, et al., (1996, 2002) posit that theories can be used to guide the search for why people are not following public health interventions or not caring for themselves in healthy ways. They can help pin-point what one needs to know before developing and organising an intervention programme. It is, therefore, not surprising to know that some interventions on HIV/AIDS in Ghana are designed without the involvement of social marketing experts. The author contends that implementers of social marketing intervention programmes on HIV/AIDS in Ghana should understand and utilise behavioural change theory if they wish to design effective intervention programmes. In addition to utilising behavioural theory and designing effective interventions, social marketers must remove barriers in the environment that may prevent Ghanaians from adopting HIV/AIDS protective behaviours. Consequently, the next section discusses findings on environmental factors.

6.1.4: Environmental Factors Preventing Ghanaians from Adopting Social Marketing Recommendations.

The result reveals many economic and socio-cultural factors that could prevent Ghanaians from adopting social marketing recommendations on HIV/AIDS. In most cultures in Ghana, women do not discuss sexual issues with their partners. For this reason, women are rarely able to ask their partners to use condoms. The implementers are also of the view that fear of dying early for knowing one's HIV status and stigmatisation have prevented many from

going in for HIV test. The implementers were also worried that people do not report rape cases that are major source of getting infected with HIV because they feel they will be stigmatised or no one will marry them if it becomes public notice that they have been raped. Three of the directors interviewed identified religion as one of the factors preventing some Ghanaians from adopting social marketing interventions on HIV/AIDS. The findings about existing factors preventing the adoption of social marketing interventions on HIV/AIDS by Ghanaians are consistent with a number of research conclusions in social marketing research. Morris and Clarkson (2009) recommend that social marketing strategy must provide an environment that facilitates desired behaviour and removes or reduces competition. This process involves several steps and starts with understanding of the existing knowledge, attitudes and behaviour as well as the nature of competition (Morris and Clarkson, 2009).

Glanz, et al., (1996, 2002) posit that theories can be used to guide the search for why people are not following public health interventions or not caring for themselves in healthy ways. They can help pin-point what one needs to know in the environment before developing and organising an intervention programme. Once this environment is provided, it is more likely that the targeted individual will perform the recommended behaviour. Indeed, if one has made a strong commitment to perform a given behaviour and has the necessary skills and abilities to perform the behaviour and if there are no environmental constraints to prevent the performance of that behaviour, there is a very high probability that the behaviour will be performed (Fishbein, 2000; Fishbein et al., 2001; Fishbein and Cappella, 2006). Studies show practitioners are more likely to wash their hands on wards with more sinks than on wards with fewer sinks (Naikoba and Hayward, 2001). The author asserts that implementers of social marketing interventions on HIV/AIDS should remove the environmental barriers for

their interventions to have impact on Ghanaians since the barriers will prevent the adoption of HIV-protective behaviours.

Some implementers, however, indicated that irrespective of their efforts to create conducive environment for Ghanaians to adopt social marketing interventions on HIV/AIDS, some are still not responding to the environment. They, therefore, recommend that the target population must create their own environment to receive social marketing interventions. This recommendation is consistent with Social Cognitive Theory (SCT) which posits that learning, or the development of behaviour, is achieved through the interaction of three different factors: personal, behavioural and environmental influences (Blair-Stevens et al., 2010). Though SCT recognises how environment shapes behaviour, it focuses on people's potential abilities to alter and construct an environment to suit purposes they devise for themselves (McAlister et al., 2008; Baranowski et al., 2002). Kotler and Lee (2008) however, share a different view. They conclude that heavy reliance on individual voluntary behaviour change is outdated and have moved on to applying social marketing technologies to influence other change factors (such as laws, policies) in the environment as well. Sometimes, when all else fails, behavioural controls are put in place to influence the behaviour in the given context. The challenges facing the implementers are to some extent part of the environmental factors preventing the adoption of HIV-protective behaviours. The next section, therefore, discusses the findings on the challenges facing implementers.

6. 1.5: Challenges of Implementers

The result disclosed the following as the main challenges confronting implementers in their attempt to reduce new HIV infections: the donors of the social marketing intervention programmes on HIV are demanding tailor-made interventions as against the generalised interventions. The implementers also indicated lack of adequate financing, health system

barriers, procurement delays that sometimes lead to shortages of condoms and antiretroviral drugs, limitation of human resources and media misrepresenting information on HIV/AIDS. These findings are consistent with the extant literature which suggests that lack of time (Grol, et al. 2003; Lang et al. 2007) and lack of resources (financial and human resources) generally are a commonly cited explanation for lack of change (Sheldon, et al. 2004; Jibawi, et al. 2008; Lang, et al. 2007; Taylor and Beswick, 2005) by implementers and these cannot be resolved at the individual implementer level. Many of the issues identified as challenges to change at the implementers' level are, in fact, well beyond their control and require responses at a higher level (Gurses, et al. 2008). The current debate in social marketing literature, therefore, suggests that social marketers should not only use the intervention mix (4Ps) to influence only the downstream. Rather, they should also seek to influence the upstream (politicians and private sector) to help them overcome most of these challenges (Andreasen, 2006). The next section discusses the findings on the awareness of social marketing interventions on HIV/AIDS.

6.1.6: Awareness of Social Marketing Interventions on HIV/AIDS

On the extent or coverage of social marketing interventions on HIV/AIDS in Ghana, all the directors interviewed assert that the coverage is nationwide. In other words, every Ghanaian has the opportunity of hearing/seeing social marketing interventions on HIV/AIDS irrespective of the location of the individual. However, some residents in Ghana might not receive the interventions on HIV/AIDS due to their inability to access certain medium of communication. The implementers indicated that although the awareness of HIV prevention among general populations is high, this knowledge has not adequately been translated to behavioural change. This is consistent with the conclusion of Strand et al. (2004) which states that social marketing campaigns always create awareness among the targeted population but

there is a huge disconnect in converting that increased awareness and attitude change into behaviour change. Niblett (2005) asserts that to achieve social marketing programme objectives, the interventions often create new awareness and new attitudes that facilitate change in the form of action. However, he concludes that the goal of social marketing programmes is not to run communication campaigns and create awareness but the ultimate goal is to effect behaviour change or create action that leads to social change. The author postulates that the high awareness on HIV/AIDS is not associated with behaviour change because of the inabilities of the implementers to utilise behavioural change theory(s) and design tailor made interventions. Until they move from generalised to targeted interventions, they should not expect any positive impact on the behaviour of Ghanaians. It is important for implementers to understand the perceptions of Ghanaians if they want their interventions to have impact on their behaviours. The next section discusses findings on the perception of Ghanaians on HIV/AIDS.

6.1.7: Perceptions of Ghanaians on HIV/AIDS

In conclusion, the thematic analysis found the following as the general perception of Ghanaians on HIV/AIDS: (1) Most Ghanaians still believe that HIV is transmitted by supernatural powers, (2) some still believe that it is transmitted through mosquito bites, (3) some believe that when you urinate behind somebody's house without permission or sleep with somebody's wife you will get HIV, (4) some people also believe that HIV/AIDS is religious, it is God-sent, it is a punishment or a curse from God because of that people infected with it prefer going to prayer camps instead of getting treatment from hospitals, (5) they believe that HIV is a death sentence, when you acquire HIV, it means you are dying or you will die soon, (6) for the youth, some think that HIV is far away from them, (7) some think that AIDS is not a dangerous disease because one could live with it for a long period of

time and (8) some believe in the social marketing recommendations on HIV/AIDS as means of preventing the epidemic. Researching and understanding the perceptions of Ghanaians on HIV/AIDS is consistent with extant literature. In social marketing intervention programmes tailored to different populations to promote male circumcision in Johannesburg, Bridges et al., (2010) conclude that researching actual community perceptions prior to the implementation of social marketing campaign is critical, especially, with interventions which are culturally charged and physically invasive as HIV/AIDS testing and counselling. The author asserts that to influence Ghanaians to adopt recommendations of social marketing intervention programmes on HIV/AIDS, it is imperative that implementers address all the negative perceptions on HIV/AIDS.

6.2: Discussions of Quantitative Research Results

This section discusses quantitative research results in line with previous research in social marketing. It begins with a discussion on knowledge and the impact of social marketing on HIV/AIDS.

6.2.1: Knowledge and impact of Social Marketing Interventions on HIV/AIDS

The study indicated that majority of respondents have seen or heard social marketing interventions on HIV/AIDS (98.1%), know what they can do to prevent HIV/AIDS new infection (99.2), and have seen or heard social marketing interventions on HIV/AIDS for more than 5 years (72.8%). The author concludes that respondents' awareness on HIV/AIDS is very high and they have seen/heard social marketing interventions on the disease for a long time. This is consistent with GAC, 2010 and NACP, 2006 which states that more than 90% of Ghanaians are aware of social marketing intervention programmes on HIV/AIDS. The results also confirm the conclusion by Niblett (2005) which asserts that to achieve social marketing

programmes objectives, the interventions often create new awareness and new attitudes that facilitate change in the form of action. The result in table 5.5, however, reveals that there is a statistically significant difference between respondents who are in the rural areas and their urban counterparts and their awareness of social marketing intervention programmes on HIV/AIDS. The urban respondents are more likely to know about social marketing interventions on HIV/AIDS than those in the rural areas. The author asserts that this may be due to the fact that Ghanaians who live in the urban areas are more likely to have access to the various vehicles of communications on HIV/AIDS than their rural counterparts.

The respondents indicated the following as the preventive measures of contracting HIV/AIDS: abstinence, condom use, one sexual partner, avoiding sex with prostitutes and homosexuals, avoiding unauthorised blood transfusion and sharing blades and needles. This is consistent with Wulfert, et al., (1996), Lin, et al., (2005), Steers, et al., (1996), Zak, et al., (2004) and Niblet, (2005) who indicate condom use, one sexual partner, etc. as preventive measures target audience needs to adopt to bring change in behaviour. The respondents, however, indicated kissing and mosquito bites as ways of transmitting HIV. This collaborates with the findings of qualitative research with implementers, who realised that people still believe that HIV/AIDS can be transmitted through mosquito bites. The author suggests that social marketing intervention programmes should be designed to change this misconception about HIV transmission.

6.2.2: Impact of Social Marketing Intervention Programmes on HIV/AIDS

The results also showed that social marketing intervention programmes on HIV/AIDS in Ghana have mainly influenced respondents to stop sharing blades and needles with others. Though, majority of respondents indicated that the interventions on HIV/AIDS have influenced them to start using condom and restrict sex to one partner, they do not believe in

the efficacy of condom and restricting sex to one partner as measures to prevent HIV/AIDS new infection. Majority believe in abstinence as the best method to prevent HIV/AIDS new infections. However, they indicated that they could not abstain from sex. A t-test result in table 5.10 shows that there is a statistically significant difference ($t(473) = 5.590, p < 0.001$) between male and female on whether or not they have gone for HIV/AIDS test. On the average, women are more likely to agree that they know their HIV status (mean=2.63) than men are (mean=3.59). This is because in Ghana, as part of antenatal care, all pregnant women who visit any health facility are tested for HIV/AIDS. The author concludes that social marketing intervention programmes designed to change HIV/AIDS related behaviours in Ghana have generally not been effective. This is consistent with Michael Rothschild's (2004) emphasis that social marketers are good at delivering ideas, creating awareness and positive attitudes and developing branding and position. However, there is a huge disconnect in converting that increased awareness and attitude change into behaviour change (Strand et al. 2004).

6.2.3: Medium of Receiving Social Marketing Interventions on HIV/AIDS

Further analysis to determine the effective channels used to communicate social marketing intervention programmes on HIV/AIDS show that 91.3% of respondents agree of receiving information on radio, 79.2% on television, 63.2% through health workers, and 51.8% through word-of-mouth. Only a minority of respondents agree that they have heard or seen social marketing interventions on AIDS through billboards (27.1%), conference/presentation (19.9%), posters/pamphlets (16.6%) and newspapers/magazines (16.3%). The author posits that radio, television, health workers and word-of-mouth are the most effective channels to communicate social marketing intervention programmes on HIV/AIDS to Ghanaians.

An ANOVA result in table 5.6a reveals that on the average, the respondents strongly agree that they have received social marketing interventions on HIV/AIDS from radio (mean=4.54, SD= 0.849) and television (mean=4.14, SD= 1.539). However, on the average, the respondents disagree that they have received social marketing interventions on HIV/AIDS from newspapers/magazines (mean=2.00, SD=1.287), billboards (mean=2.31, SD=1.453), conference/presentation (mean=2.00, SD=1.398) and posters/pamphlets (mean=1.89, SD=1.268), whilst on average, the respondents were neutral as to whether they received information on HIV/AIDS from health workers (mean=3.49, SD=1.708) and word-of-mouth (mean= 3.07, SD=1.747). This collaborates with the qualitative research findings on the effectiveness of the various platforms for communicating social marketing interventions on HIV/AIDS in Ghana, where implementers drew a conclusion that through research, they have realised that radio and television are the most effective of all the available media.

The ANOVA result further shows a significant difference ($F=3.090$, $P<0.027$) between respondents' age group and their reception of social marketing interventions on HIV/AIDS from radio. The respondents within 18-24 age group are less likely to have received information on HIV/AIDS from radio than their counterparts in other age groups. The result also shows a significant difference ($F= 4.208$, $P<0.006$) between respondents age group and their reception of social marketing interventions on HIV/AIDS from television. The respondents within 18-24 age group (mean= 4.47, SD=1.186) strongly agree that they received information on HIV/AIDS from television than those in other age groups. Further analysis reveals a significant difference of ($F=3.160$, $P< 0.024$) between age groups and their receipt of social marketing interventions on HIV/AIDS from posters/pamphlets. The result shows that respondents within 41-50 age group (mean=1.43, SD=0.849) are less likely to access interventions on HIV/AIDS from posters/pamphlets. Evidence in table 5.6a shows that

there is no statistically significant difference between respondents age group and whether they received interventions on HIV/AIDS from healthcare workers ($F=1.257$, $P> 0.289$), billboards ($F=1.881$, $P> 0.132$, word-of-mouth ($F=0.364$, $P>0.779$), news papers/magazines ($F=1.999$, $P>0.133$) and conference/presentation ($F=0.468$, $P> 0.705$).

On respondents' current level of education and the medium of receiving social marketing interventions on HIV/AIDS, ANOVA result in table 5.6b shows that on the average, the respondents received social marketing interventions on HIV/AIDS from radio (mean=4.54, SD=0.849) and television (mean=4.89, SD=0.557). However, on the average, they are less likely to access social marketing interventions on HIV/AIDS from newspapers/magazines (mean=2.00, SD=1.287), billboards (mean=2.31, SD=1.453), posters/pamphlets (mean=1.89, SD=1.268) and conference/presentation (mean=2.00, SD=1.398), whilst on average, the respondents were not sure whether they received social marketing interventions on HIV/AIDS from health workers (mean=3.49, SD=1.706) and word-of-mouth (mean=3.07, SD=1.747). The author suggests that implementers of social marketing intervention on HIV/AIDS should employ television and radio to target Ghanaians within 18-24 age group and those belonging to other age groups, respectively.

In table 5.6b, ANOVA result shows a statistically significant difference ($F=21.165$, $P<0 .001$) between respondents' level of education and whether they received social marketing interventions on HIV/AIDS from television. On the average, respondents with tertiary education (mean=4.89, SD=0.557) and SHS/A 'Level education (mean=4.82, SD=0.743) have the strongest belief that they received social marketing interventions on HIV/AIDS from television, whilst respondents with no formal education (mean=3.26, SD=1.905) and primary education (mean=3.37, SD=1.872) are neutral. The author observed from the data that as

respondents' education increases, their agreement to have received interventions on HIV/AIDS from television becomes stronger. The author is of the view that because most television stations in Ghana use the English language as the official language, Ghanaians with no formal and primary education are unable to receive and understand information on HIV/AIDS from television as compared to their counterparts with higher levels of education.

Further ANOVA analysis shows a statistically significant difference between respondents' level of education and whether they received social marketing interventions on HIV/AIDS from newspapers/magazines ($F=17.960$, $P<0.001$), billboards ($F=13.664$, $P<0.001$), posters/pamphlets ($F=20.216$, $P<0.001$) or conference/presentation ($F=15.030$, $P<0.001$). The respondents with no formal education strongly disagree that they received social marketing intervention programmes on HIV/AIDS from newspapers/magazines (mean=1.29, $SD=0.587$), billboards (mean=1.49, $SD=0.829$), posters/pamphlets (mean=1.21, $SD=0.451$) or conference/presentation (mean=1.3934, $SD=0.714$). The author concludes that respondents with no formal education are less likely to access social marketing intervention programmes from newspapers/magazines, billboards, posters/pamphlets, or conference/presentation. Evidence in table 5.6b suggests that there is no statistically significant difference between respondents' level of education and their receipt of social marketing intervention programmes from radio ($F=1.421$, $P>0.226$), health workers ($F=1.722$, $P>0.144$) or word of mouth ($F=0.166$, $P>0.956$).

In table 5.6c, the t-test result shows that there is a statistically significant difference between respondents' location and their receipt of social marketing intervention programmes from television ($t(470) = -15.892$, $P<0.001$), newspapers/magazines ($t(470) = -5.398$, $P<0.001$), billboards ($t(470) = -7.141$, $P<0.001$), posters/pamphlets ($t(470) = -5.608$, $P<0.001$),

conference/presentation ($t(470)=-3.992$, $P<0.001$) or word of mouth ($t(471)=-3.115$, $P<0.0032$). However, there is no statistically significant difference between respondents' location and their receipt of interventions on HIV/AIDS from radio ($t(470)=-0.154$, $P>0.877$) or health workers ($t(471)=-0.539$, $P>0.590$). The respondents in the rural areas as compared to their urban counterparts strongly disagree that they received social marketing intervention on HIV/AIDS from newspapers/magazines (mean=1.48), billboards (mean=1.55) posters/pamphlets (mean=1.36), or conference/presentation (mean=1.58), whilst they are more likely to be neutral that they received social marketing intervention programmes from television (mean=2.62) or word-of-mouth (mean=2.66).

The author indicates that the respondents in the rural areas mainly received social marketing interventions on HIV/AIDS from radio, whilst their urban counterparts generally received the intervention from radio and television. The author is of the impression that due to the poor road networks in rural Ghana, access to electricity, or weak TV signal, Ghanaians in rural areas are unable to access most media (eg. newspapers, posters, conferences, health workers, etc) used in social marketing interventions on HIV/AIDS. The author further asserts that implementers of social marketing intervention programmes on HIV/AIDS in Ghana must use media preferred by their audience. This assertion supports Andreasen, 2002 and Morris and Clarkson, 2009 who indicate that social marketers have to design "attractive benefits packages (products) while minimising cost (price), wherever possible and making the exchange convenient, easy (place), while communicating powerful messages through media relevant to-and preferred by-target audiences (promotion).

6.2.4: Normative Beliefs, Attitude, Personal Agency, Intention and Behavioural

Performance of Respondents.

To determine the normative beliefs, attitude, personal agency and intentions of respondents, frequency distribution analysis was first conducted. The following section discusses findings on perceived susceptibility of respondents in relation to previous research.

6.2.4.1: Perceive Susceptibility of Respondents

The result indicates that a little more than half of the respondents (54.8%) disagree with the statement that there is practically no chance they could get HIV/AIDS. However, almost half of the respondents (42.6%) disagree with the statement, whilst 2.5% of them were neutral. ANOVA result in table 5.16 reveals that on the average, the respondents are of the impression that there is practically no chance they could contract HIV/AIDS (mean=2.62, SD=1.574). Therefore, their perceived susceptibility to HIV/AIDS is negative.

In table 5.16, ANOVA result shows a statistically significant difference ($F=3.977$, $P<0.003$) between respondents' current level of education and their perceived susceptibility to HIV/AIDS. The respondents with tertiary education (mean=3.10, SD=1.600) are more likely to be neutral about their perceived susceptibility to HIV/AIDS and the most sceptical are respondents with no formal education (mean=2.21, SD=1.439). All other respondents are on average between agreeing that there is practically no change they could get HIV/AIDS and neutral. The author is of the impression that Ghanaians with no formal education are unable to receive and synthesise social marketing interventions on HIV/AIDS as compared to their counterparts who are educated. This is consistent with Mathieson et al. (2001) who argue that education level could be positively associated with perceived behavioural control because it could reflect users' level of internal capabilities, such as technical skills and

intelligence. Overall, the influence of education level on usage via perceived behavioural control would be positive (Mathieson *et al.* 2001).

However, a correlation result in table 5.20 reveals that there is no significant ($P>0.174$) relationship between respondents' intention to test for HIV/AIDS and their perceived susceptibility of getting HIV/AIDS. The author contends that in Ghana, respondents' perceived vulnerability of getting HIV/AIDS does not affect their intentions to protect themselves against the disease. This is inconsistent with HBM hypothesis and other research conclusions in social marketing. The HBM suggests that, for individuals who exhibit high-risk behaviours, perceived susceptibility is necessary before commitment to changing these risky behaviours can occur (Champion and Skinner, 2008). Champion, (1984), Champion and Menon, (1997), Champion, et al., (2000), Phillips et al., (1998), and Matthews, et al., (2003) posit that adherence has been significantly associated with greater perceived susceptibility, lower barriers, higher benefits and cues in the form of recommendations from health care providers and social marketing interventions. Indeed, a meta-analytic review of 65 studies representing over 20 health areas that included approximately 30,000 participants (Floyd, et al., 2000) demonstrated that, in general, increases in vulnerability, response efficacy and self-efficacy perceptions facilitated adaptive intentions and behaviours. The next section discusses respondents' normative beliefs in relation to previous research.

6.2.4.2: Normative Beliefs of Respondents

On normative belief of respondents, the result shows that majority of respondents indicated that they do not see anything wrong with a woman who is seen buying or carrying condom. However, the result in table 5.11 shows that there is a statistically significant difference ($t(479) = -4.628, P < 0.001$) between rural and urban respondents and their perceptions toward a

woman who is seen buying or carrying condom. On average, rural respondents are to some extent more likely to agree that a woman who is seen buying or carrying condoms is promiscuous in society (mean=2.62) than their urban counterparts who are more likely to disagree with the statement (mean=3.36). The author is of the view that this may be due to the fact that Ghanaians who live in the urban areas are more exposed to social marketing interventions on HIV/AIDS and less influenced by culture.

In table 5.12, the t-test result shows that there is a statistically significant difference ($t(479) = 6.030, P < 0.001$) between genders and their attitude towards whether buying condom is an embarrassing experience. On average, men are more likely to disagree with the statement (mean 3.77) than women who are more likely to be neutral with the statement (mean=2.86). This is due to the normative restrictions on women in Ghana which prevent them from engaging in certain activities (eg. buying condom). This is consistent with Wight, et al., (1998) who posit that perceptions and self-efficacy to use condom between men and women can vary because in the case of condom use, the behaviour is not under the woman's direct control.

Majority of the respondents (90.2%) agree that most of the people who are important to them think that using condom, abstinence, keeping to one sexual partner or going for HIV test are proper ways of protecting themselves against HIV/AIDS. An ANOVA result shows that on average, the respondents are of the impression that most people who are important to them think that doing one or more of the following is a proper way to protect themselves against AIDS: condom use, abstinence, keeping to one sexual partner or going for HIV test (mean=1.67, SD=0.729). Evidence in table 5.19, shows that there is no statistically significant difference ($F=1.014, p > 0.386$) between respondents age groups and their subjective norms on condom usage, abstinence, and keeping to one sexual partner or going for HIV/AIDS test.

The author concludes that Ghanaians irrespective of their age groups have the same subjective norms on condom usage, abstinence, keeping to one sexual partner or going for HIV/AIDS test. This is not consistent with research in the subject area. Mathieson *et al.* (2001) describe age as a measure of personal resources or perceived behavioural control. Honold (2000) argues that user capabilities are usually a result of demographic (user's age, educational background, income) or situational (experience). Brigman and Cherry, (2002) contend that age increases the effect of subjective norms because older workers have a greater need for affiliation.

However, a correlation result in table 5.28 discloses that there is a statistically significant relationship ($r=.140$, $P<0.002$) between respondents' subjective norms concerning social marketing recommendations on HIV/AIDS and their intentions to adopt the recommendations. This is in tandem with Montano and Kasprzyk, (2008) who assert that a person's subjective norm is determined by his or her normative beliefs, that is, whether important referent individuals approve or disapprove of performing the behaviour, weighted by his or her motivation to comply with those referents. A person who believes that certain referents think she should perform a particular behaviour and is motivated to meet expectations of those referents will hold a positive subjective norm. Conversely, a person who believes these referents may think she should not perform the behaviour will have a negative subjective norm. Similarly, the more one believes that specific others are (or are not) themselves performing the behaviour in question, or that these important others think that one should (or should not) perform the behaviour in question and the more one is motivated to be like or to comply with those specific others, the more social pressure one will feel (or the stronger the subjective norm) with respect to performing (or not performing) the behaviour

(Fisbein and Cappella, 2006). The next section discusses the findings on perceived severity in relation to research in social marketing.

6.2.4.3: Perceived Severity of HIV/AIDS

On perceived severity of the disease, the result reveals that a little more than half of the respondents (58.8%) agree that HIV/AIDS is the most dangerous disease that could ever happen to them. Almost 40%, however, do not see HIV/AIDS as the worst disease they could ever contract. Though results indicate that perceived severity of HIV/AIDS of most respondents is positive, large numbers of respondents do not perceive HIV/AIDS as a dangerous disease. Some even perceive malaria as more dangerous with the explanation that one could live with HIV for a long period of time. This is worrying, therefore, the author suggests that social marketing intervention programmes be designed to change those negative perceptions.

A correlation result in table 5.21 indicates that there is a statistically significant relationship ($r=.138$, $P<0.003$) between respondents' perceived seriousness of HIV/AIDS and their action to stop sharing blades/needles to protect themselves against the disease. The relationship is positive, so the author concludes that as perceived severity of Ghanaians increases, there is some tendency that their agreement to stop sharing blades/needles to protect themselves against HIV/AIDS would also increase. This is consistent with previous studies in social marketing. Hochbaum (1958) asserts that, if individuals regard themselves as susceptible to a condition and, (i) believe that condition would have potential serious consequences, (ii) believe that a course of action available to them would be beneficial in reducing their susceptibility to or severity of the condition and (iii), believe the anticipated benefits of taking action outweigh the barrier to action, they are likely to take action that they believe

will reduce their risk. A meta-analytic review of 65 studies (Floyd, et al., 2000) demonstrates that, in general, increases in severity, vulnerability, response efficacy and self-efficacy perceptions facilitated adaptive intentions and behaviours. The next section discusses the findings on the self efficacy of respondents in relation to previous studies.

6.2.4.4: Self Efficacy of Respondents

On self efficacy of the respondents, it was insightful to find from the results that only 26.4% of respondents agree that they are able to use condom to prevent HIV/AIDS new infection without fumbling. For more than half of the respondents (52.8%), in instances when they have tried to wear a condom for protection against HIV/AIDS, it bursts, whilst 20.8% were uncertain of their ability to use condom. The author asserts that about 74% of Ghanaians either disagree or are uncertain of their ability to use condom. Therefore, social marketing intervention programmes need to be put in place to educate Ghanaians on how they could properly use condom to protect themselves against HIV/AIDS.

An ANOVA result in table 5.18 indicates that on the average, the respondents were not sure whether or not they have the ability to use condom properly (mean=3.31, SD=1.375). The author posits that once respondents do not know how to use a condom, it is more likely they will not use condom. This resonates with the report by Lin, et al., (2005) and Steers, et al., (1996) who assert that self- efficacy is one of the stronger predictors of condom use or safe sex. Self-efficacy was a significant predictor of sexual behaviours that include increased condom use, decreased number of sex partners and decreased number of sexual encounters (Zak, et al., 2004).

An ANOVA result further reveals that there is no statistically significant difference ($F=0.146$, $P> 0.932$) between respondents' age groups and their ability to use condom to prevent HIV/AIDS new infections. The author suggests that, all respondents irrespective of their age groups, have the same perceived behavioural control when it comes to condom usage. This is not consistent with findings of Mathieson *et al.* (2001) who conclude that age is a measure of personal resources or perceived behavioural control. Morris and Venkatesh (2000) also argue that age reduces perceived behavioural control because self-efficacy and cognitive skills decrease as people grow older (Brigman and Cherry, 2002).

In table 5.29, the result shows that there is a statistically significant relationship ($r=-.167$, $P<0.001$) between respondents' intention of buying/using condoms and their ability to use condom (self-efficacy). The relationship is negative, so the author concludes that as the intention of respondents not to use condom increases, there is the tendency that they have less ability to use condom. In other words, the more the respondents improve their ability to use condom, the less they will form an intention not to buy or use condom to protect themselves against HIV/AIDS. This is consistent with Bandura, (1989) and Fishbein and Cappella, (2006) who contend that a person's self-efficacy for a given behaviour dramatically affects their intention (self-motivation) for performing that behaviour. They further conclude that if individuals feel they are capable of achieving the goal then, they are likely to work harder and give up less easily compared to a person who has low self-efficacy. Self-efficacy studies in relation to HIV-protective behaviours posit that an individual's perceived ability to carry out a particular behaviour is necessary to prevent infection with HIV (Janz and Becker, 1984). The next section discusses the findings on response efficacy of respondents in relation to previous studies.

6.2.4.5: Response Efficacy of Respondents

The results in tables 5.13a and 5.13b reveal that majority of respondents do not believe in condom and keeping to one sexual partner as means of protecting themselves from contracting HIV/AIDS infection. A correlation result in table 5.23a reveals that there is a statistically significant relationship ($r = .145$, $P < 0.001$) between respondents who believe in social marketing recommendations on HIV/AIDS (keeping to one sexual partner works in preventing HIV/AIDS new infection) and their action to restrict sex to one partner. Since relationship is positive, the author concludes that as respondents' belief in social marketing recommendations to restrict sex to one sexual partner increases, there is some propensity that respondents' agreement to restrict sex to one partner increases as well. This is consistent with previous research which asserts that, the more one believes that performing the behaviour in question will lead to "good" outcomes and prevent "bad" outcomes, the more favourable one's attitude toward performing the behaviour would be. This would be true for such HIV/AIDS-related behaviours as using condom, abstinence from sex, keeping to one sexual partner and getting screened for HIV/AIDS (Fisbein and Cappella, 2006; Weinstein, 1993; Montano and Kasprzyk, 2008).

In table 5.23b, the correlation result further reveals that there is a statistically significant relationship ($r = -.126$, $P < 0.006$) between respondents' belief in abstinence as a way of protecting themselves from HIV/AIDS new infection and their ability to abstain from sex. Since the relationship is negative, the author concludes that as people's belief in abstinence as means of avoiding HIV/AIDS infection increases, their action to abstain from sex decreases. The author indicates that even though most people do believe in abstinence as a means of protecting themselves against HIV/AIDS infection, their response efficacy has not been translated into action to abstain from sex. The author believes that there could be some

barriers they are unable to overcome. Several researchers have found a significant relationship between barriers and HIV-protective behavioural performance (Hounton, et al 2005; Volk and Koopman, 2001). However, the finding is not consistent with research by Fisbein and Cappella, 2006, Weinstein, 1993, and Montano and Kasprzyk, 2008.

In table 5.23c, the correlation result under hypothesis 7 actually reveals that there is a statistically significant relationship ($r=-.129$, $P<0.005$) between respondents' belief in condom use as a measure of protecting oneself against HIV/AIDS new infection and their action to use condom. The relationship is negative, so the author concludes that as belief in condom use decreases, condoms used could increase. The author perceives that Ghanaians may use condom for reasons that might not relate to the efficacy of condom as a means of avoiding HIV/AIDS new infection. Sometimes, they may use condom to satisfy their sexual partners who demand the use of condom. This is consistent with Laraque, et al., (1997) who assert that condom use among Central Harlem youth was motivated by the perceived value of condoms to avoid pregnancy, as well as avoidance of HIV/AIDS, but the strongest motivation was avoiding pregnancy. Even if the respondents have positive response efficacy, they need a conducive environment to perform the recommended behaviour(s). The next section therefore, discusses findings on environmental factors which could hinder respondents from performing HIV/AIDS-protective behaviours.

6.2.5: Environmental Factors Preventing HIV/AIDS-Protective Behaviours

The result reveals that majority of respondents indicated that it is not difficult to locate a facility to test for HIV/AIDS or buy condoms. Regarding the affordability of condom, the result reveals that majority agree that condom is very affordable. However, in table 5.14, the

result shows that there is a statistically significant difference between respondents in the urban and rural areas and their views on facilities to test for HIV/AIDS or buy condom. On average, respondents in the rural areas are strongly inclined to agree that it is difficult to locate an outlet to test for HIV/AIDS or buy condom than respondents in the urban areas. The author concludes that due to the difficulty in accessing condom and HIV testing facilities, the respondents who are in the rural areas are more likely not to test for HIV/AIDS or buy condom to protect themselves against the epidemic. This is because as perceived barrier increases, condom use or going for HIV test to protect oneself against HIV/AIDS decreased (Wulfert, et al., 1996).

Finally, the correlation results in tables 5.26a and 5.26b reveal that there is a statistically significant relationship between respondents locating a facility to test for HIV/AIDS or buying condom and those who have gone for HIV/AIDS test or bought/used condom. Since the relationship is negative, the author concludes that as it becomes more difficult for Ghanaians to locate a facility to test for HIV/AIDS or buy condom, there is the likelihood that few of them will go for the test or buy condom. In other words, the less Ghanaians find it difficult to locate a facility to test for HIV/AIDS or buy condom, the more likely they will go for the test or buy condom. This is consistent with Fishbein, (2000); Fishbein et al., (2001); and Fishbein and Cappella, (2006) who postulate that if one has made a strong commitment to perform a given behaviour and has the necessary skills and abilities to perform the behaviour, and there are no environmental constraints to prevent the performance of that behaviour, there is a very high probability that the behaviour will be performed. Strand et al., (2004) support this view and argue that the marketing mix variable of “place” is often overlooked or assumed to be inapplicable to social marketing, yet many programmes fail precisely because their planners do not pay adequate attention to developing and improving

the channels of distribution. This supports the recommendation by Mah et al., (2006) that social marketing product (eg.condom) should be made available to audiences and can include attempts to move health facilities closer to the users. Naikoba and Hayward (2001) studies show that practitioners are more likely to wash their hands on wards with more sinks than those with fewer sinks. Therefore, the author argues that if health facilities are made available to Ghanaians in the rural areas, it is more likely they will test for HIV/AIDS or use condom. Ghanaians need to form an intention to perform HIV-protective behaviours even after they have been provided with an enabling environment. The next section, therefore, discusses the findings on intention to perform HIV-protective behaviours in relation to previous research.

6.2.6: Intention to Perform HIV/AIDS Protective Behaviours

Montano and Kasprzyk (2005) assert that the predictor of a behaviour is its behavioural intention. The result indicates that majority of the respondents (80.6%) have formed an intention to protect themselves against HIV/AIDS. Specifically, majority said they have formed an intention to go for HIV test, use condom or keep to one sexual partner to protect themselves against HIV/AIDS (see figures 5.11a, 5.11b and 5.11d in appendix 3) . On behavioural performance, it was found that 81.5% of the respondents in the last 6 months have kept to one sexual partner to protect themselves against HIV/AIDS (see table 5.34a in appendix 3). However, in the last six (6) months, majority of the respondents (81.3%) have not gone for HIV/AIDS test (see table 5.34b in appendix 3).

An ANOVA result in table 5.15 reveals that on the average, the respondents are of the view that they use condom to protect themselves against HIV/AIDS (mean=2.69, SD=1.793).The result shows a statistically significant difference ($F=14.270$, $P<0.001$) between respondents' marital status and their action to use condom to protect themselves against HIV/AIDS. On average, the respondents who are in co-habitation (mean=1.33, SD=0.577) and single

(mean=2.08, SD=1.529) are more likely to use condom than their counterparts who are married (mean=3.26, SD=1.852), divorced (mean=3.08, SD=1.891), widowed (mean=3.00, SD=1.633). The author posits that Ghanaians who are married or have once married do not see the need to use condom. This is because in Ghana, an attempt to use condom with your partner may suggest that you do not trust him/her or you are being unfaithful.

The correlation result in tables 5.24a and 5.24b show that there is a statistically significant relationship between respondents' intention to take a screening test for HIV/AIDS and keep to one sexual partner to protect themselves against HIV/AIDS and their actions in the last six month to test for HIV/AIDS and keep to one sexual partner. Since the relationship is positive, the author concludes that as intention to test for HIV/AIDS or keep to one sexual partner increases, there is the likelihood that the respondents will go for HIV/AIDS test or keep to one sexual partner.

The finding is consistent with research by Fishbein and Cappella, (2006) and Montano and Kasprzyk, (2008). Fishbein and Cappella, (2006) assert that any given behaviour is most likely to occur if one has a strong intention to perform the behaviour and there are no constraints preventing behavioural performance. The author is of the view that once Ghanaians form intention to perform HIV/AIDS protective behaviours without constraints, it is more likely they will perform the behaviour. Likewise, if they have no intention of performing the behaviour, it is more likely they will not perform the behaviour.

6.3: Summary of Differences and Similarities of Qualitative and Quantitative Findings

Tables 6.1 and 6.2, respectively show a summary of similarities and differences between qualitative and quantitative findings of the study.

Table 6.1: Summary of Similarities of Qualitative and Quantitative Findings

| Investigative Area | Qualitative Findings | Quantitative Findings |
|--|--|--|
| Objectives of Interventions on AIDS | Encourage people to: -know their HIV/AIDS status -use condom -reduce stigma and discrimination among people living with HIV/AIDS - abstain from sex before marriage - restrict sex to one mutual partner. | High awareness of respondents on the objectives of implementers |
| Women in Ghana and condom use | Women in Ghana are not allowed to discuss sex with their partners. For this reason women are unable to ask their partners to use condom. | Males (mean=3.77) are more likely to buy/use condom than females (mean=2.86) who fear to be stigmatised as prostitute. |
| Awareness and impact of interventions on HIV/AIDS | High awareness of HIV prevention has not adequately been translated into behavioural change. | 98.1% of the total respondents have seen/heard interventions on HIV/AIDS However, 51.8% have not gone for HIV/AIDS test or abstained from sex (91.6%) |
| | Difficulty in getting people to know their HIV/AIDS status | 81.2% in the last six months have not gone for HIV/AIDS test. |
| Medium used in communicating Social Marketing Intervention Programmes on AIDS. | The most effective of all the available media are radio and television. | On the average, the respondents strongly agree that they have received social marketing interventions on HIV/AIDS from radio (mean=4.54, SD= 0.849) and television (mean=4.14, SD= 1.539). |
| Perceptions of Ghanaians on HIV/AIDS | Some Ghanaians still believe that HIV is transmitted through mosquito bites. | 53.7% of respondents believe that HIV/AIDS is transmitted through mosquito bites. |
| Challenges | Lack of adequate financing, health system barriers, procurement delays, limitation of human resources and media misrepresenting information on HIV/AIDS. | The challenges confronting the implementers have led to the unavailability of facilities in the rural areas where respondents could buy condoms or know their HIV/AIDS status. |

In tables 6.1 and 6.2, the quantitative findings generally confirm and support qualitative findings and there are more areas of similarities than dissimilarities. The findings of the study confirm the importance of using mixed-methods approach, where a quantitative research confirms and explains initial qualitative findings. This study further suggests that irrespective

of differences found in both the qualitative and quantitative results, virtually the overall results indicate a reasonable level of consistency. However, table 6.2 shows differences between qualitative and quantitative findings. Whilst implementers of social marketing interventions on HIV/AIDS in Ghana share the view that there is no significant difference between attitude/adoption of HIV protective behaviours by different socio-economic groups in Ghana, and therefore, there is no need designing tailor made interventions. The quantitative research indicates a statistically significant difference among Ghanaians.

Table 6.2: Summary of Differences between Qualitative and Quantitative Findings

| Investigative Area | Qualitative Findings | Quantitative Findings |
|--------------------------------------|---|--|
| Difference between Ghanaians. | No statistically significant difference between Ghanaians | There is statistically significant difference between Ghanaians |
| Perceptions of Ghanaians on HIV/AIDS | Most Ghanaians still believe that HIV is transmitted by supernatural powers. | Only 6.3% of respondents believe in this and therefore prefer to seek protection from traditional healers or religious leaders. |
| | AIDS is not a dangerous disease because one could live with it for a long period of time | 58.8% indicated that HIV/AIDS is the most dangerous disease |
| | Ghanaians believe in the social marketing recommendations on HIV/AIDS as means of preventing the epidemic | 55.8% and 51.7% of the respondents do not believe in condom use and keeping to one sexual partner respectively as preventive measures. |

6.4: Summary

This chapter has discussed the various findings of both qualitative and quantitative research in line with previous studies in the subject area. The discussions led to a conclusion that, in Ghana, there is no relationship between intention and perceived susceptibility and proposed by IBM. The chapter concludes with the similarities and differences of qualitative and

quantitative research findings. The next and final chapter, chapter 7, presents the summary, conclusion, and theoretical/managerial implications of the study, and indicates research limitations and further research.

Chapter 7

Summary, Conclusion and Implications

7.0: Introduction

The previous chapter discusses the various findings of the research in line with previous studies in social marketing. This chapter presents the summary, conclusion and theoretical/managerial implications of the study and indicates research limitations and opportunities for further research. The next section presents summary of the research.

7.1: Summary of the Study

This section presents a summary of the thesis. Chapter 1 introduces the study and provides a general overview. The chapter specifically discusses the rationale of the study, the originality of this doctoral thesis, research aim and objectives, and the structure of the thesis. Chapter 2 provides contextual background information of the study. The chapter provides information on the profile, socio-economic growth and overview of the health sector in Ghana. It also highlights Ghana government's health policies, Ghana's HIV/AIDS profile, impact of HIV/AIDS on the Ghanaian economy, interventions to reduce HIV transmission in Ghana and profile of institutions involved with HIV/AIDS in Ghana. Chapter 3 reviews the literature related to the subject area of the thesis including the origin, definitions, principles and discussion of social marketing; targeting upstream and downstream with social marketing intervention programmes, and behavioural change theories and their applications to social marketing. The chapter also discusses the following models used in social marketing interventions: the health believe model, theory of reasoned action/theory of planned behaviour, the stages of change model, social norm theory, social cognitive theory, protection

motivation theory, and extended parallel process model (EPPM). It also discusses the conceptual framework of the study and the role of integrative behavioural change model in social marketing interventions. The chapter concludes by identifying gap in the literature from which thirteen hypotheses are formulated. Chapter 4 discusses the various research paradigms and associated methods that could be utilised by researchers. It specifically discusses philosophical worldviews which include post-positivism, social constructivism, advocacy and participatory and pragmatism. The chapter further discusses types of research design and methodology available to researchers. The concepts of the various quantitative and qualitative data analysis techniques are well explained. To refresh the minds of readers, the researcher concludes the chapter by re-stating the objectives of the research and indicates the philosophical and methodological stance adopted to achieve the aim and objectives of this research.

The first section of chapter 5 analyses qualitative data received from implementers of social marketing interventions in Ghana. The qualitative data analytic procedure is reported in a connected narrative approach and all interviews were transcribed and analysed using thematic analyses. The qualitative results reveal that the objectives of social marketing interventions on HIV/AIDS in Ghana are to encourage people to: (i) know their HIV/AIDS status, (ii) encourage condom usage, (iii) reduce stigmatisation and discrimination among people living with HIV/AIDS, (iv) prevent mother-to-child transmission, (v) promote abstinence or faithfulness to one mutual partner, and (vi) create awareness on antiretroviral therapy. The results further show that implementers of social marketing intervention programmes on HIV/AIDS in Ghana do not utilise behavioural change theories/models in planning their interventions irrespective of their usefulness in enhancing the effectiveness of any

intervention. The main challenges facing implementers include inadequate financing, health system barriers, procurement delays, lack of human resources and media misrepresentation.

Secondly, in the quantitative section, descriptive statistics such as mean, standard deviation and frequency distribution tables were employed to describe the quantitative sample data matrix in such a way as to portray the ‘typical’ respondent and to reveal the general pattern of responses. To extract the significance of the results, further analyses were carried out using cross-tabulation to determine if there is a non-monotonic relationship between two nominal variables and chi-square is used to determine whether or not there is a statistically significant association between two nominal variables. Further, a t-test was used to examine whether the means of two groups of data are significantly different from each other. The analysis of variance (ANOVA) as an extension of t-test is used to test the significant difference of means between more than two groups. Finally, correlation coefficient is employed to measure the strength of the relationship between two variables.

The results of quantitative analysis reveal that: (1) there is statistically significant difference between respondents’ current level of education and their susceptibility towards HIV/AIDS pandemic, (2) there is no statistically significant difference between age groups of respondents and their perceived behavioural control (self efficacy), (3) there is no statistically significant difference between age groups of respondents and their subjective norms, (4) there is no statistically significant relationship between respondents’ intention to perform HIV-protective behaviour and their perceived susceptibility towards the disease, (5) there is a statistically significant relationship between respondent’s HIV-protective behaviour performance and their perceived severity of the disease, (6) there is a statistically significant difference between males and females and their decision to use condom to protect themselves against HIV/AIDS, (7) there is a statistically significant difference between marital status

and their decision to use condom, (8) there is a statistically significant difference between respondents' level of education, age group and location and their medium of receiving social marketing intervention programmes on HIV/AIDS, (9) there is a statistically significant relationship between respondents' performance of HIV-protective behaviour and their response efficacy towards interventions on the pandemic, (10) there is a statistically significant relationship between respondent's HIV-protective behaviour performance and their intention to perform the behaviour, (11) there is a statistically significant relationship between respondents' HIV-protective behavioural performance and their skills and abilities, (12) there is a statistically significant relationship between respondents' HIV-protective behavioural performance and environmental factors, (13) there is statistically significant relationship between respondents' intentions to perform HIV-protective behaviours and their attitudes towards performing the behaviour, (14) there is a statistically significant relationship between respondents' intentions to perform HIV-protective behaviours and their perceived norms concerning performance of the behaviour, and (15) there is a statistically significant relationship between respondents' intentions to perform HIV-protective behaviours and their self-efficacy with respect to performing the behaviour.

The chapter 6 discusses the various findings of both qualitative and quantitative research in line with previous studies in the subject area. The chapter concludes with the similarities and differences of qualitative and quantitative research findings. The next section presents conclusions, theoretical and managerial implications of the study.

7.2: Theoretical and Managerial Implications of the Study

The theoretical and managerial implication of a doctoral thesis is of paramount interest to scholars. The thesis should, preferably, make a contribution to theory, policy, practice, or

social issues that affect people's everyday lives. It must recommend measures aimed at providing significant benefits to society (Marshall and Rossman, 2011). The next section, therefore, discusses the theoretical implications of the study.

7.2.1: Theoretical Implications

Currently, there is a considerable debate concerning whether the Integrated Behaviour Model (IBM) is applicable across population and cultures of different countries. This study, has for the first time, applied the IBM to social marketing intervention programmes on HIV/AIDS in the Ghanaian context. The IBM used as the conceptual framework of the study has generally been helpful in predicting and understanding HIV/AIDS related behaviours of Ghanaians. The study found all the constructs of Integrative Behaviour Model to be applicable to the Ghanaian situation except the relationship between individual intention and perceived susceptibility as proposed by the model. The Integrative Behaviour Model posits that perceived susceptibility is necessary before intention to changing risky behaviours can occur. It further explains that if perceived susceptibility is negative, the individual will develop negative attitude towards the recommended behaviour and therefore, will not form an intention to adopt HIV-protective behaviours. However, in the Ghanaian context, the findings do not support this and indicate that there is no relationship between intention to perform HIV-protective behaviours and perceived susceptibility. The author contends that Ghanaians' perceived vulnerability of getting HIV/AIDS do not affect their intentions to protect themselves against the disease. Based on the findings, the author concludes that IBM is generally applicable to Ghanaian situation for understanding HIV/AIDS protective behaviours. However, to help design effective social marketing interventions programmes on HIV/AIDS in Ghana, the author recommends the removal of susceptibility as a construct from IBM. The author asserts that, the modified IBM will help implementers of social

marketing intervention programmes in Ghana to facilitate an understanding of why Ghanaians are not adopting HIV/AIDS protective behaviours. It can also help pinpoint what they need to know before developing and organising effective social marketing intervention programmes on HIV/AIDS in Ghana. The next section presents the conclusions and managerial implications of the study.

7.2.2: Conclusions and Managerial Implications

This section presents the conclusions and managerial implications of the study. First, the research concludes that implementers of social marketing intervention programmes on HIV/AIDS target the entire Ghanaian population and do not design tailor-made intervention strategies/programmes for any particular group, not even for areas with high HIV/AIDS prevalence in Ghana. Though the implementers do research to understand their targeted population, they do not tailor made their interventions to suit their audience. The managerial implication is that getting customer insight through research by implementers and not utilising the information to design a tailor made interventions will render the interventions ineffective. Therefore, to design effective social marketing interventions programmes on HIV/AIDS in Ghana, the implementers should target different segments of the Ghanaian population with tailor-made interventions since mass approaches are often ineffective and inevitably, too broad to speak to anyone in any great specificity. The criteria of segments selection could be based on prevalence of the disease, significant difference between Ghanaians, and implementers' ability to reach the audience.

Second, on employing behavioural change theories to plan HIV/AIDS intervention programmes, the research concludes that implementers of social marketing intervention programmes on HIV/AIDS in Ghana do not utilise behavioural change theories/models

irrespective of their usefulness in enhancing the effectiveness of any intervention. The managerial implication is that research on target audience; barrier, benefits and competition will help deepen understanding but may not lead to behaviour change. Therefore, social marketing professionals in Ghana should take steps to understand the relevance and application of Integrated Behavioural Model (IBM) to design better intervention programmes tailored to the needs of Ghanaians. This is based on the fact that, interventions informed by theory are somewhat or clearly more effective in changing behaviour than those not based on theory. As indicated in section 7.2.1, the author is of the impression that IBM can guide implementers in the search for why Ghanaians are not adopting HIV/AIDS protective behaviours. It can also help pinpoint what they need to know before developing and organising effective social marketing intervention programmes on HIV/AIDS in Ghana.

Third, regarding challenges confronting implementers of social marketing interventions programmes on HIV/AIDS in Ghana, the research found many challenges. These include lack of adequate financing, health system barriers, procurement delays, limitation of human resources and how to get Ghanaians to know their HIV/AIDS status. The managerial implication is that, the challenges could limit the implementers from fulfilling their mandates assigned to them by Ghana government. However, many of the issues identified as challenges to change at the implementers' level are, in fact, well beyond their control and require responses at a higher level. Therefore, the author recommends that implementers should not only use social marketing interventions programmes to influence the downstream (individuals) to change their HIV/AIDS related behaviours. Rather, they should also seek to influence the upstream (policy makers, politicians, organisations and community leaders) to help them overcome most of the challenges. The Implementers could do this by designing

intervention programmes targeted at the upstream and highlighting the consequences of not supporting social marketing interventions programmes on HIV/AIDS in Ghana.

Fourth, the research found that majority of Ghanaians have seen or heard social marketing interventions on HIV/AIDS, know what they can do to prevent HIV/AIDS new infection, and have seen or heard interventions on HIV/AIDS for a long period of time. However, social marketing intervention programmes designed to change HIV/AIDS related behaviours of Ghanaians have, generally, been ineffective. This is evident in the qualitative research results, which indicates the implementers' difficulty in getting Ghanaians to know their HIV/AIDS status. The managerial implication is that if an intervention is not successful, it is not the target audience's fault. It is quite probable that the implementers do not understand Ghanaians well enough to create effective strategies. Therefore, implementers of social marketing intervention programmes on HIV/AIDS in Ghana should ascertain why most Ghanaians have not taken action to know their HIV status, for instance. This can be done by utilising research findings and application of IBM to design intervention programmes on HIV/AIDS to convert increased awareness and attitude change into behaviour change.

Fifth, the research further found that Ghanaians who are in the urban areas are more likely to know about social marketing intervention programmes on HIV/AIDS than those in the rural areas. The implication is that urban dwellers are more likely to have access to the various vehicles of communications on HIV/AIDS than their rural counterparts. Therefore, implementers should identify and use the most effective medium (media) preferred by Ghanaians. The research generally recommends radio, television, health workers, and word-of-mouth as the effective media to communicate social marketing intervention programmes on HIV/AIDS to Ghanaians. However, radio is the most effective channel to communicate

intervention programmes to Ghanaians who are in the rural areas, whilst television and radio is recommended for urban dwellers. The implementers could effectively target Ghanaians within 18-24 age group by television advertisement and those belonging to other age groups (eg. 41-49 age group) by radio.

Sixth, on respondents' current level of education and the medium of receiving social marketing interventions on HIV/AIDS, the research found that Ghanaians with tertiary education and SHS/A 'Level education receive social marketing interventions on HIV/AIDS from television, whilst respondents with no formal education and primary education receive the interventions from radio. The author concludes that as education of Ghanaians increases, their agreement to have received interventions on HIV/AIDS from television becomes stronger. The managerial implication is that implementers of social marketing interventions programmes should reach Ghanaians with higher levels of education through television, and redesign their messages with very simple but effective messages to reach those with primary or no formal education on radio.

Seventh, with reference to normative belief of respondents, the research concludes that generally, the subjective norm of Ghanaians on women seen buying or carrying condoms is positive. However, Ghanaians who are in the rural areas have negative subjective norm on women seen buying or carrying condom. They perceive women buying or carrying condom as promiscuous. The implication is that women in the rural areas are rarely able to buy or recommend condom usage to protect themselves against HIV/AIDS. Therefore, the implementers of interventions on HIV/AIDS in Ghana should design social marketing intervention programmes targeted at the rural dwellers to change this negative perception. The interventions should be designed to promote female condom usage among rural dwellers to put condom usage behaviour under the direct control of women. This is because the

research found a positive correlation between respondents' subjective norms concerning social marketing recommendations on HIV/AIDS and their intentions to adopt the recommendations. This means that Ghanaians who believe that certain referents think they should perform HIV/AIDS protective behaviour will hold a positive subjective norm. Conversely, if they believe these referents may think that performing the behaviour will have a negative subjective norm, they will not perform the behaviour in question.

Eighth, concerning perceived severity of HIV/AIDS, the research concludes that there is a positive correlation between perceived seriousness of HIV/AIDS and action to perform HIV/AIDS protective behaviours in Ghana. Though majority of Ghanaians perceive HIV/AIDS as a dangerous disease, close to 45% of them do not perceive HIV/AIDS as dangerous. Some even perceive malaria as more dangerous with the explanation that one could live with HIV for a long period of time. The managerial implication is that once Ghanaians regard HIV/AIDS as severe that could have potential serious consequences, and believe that a course of action available to them would be beneficial in reducing their risk of getting HIV/AIDS, they are more likely to take action to prevent the disease. Implementers of social marketing intervention programmes should therefore, design intervention programmes to raise perceived severity of Ghanaians on HIV/AIDS. This could be done by using interventions to raise the feelings, awareness, and seriousness of contracting HIV/AIDS and should include both medical and clinical consequences (such as death, disability, and pain) and possible social consequences (such as effects of AIDS on work, family life and social relations).

Ninth, on self-efficacy of the respondents, the research concludes that there is a correlation between respondents' intention of buying/using condoms and their ability to use condom

(self-efficacy). Overwhelming majority of Ghanaians either do not know how to use condom properly or are uncertain as to their ability to properly use condom to prevent new HIV infections. The managerial implication is that once Ghanaians do not perceive themselves capable of using condom, it is more likely they will not use condom because a person's self-efficacy, for a given behaviour dramatically affects their intention, (self-motivation) for performing that behaviour. If majority of Ghanaians feel they are capable of achieving HIV protective behaviours, then they are likely to work harder and give up less easily compared to those who have low self-efficacy. To increase self-efficacy of respondents, social marketing intervention programmes could be designed to demonstrate the proper use of condoms (both male and female) to Ghanaians. Interventions could also be designed to influence doctors, nurses and other health workers to demonstrate the use of condom to Ghanaians when they visit health facilities.

Tenth, regarding response efficacy of Ghanaians on HIV/AIDS protective behaviours, the research found a correlation between respondents' believes in condom use or restricting sex to one partner and their action to use condom or restrict sex to one partner. Majority of Ghanaians do not believe in condom use and keeping to one sexual partner as means of protecting themselves from contracting HIV/AIDS infection. Though most people do believe in abstinence as a means of protecting themselves against HIV/AIDS infection, their response efficacy has not been translated into action to abstain from sex. The author concludes that there could be some barriers they are unable to overcome. The implication is that since Ghanaians do not believe in the efficacy of condom and restricting sex to one mutual partner as HIV/AIDS preventive measures, they will not use condom or restrict sex to one partner to prevent HIV/AIDS infection. This is because the more they believe that performing the behaviour in question will lead to "good" outcomes and prevent "bad" outcomes, the more

would they develop favourable attitudes toward performing the behaviour. It was insightful to find that even though most Ghanaians use condom, they use it for reasons that might not relate to the efficacy of condom as a means of avoiding HIV/AIDS new infection. Therefore, the author recommends that social marketers on HIV/AIDS in Ghana should design intervention programmes, which define action to be taken by target population and clarify the positive effects they should expect from the interventions. The interventions should also identify barriers which may impede understanding of the recommended behaviours through reassurance and correction of misinformation.

Eleventh: concerning facilities where respondents could buy condom or know their HIV status, the research concludes that majority of Ghanaians believe that it is not difficult to locate a facility to test for HIV/AIDS or buy condoms. However, those in the rural areas are of the view that it is difficult to locate an outlet to test for HIV/AIDS or buy condom. The managerial implication is that due to the difficulty in accessing condom and HIV testing facilities, the respondents who are in the rural areas are more likely not to test for HIV/AIDS or buy condom to protect themselves against the epidemic. This is because as perceived barrier increases, condom use or going for HIV test to protect them against HIV/AIDS decreases. It is, therefore, recommended that easy access to social marketing products (facilities to buy condom or test for HIV) should be made available to Ghanaians in the rural areas, and this can include attempts to move other products that support health closer to Ghanaians.

Finally, regarding HIV/AIDS behavioural performance, the research concludes that there is difference between Ghanaians' marital status and their action to use condom to protect themselves against HIV/AIDS. Ghanaians who are in co-habitation and single are more likely to use condom than their counterparts who are married, divorced or widowed. The

implication is that, Ghanaians who are married or have once married do not see the need to use condom. This is because in Ghana, an attempt to use condom with your partner may suggest that you do not trust him/her or you are being unfaithful. Therefore, implementers of social marketing intervention programmes on HIV/AIDS should design intervention strategies targeted at the married, divorced or widowed to change this negative perception on condom use. This could be done by designing interventions to bring out the dangers of not protecting oneself even within marriages. The next section presents the limitations and recommendation for future research.

7.3 Limitations and Future Research

This section presents the limitations of the study and recommendations for future research. Firstly, this study is limited to the extent that it interviewed respondents from Lower Manya and Fanteakwa districts in the Eastern Region of Ghana even though, there are 10 Regions and 212 Municipal and District Assemblies in Ghana. This could affect the generalisation of the findings to the entire Ghanaian population. Therefore, a nationwide survey should be conducted in the future to obtain information from respondents in the various Regions, Municipal and District Assemblies.

Secondly, this study was limited to respondents within 18-49 age group without giving those belonging to other age groups the opportunity to provide their input for the study. To generalise findings to the Ghanaian population, the author further recommends that future research should obtain information from respondents of all age groups with the exception of minors.

Finally, the study applied the IBM to social marketing intervention programmes on HIV/AIDS in Ghana. The author recommends the application of IBM to other important

areas like malaria, waste management, corruption, healthy eating and exercise, road accidents, and attitude towards work.

Bibliography

- Adu-Mireku, S. (2003), Family Communication about HIV/AIDS and Sexual Behaviour Among Senior Secondary School Students in Accra, Ghana, *African Health Science*, Vol. 3 (1), pp.7-14.
- Airhihenbuwa, C.O. and Obregon, R. (2000), A Critical Assessment of Theories/Models used in Health Communication for HIV/AIDS, *Journal of Health Communication*, Vol. 5(Suppl.), pp. 5-15.
- Ajzen, I. (1991), The Theory of Planned Behaviour, *Organizational Behaviour and Human Decision Process*, Vol. 50, pp.179-211.
- Ajzen, I. (2002), Perceived Behavioural Control, Self-Efficacy, Locus of Control, and the Theory of Planned Behaviour, *Journal of Applied Social Psychology*, Vol. 32, pp.1-20.
- Ajzen, I. and Albarracin, D. (2007), Predicting and Changing Behaviour, In I Ajzen, D. Albarracin and R Hornik (eds.), *Predicting and Change of Health Behaviour: Applying the Reasoned Action Approach*, Hillsdale, N.J.: Erlbaum.
- Ajzen, I. and Fishbein, M. (1980), *Understanding Attitudes and Predicting Social Behaviour*, Englewood Cliffs, N.J.: Prentice Hall.
- Albarracin, D., Gillette, J.C., Earl, A.N., Glasman, L.R., Durantini, M.R., and Ho, M.H. (2005), A Test of Major Assumptions About Behaviour Change: A Comprehensive Look at the Effects of Passive and Active HIV-Prevention Since the Beginning of the Epidemic, *Psychological Bulletin*, Vol. 131(6), pp.856-897.
- Albarracin, D., Johnson, B. T., Fishbein, M., and Muellerleile, P. A. (2001), Theories of Reasoned Actions and Planned Behaviour as Models of Condom Use: A Meta-Analysis, *Psychological Bulletin*, Vol. 127(1), pp.142-161.
- Albarracín, D., McNatt, P. S., Klein, C. T. F., Ho, R. M., Mitchell, A. L, and Kumkale, G. T. (2003), Persuasive Communications to Change Actions: An Analysis of Behavioural and Cognitive Impact in HIV Prevention, *Health Psychology*, Vol. 22, pp166-177.
- Albaum, G. (1997), The Likert Scale Revisited: An Alternative Version, *Journal of the Marketing Research Society*, Vol. 39(2), pp.331-348
- Ammerman, A. S., Lindquist, C. H., Lohr, K. N., and Hersey, J. (2002), The Efficacy of Behavioural Interventions to Modify Dietary Fat and Fruit and Vegetable Intake: A Review of Evidence, *Preventive Medicine*, Vol. 35(1), pp.25-41.
- Amoo, T and Friedman, H. H. (2000), Overall Evaluating Rating Scales: An Assessment, *International Journal of Market Research*, Vol. 42(3), pp.301-10.
- Anderson, E. H. and Spencer, M. H. (2002), Cognitive Representations of AIDS: A Phenomenological Study, *Qualitative Research*, Vol. 12(10), pp.1338-1352.
- Andreason, A. R. (1994), Social marketing: Its definition and domain, *Journal of Public Policy and Marketing*, 13(1), pp108-114.

- Andreasen, A. (1997), Challenges for Science and Practice of Social Marketing. In M.E. Goldberg, M. Fishbein, and S.E. Midlestadt (eds.), *Social Marketing: Theoretical and Practical Perspectives*, Mahwah, NJ: Lawrence Erlbaum.
- Andreasen, A. R. (1995), *Marketing Social Change: Changing Behaviour to Promote Health, Social Development, and the Environment*. A Wiley Imprint, 989 Market Street, San Francisco, CA 94103-1741.
- Andreasen, A. R. (2001), *Ethnics in Social Marketing*, Washington, DC: Georgetown University Press.
- Andreasen, A. R. (2004), A Social Marketing Approach to Changing Mental Health Practices Directed at Youth and Adolescents, *Health Marketing Quarterly*, Vol. 21(4), pp.51–75.
- Andreasen, A. R. (2006), *Social Marketing in the 21st Century*, Thousand Oaks, CA: 91320 , Sage.
- Andreasen, A.R. (2002), Marketing Social Marketing in the Social Change Marketplace, *Journal of Public Policy and Marketing*, Vol. 21(1), pp.3–13.
- Anne-Marie, C., Sobela, F., Dzokoto, A., Nzambi, K., Asamoah-Adu, C., Annie-Claudee, L., Mâsse, B., Mensah, J., Frost, E., and Pépin, J. (2004), Transactional Sex is the Driving Force in the Dynamics of HIV in Accra, Ghana, *AIDS*, Vol. 18(6), pp.917-925.
- Armitage, C.J. and Corner, M. (2001), Efficacy of the Theory of Planned Behaviour: A Meta-Analytic Review, *British Journal of Social Psychology*, Vol. 40(4), pp.471-499.
- Aryeetey, E and Kanbur, Ravi (2008), Ghana's Economy at Half-Century: An Overview of Stability, Growth and Poverty. In E. Aryeetey and R. Kanbur (eds), *The Economy of Ghana: Analytical Perspectives on Stability, Growth and Poverty*, Woeli Publishing Services, P.O. Box NT 601, Accra New Town, Ghana.
- Aveyard, P., Cheng, K. K., Almond, J., Sherratt, E., Lancashire, R., Lawrence, T., Griffin, C., and Evans, O. (1999), Cluster Randomised Controlled Trial of Expert System Based on the Transtheoretical (Stages of Change) Model for Smoking Prevention and Cessation in Schools, *British Medical Journal*, Vol. 319(7215), pp.948–953.
- Awusabo-Asare, K and Anarfi, J.K. (1997), Postpartum Sexual Abstinence in the Era of AIDS in Ghana: Prospect for change, *Health Transition Review*, supplement to Vol. 7, pp.257-270
- Awusabo-Asare, K., Anarfi, J. K., and Agyeman, D. K. (1993), Women Control over their Sexuality and Spread of HIV/AIDS in Ghana, *Health Transition Review*, Vol. 3, Suppl. Issue1993.
- Babbie, E. (1989), *The Principles of Social Research* (5th ed.) Belmont, California: Wadsworth.
- Babbie, E. (2007), *The Practice of Social Research: International Students Edition*, Wadsworth, 10 Davis Drive Belmont, CA 94002-3098, USA.

- Bagozzi, R.P. (1975), Marketing as Exchange, *Journal of Marketing*, Vol. 39(4), pp.32–39.
- Bagozzi, R.P. (1978), Marketing as Exchange: A Theory of Transaction in a Market Place, *American Behavioural Science*, Vol. 21, pp. 535-556.
- Bagozzi, R.P. and Lee, K.H. (2002), Multiple Routs for Social Influence: The Role of Compliance, Internationalization and Social Identity, *Social Psychology Quarterly*, Vol. 65(3), pp.226-247.
- Baker, M.J. (2002), *The Marketing Book*, Oxford: Butterworth-Heinemann.
- Bandawe, C.R. and Foster, D. (1996), AIDS Related Beliefs, Attitude and Intentions Among Malawian Students in Three Secondary Schools, *AIDS Care*, Vol. 8(2), pp.223-232.
- Bandura, A. (1973), *Aggression: A Social Learning Analysis*, Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1977a), *Social Learning Theory*, Englewood Cliffs, New Jersey: Prentice Hall.
- Bandura, A. (1977b), Self-efficacy: Toward a Unifying Theory of Behavioural Change, *Psychological Review*, Vol. 84, pp.191-215.
- Bandura, A. (1986), *Social Foundations of Thought and Action: A Social Cognitive Theory*, Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1989), Social Cognitive Theory, In R. Vasta, (ed), *Annals of Child Development*, Vol. 6, pp.1-60, Greenwich, CT: Jai Press LTD.
- Bandura, A. (1991), Social Cognitive Theory of Moral Thought and Action, IN W.M. Kurtines and J.L. Gerwitz (eds), *Handbook of Moral Behaviour and Development*, Vol. 1, pp. 45-103. Hillsdale, NJ: Erlbaum.
- Bandura, A. (1997), *Self Efficacy: The Exercise of Control*, New York, W.H. Freeman.
- Bandura, A. (1999), Moral Disengagement in the Perpetration of Inhumanities, *Personality and Social Psychology Review*, Vol. 3(3), pp.193-209.
- Bandura, A. (2006), Towards a Psychology of Human Agency, *Perspectives on Psychological Science*, Vol. 1(2), pp.164-180.
- Baranowski, T., Perry, C. L., & Parcel, G. S. (2002), How Individual, Environment, and Health Behaviour Interact, In K. Glanz, B.K. Rimer, and F.M. Lewis (eds), *Health Behaviour and Health Education; Theory, Research, and Practice*. (3rd Ed.), San Francisco: Jossey-Bass.
- Bates, C.H. (2010), Use of Social Marketing Concepts to Evaluate Ocean Sustainability Campaigns, *Social Marketing Quarterly*, 16:71
- Basen-Enquist, K. (1992), Psychological Predictors of ‘Safer Sex’ Behaviours in Young Adults, *AIDS Education and Prevention*, Vol. 4, pp.120-134.
- BBC News (23rd November, 2010), www.bbc.co.uk/news/world-europe-11821422

Benefo, D. K. (2004), The Mass Media and HIV/AIDS Prevention in Ghana, *Journal of Health and Population in Developing Countries*, www.jhpdnc.unc.edu , Retrieved on 15 November, 2010.

Beresford, S. A., Curry, S. J., Kristal, A .R., Lazovich, D., Feng, Z., and Wagner, E. H. (1997), A Dietary Interventions in Primary Care Practice: The Eating Patterns Study, *American Journal of Public Health*, Vol. 87, pp.610-616.

Berg, B. (2007), *Qualitative Research Methods for the Social Sciences*, 6th ed., Pearson International, USA.

Berkowitz, A. D. (2004), *The Social Norms Approach: Theory, Research, and Annotated Bibliography*, Independent Consultant, Trumansburg, NY, 14886-0701.

Berkowitz, A.D. and Perkins, H.W. (1986), Problem Drinking Among College Students: A Review of Recent Research, *Journal of American College Health*, Vol. 35, pp.21-28.

Blair-Stevens, C., Reynold, L., and Chrisopoulos, A. (2010), Behavioural Theory: Understanding the Key Influences on Human Behaviour, In J. French, C. Blair-Stevens, D. McVey and R. Merrit (eds), *Social Marketing and Public Health: Theory and Practice*, Oxford University Press, Great Clarendon St. Oxford OX2 6DP.

Block, L.G. and Keller, P.A. (1998), Beyond Protection Motivation: An Integrative Theory of Health Appeal, *Journal of Applied Social Psychology* Vol. 28, pp.1584-1608.

Blumberg, B., Cooper, D. R., and Schindler, P. S, (2008), *Business Research Methods*, 2nd European Edition, McGraw-Hill Education, Shoppenhangers Road, Berkshire, SL6 2QL, UK.

Blumberg, B., Cooper, D. R., and Schindler, P. S. (2011), *Business Research Methods*, 3rd ed., McGraw-Hill Education, Shoppenhangers Road, Berkshire, SL6 2QL:UK.

Boer, H., and Seydel. E. R. (1996), Protection Motivation Theory, In M. Conner and P. Norman (eds.), *Predicting Health Behaviour: Research and Practice with Social Cognition Models*. Buckingham: Open University Press.

Bogart, L. M., Cecil, H., and Pinkerton, S. D. (2000), Intention to Use Female Condom among African American Adults, *Journal of Applied Social Psychology*, Vol. 30(9), pp.1923-1953.

Borsari, B. and Carey, K.B. (2001), Peer Influences on College Drinking: A Review of the Research, *Journal of Substance Abuse*, Vol. 13, pp.391-424.

Bortholomew, D. J. (2006), *Measurement*, Thousand Oak, CA: Sage

Bosompra, K. (2001), Determinants of Condom Use Intentions of University Students in Ghana. An Application of the Theory of Reasoned Action, *Social Science and Medicine*, Vol. 52, pp.1057-1069.

Bradley, N. (2007), *Marketing Research: Tools and Techniques*, Oxford University Press, Great Clarendon Street, Oxford OX2 6DP.

- Braun, V. and Clarke, V. (2006), *Using Thematic Analysis in Psychology, Qualitative Research in Psychology*, Vol. 3 (2), pp.77-101.
- Brench, P. (2002), *Research Proves the Obvious, Marketing*, March 28, pp 48.
- Brewer, N.T. and Rimer, B.K. (2008), *Perspectives on Health Behaviour Theories that Focuses on Individuals*, In K. Glanz, B.K. Rimer and K. Viswanath (eds), *Health Behaviour and Health Education: Theory, Research, and Practice*, Jossey-Bass, 989 Market Street, San Francisco, CA 94103-1741.
- Bridges, J. F. P., Searle, S. C., Selck, F. W., and Martinson, N. A. (2010), *Engaging Families in the Choice of Social Marketing Strategies for Male Circumcision Services in Johannesburg, South Africa*, *Social Marketing Quarterly*, Vol. 16(3), pp.60-76.
- Brigman, S. and Cherry, K.E. (2002), *Age and skilled performance: contributions of working memory and processing speed*, *Brain and Cognition*, Vol.50, pp. 242-256.
- Brown, K. (2005), *Snowball Sampling: Using Social Networks to Research Non-Heterosexual Women*, *Journal of Social Research Methodology*, Vol. 8(1), pp.47-60
- Brug, J., Glanz, K., Assema, P. V., Kok, G., and Van Breukelen, G.J.P. (1998), *The Impact of Computer-Tailored Feedback and Iterative Feedback on Fat, Fruits and Vegetables Intake, Health Education and Behaviour*, Vol. 25, pp.517-531.
- Bryant, C. A. (2003), *Formative Research*, Paper Presented at the 13th Annual Social Marketing in Public Health Conference, Clearwater Beach, Florida, Tampa, FL.: Florida Prevention Research Centre.
- Burger, J. M. (2000), *Crime and Violence Prevention Centre, Gangs: A Community Response*, California Attorney Generals' Office, *Personality* (5th ed), Belmont, CA: Wadsworth/Thomson.
- Burns, A. C. and Bush, R. F. (2010), *Marketing research*, 6th ed., Pearson Education, Inc. Prentice Hall, One Lake St. Upper Saddle River, New Jersey.
- Campbell, M. K., DeVellis, B. M., Strecher, V. J., Ammerman, A .S., DeVellis, R. F., and Sandler , R. S. (1994), *Improving Dietary Behaviour: The Effectiveness of Tailored Messages in Primary Care Settings*, *American Journal of Public Health*, Vol. 84, pp.783-787.
- Carbonari, J.P. and DiClemente, C.C. (2000), *Using Transtheoretical Model Profiles to Differentiate Levels of Alcohol Abstinence Success*, *Journal of Consulting and Clinical Psychology*, Vol. 68, pp.810-817.
- Cardinal, B.J. and Sachs, M.L. (1996), *Effects of Mail-Mediated, Stage-Matched Exercise Behaviour Change Strategies on Female Adults Leisure-Time Exercise Behaviour*, *Journal of Sports Medicine and Physical Fitness*, Vol. 36, pp.100-107.
- Carson, E. (1995), *Purging Binging, Reason*, Vol. 27(7), pp.61–63.
- CDC AIDS Community Demonstration Projects Research Group (1999), *Community-Level HIV Intervention in 5 Cities: Final Outcome Data from the CDC AIDS Community Demonstration Project*, *American Journal of Public Health*, Vol. 89(3), pp.336-345.

- Centres for Disease Control and Prevention (2011). Communication at CDC, Practice Areas: Social Marketing, Available at: <http://www.cdc.gov/communication/practice/socialmarketing.htm>. Accessed May, 2011.
- Chafetz, J.A. (1978), *Primer on the Construction of Theories in Sociology*, Itasca, Ill.: Peacock.
- Chambers, E. (2000), *Applied Ethnography*, In N. K. Denzin and Y. S. Lincoln (Eds.), *Handbook of Qualitative Research*, 2nd ed., Thousand Oaks, Calif.: Sage.
- Champion, V. L. and Skinner, C.L. (2008), *The Health Belief Model*, In K. Glanz, B.K. Rimer and K. Viswanath (eds), *Health Behaviour and Health Education: Theory, Research, and Practice*, Jossey-Bass, 989 Market Street, San Francisco, CA 94103-1741.
- Champion, V. L., Springston, J. K., Zollinger, T. W., Saywell Jr., R. M., Monahan, P. O., Zhao, Q., and Russell, K. M. (2000), *A Tailored Intervention for Mammography among Low-income African Women*, *Journal of Psychology Oncology*, Vol. 18(4), pp.1-13.
- Champion, V.L. (1984), *Instruments Development for Health Belief Model Constructs*, *Advance in Nursing Science*, Vol. 6(3), pp.73-85.
- Champion, V.L. and Menon, U. (1997), *Predicting Mamography and Breast Self-examination in African American Women*, *Cancer Nursing*, Vol. 20(5), pp.315-322.
- Chandler, T.A. and Spies, C. J. (1996), *Semantic Defferential Comparisons of Attributions and Dimensions among Respondents from Seven Nations*, *Psychological Reports*, Vol. 79(3), pp.747-58.
- Charmaz, K. (2000), *Grounded Theory: Obstructionist and Constructivist Methods*, In N. K. Denzin and Y. S. Lincoln (Eds.), *Handbook of Qualitative Research*, 2nd ed., Thousand Oaks, Calif.: Sage.
- Cherryholmes, C. H. (1992), *Notes on pragmatism and scientific realism*, *Educational Research*, Vol. 21(6), pp.13-17.
- Cismaru, M. and Lavack. A. M. (2007a), *Interaction Effects and Combinatorial Rules Governing Protection Motivation Theory Variables: A New Model*, in *Marketing Theory*, Vol. 7(3), pg.249-270.
- Cismaru, M., and Lavack. A. M. (2007b), *Canadian Tobacco Warning Labels and the Protection Motivation Model: Implications for Canadian Tobacco Control Policy*, *Canadian Public Policy Analyse de Politiques XXXIII*: pp.1-11.
- Cismaru, M., Lavack, A.M., Hadjistavropoulos, H., and Dorsch, K. D. (2008), *Understanding Health Behaviour: An Integrated Model for Social Marketers*, *Social Marketing Quarterly*, Vol. 14(2), pp.2-32.
- Clark, N.M. and Zimmerman, B.J. (1990), *A Social Cognitive View of Self-Regulated Learning About Health*, *Health Education Research*, Vol. 5(3), pp.371-379.
- Coffin, J. et al (1986), *What to call the AIDS virus? (Letter)*, *Nature*, 321:10

Coffman, J. (2002), *Public Communication: An environmental Scan of Challenges, Critisms, Practice, and Opportunities*, Cambridge, MA: Harvard Family Research Project.

Coomarasamy, A. and Khan. K.S. (2004), What is the Evidence that Postgraduate Teaching in Evidence Based Medicine Changes Anything? Asystematic review, *British Medical Journal* Vol. 329(7473), pp.1017.

Coreil, J., Wilke, J., and Pintado, I. (2004), Cultural Models of Illness and Recovery in Breast Cancer Support Groups, *Qualitative Health Research*, Vol. 15(70), pp.905-923.

Cottrell, R.R. and McKenzie J.F. (2005), *Health Promotion and Education Research Methods: Using the Five-Chapter Thesis/Dissertation Model*, Jones and Bartlett Publishers International, Barb House, Barb Mews London, W6 7PA: UK.

Coughlan, A. T., Anderson, E., Stern, L. W., and El-Ansary, A. I. (2001), *Marketing channels* (6th ed.), Englewood Cliffs, NJ: Prentice-Hall.

Cranney, M., Warren. E., and Barton, S. (2001), Why do GPs not Implement Evidence-Based Guidelines? A Descriptive Study, *Family Practice*, Vol. 18(4), pp.359–63.

Creswell, J. W. (2002), *Education Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*, Upper Saddle River, N.J.: Merrill/Prentice-Hall.

Creswell, J. W. (2003), *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, 2nd Edition Thousand Oaks, CA: Sage.

Creswell, J. W. (2007), *Qualitative Inquiry and Research Design: Choosing among Five Approaches*, 3rd ed., Thousand Oaks, CA: Sage.

Creswell, J. W. (2008), *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*, 3rd ed., Upper Saddle River, NJ: Merrill.

Creswell, J. W. (2009), *Research Design: Qualitative, Quantitative, and Mixed Approaches*, 3rd ed., Sage publications, Inc. 2455 Teller Road. Thousand Oaks, California 91320.

Creswell, J. W. and Plano Clark, V. L. (2007), *Designing and Conducting Mixed Methods Research*. Thousand Oaks, CA: Sage.

Creswell, J.W. (1998), *Qualitative Inquiry and Research Design: Choosing Among Five Traditions*, Thousand Oak, Calif.: Sage.

Curry, S.J., McBride, C., Grothaus, L.C., Louie, D., and Wagner, E. H. (1995), A Randomised Trial of Self-Help Materials, Personalised Feedback, and Telephone Counselling with Non-volunteer Smokers, *Journal of Consulting and Clinical Psychology*, Vol. 63, pp.175-180.

Daily Graphic, (2001), Minimum Wage now ₦5,500, May 1

Daily Graphic, (2003), New Fuel Prices are Outrageous-NDC, January 20

Dann, S. (2010), Redefining Social Marketing with Contemporary Commercial Marketing Definitions, *Journal of Business Research*, Vol. 63(1), pp.147-153.

Davis, D.A., TaylorVaisey, A. (1997), Translating Guidelines into Practice-A Systematic Review of Theoretic Concepts, Practical Experience and Research Evidence in the Adoption of Clinical Practice Guidelines, Canadian Medical Association Journal, Vol. 157(4), pp.408–16.

DeJong, W., Schneider, S. K., Towvim, L. G., Murphy, M. J., Doerr, E. E., Simonsen, N. R., . . . , Scribner, R. A. (2009), A Multisite Randomized Trial of Social Norms Marketing Campaigns to Reduce College Student Drinking: A Replication Failure, Substance Abuse, Vol.30, pp127–140.

Denscombe, M. (2003), The Good Research Guide for Small-Scale Social Research Projects, 2nd ed., Open University Press: Berkshire.

Denzin, N.K. and Lincoln, Y. S. (2000), Introduction: The Discipline and Practice of Qualitative Research. In N. D. Denzin and Y. S. Lincoln (eds.), Handbook of Qualitative Research, 2nd ed., Thousand Oak. Calif.: Sage.

Department of Health (2008), Small Change, Big Difference, London, United Kingdom.

DiClement, C.C., and Prochaska, J.O. (1982), Self Change and Therapy Change of Smoking Behaviour: A Comparison of Process of Change in Cessation and Maintenance, Addictive Behaviour, Vol. 7, 133-142.

Dijkstra A., Conijn, B., De Vries, H. A. (2006), A Match-Mismatch Test of a Stage Model of Behaviour Change in Tobacco Smoking, Addiction, Vol101, pp.1035-1043.

Dijkstra, A., De Vries, H., and Roijackers, J. (1999), Targeting Smokers with Low Readiness to Change with Tailored and Non-Tailored Self-help Materials, Preventive Medicine, Vol. 28, pp.203-211.

Dillon, A., McKnight, C., and Richardson, J. (1993), Space - the Final Chapter or Why Physical Representations are not Semantic Intentions ". In C. McKnight, A. Dillon, & J. Richardson (Eds.), Hypertext: A psychological perspective, New York: Ellis Horwood.

Donovan, R. & Henley, N. (2003), Social Marketing: Principles and Practices, Melbourne, Australia: IP Communications.

Dovlo, D. Y. (2005), Social dialogue in the health sector: Case study Ghana, International Labour Office, Geneva, 2005.

Durantini, M. R., Albarracin, D., Mitchell, A.L., Earl, A. N., and Gillette, J. C. (2006), Conceptualizing the Influence of Social Agents of Change: A Meta-Analysis of HIV Prevention Interventions for Different Groups, Psychological Bulletin, Vol. 132, pp.212-248.

Eagly, A. H., and S. Chaiken (1993), The Psychology of Attitudes, Orlando, FL: Harcourt Brace Jovanovich.

Easterby-Smith, M., Thorpe, R., and Lowe, A., (2002), Management Research: An Introduction, 2nd ed., Sage Publications Ltd.

Elder, J. P., Ayala, G. X., and Harris, S. (1999), Theories and Interventions Approaches to Health- Behaviour Changes in Primary Care, *American Journal of Preventive Medicine*, Vol. 17(4), 275-284.

Eppright, D. R., Hunt, J.B., Tanner, J.F., and Franke, G.R. (2002), Fear, Coping, and Information: A Pilot Study on Motivating a Healthy Response, *Health Marketing Quarterly* Vol. 20(1), pp.51-73.

Fay, B. (1987), *Critical Social Science*, Ithaca, NY: Cornell University Press.

Fine, S. H. (1990), *Social Marketing: Promoting the Causes of Public and Nonprofit Agencies*, Boston, MA: Allyn and Bacon.

Fishbein, M. (1967), *Reading in Attitude Theory and Measurement*, New York: Wiley.

Fishbein, M. (1993), Introduction, In D.J. Terry, C. Gallois, and M. McCamish (eds.), *The Theory of Reasoned Action: Its Application to AIDS Prevention Behaviour*. Oxford, Great Britain: Pergamon Press.

Fishbein, M. (2000), The Role of Theory in HIV Prevention, *AIDS Care*, Vol12, pp.273-278.

Fishbein, M. (2007), A Reasoned Action Approach: Some Issues, Questions, and Clarifications, In I. Ajzen, D. Albarracin, and R. Hornik (eds.), *Prediction and Change of Health Behaviour: Applying the Reasoned Action Approach*, Hillsdale, N.J.: Erlbaum.

Fishbein, M. and Ajzen, I. (1975), *Belief, Attitude, Intention and Behaviour: An Introduction to Theory and Research*, Reading Mass.: Addison Wesley.

Fishbein, M. and Cappella, J. N. (2006), The Role of Theory in Developing Effective Health Communications, *Journal of Communication* Vol. 56, pp.S1-S17.

Fishbein, M., Triandis, H. C., Kanfer, F. H., Becker, M., Middlestadt, S. E., and Eichler, A. (2001), Factors Influencing Behaviour and Behaviour Change, In A. Baum, T. R. Revenson, and J. E. Singer (Eds.), *Handbook of Health Psychology*, Mahwah, NJ: Erlbaum.

Fisher, W.A., Fisher, J.D., and Rye, B.J. (1995), Understanding and Promoting AIDS Preventive Behaviour: Insights from the Theory of Reasoned Action, *Health Psychology*, Vol14, pp.255-264.

Floyd, D. L., Prentice-Dunn, S., and Rogers, R.W. (2000), A Meta-Analysis of Research on Protection Motivation Theory, *Journal of Applied Social Psychology* Vol30: pp.407-29.

Flynn, M. F. (1995), Protection Motivation Theory and Adherence to Medical Regimens for Muscular Dystrophy, *Journal of Social and Clinical Psychology* Vol14: pp.61-75.

Forthofer, M. and Bryant, C. (2000), Using Audience-Segmentation Techniques to Tailor Health Behaviour Change Strategies, *American Journal of Health Behaviour*, Vol. 24(1), pp.36-43.

- Forthofer, M.S. (2003), Status of Mixed Methods in the Health Sciences, In A. Tashakkori & C. Teddlie (Eds.), *Handbook Of Mixed Methods in Social and Behavioural Research*, Thousand Oaks, CA: Sage.
- Fraze , J. L, Rivera-Trudeau, M, McElroy, L. (2007), Applying Behavioural Theories to a Social Marketing Campaign, *Social Marketing Quarterly*, Vol13 (1), pp.2-14.
- French J. (2009), Don't Rain on my Parade, In S. Dawson and Z.S. Morris (eds.), *Future Public Health*, Basingstoke: Palgrave Macmillan.
- French J., and Blair-Stevens, C. (2010), Key Concepts and Principles of Social Marketing in J. French, C. Blair-Stevens, D. McVey and R. Merritt (eds), *Social Marketing and Public Health: Theory and Practice*, Oxford University Press, Great Clarendon St. Oxford OX2 6DP.
- French, D. P., Sutton, S., Hennings, S. J., Mitchell, J., Wareham, N. J., Griffin, S., Hardeman, W., and Kinmonth, A. L. (2005), The Importance of Affective Beliefs and Attitudes in the Theory of Planned Behaviour: Predicting Intention to Increase physical Activity, *Journal of Applied Social Psychology*, Vol. 35(9), pp.1824-1848.
- Freud, S. (1959), The Question of Lay Analysis, In J. Strachey (ed), *The Standard Edition of the Complete Psychological Works of Sigmund Freud*. Vol. 20, London: Hogarth Press.
- Gabriel, Y. (2000), *Story Telling in Organisations: Facts, Fictions and Fantasies*, Oxford: Oxford University Press.
- Gabriel, Y. And Griffiths, D. S. (2004), Stories in Organisational Research, in C. Caswell and G. Symon (eds.), *Essential Guide to Qualitative Methods and Analysis in Organisational Research*, London: Sage.
- Garee, M. L. (1997), Statistics Don't Lie if You Know what they Really Saying, *Marketing News*, Vol. 31(19), pp.11.
- Gastil, J. (2000), Thinking, Drinking and Driving: Application of the Theory of Reasoned Action to DWI Prevention, *Journal of Applied Social Psychology*, Vol. 30(11), pp.2217-2232.
- Gay, L. R. and Airasian, P. (2003), *Educational Research: Competencies for Analysis and Applications*, 7th ed., Upper Saddle River, N.J.: Merrill/Prentice-Hall.
- Gee, J. P. (2005), *An Introduction to Discourse Analysis*, London: Sage.
- Ghana AIDS Commission (2010), *Ghana National HIV & AIDS Strategic Plan 2011-2015*.
- Ghana AIDS Commission (2012), *Ghana Country AIDS Progress Report*.
- Ghana AIDS Control Programme (2001), *HIV/AIDS in Ghana: Background, Projections, Impacts, Interventions, and Policy* (3rd Ed.).
- Ghana AIDS/ STD Control Programme (2001), *HIV/AIDS in Ghana: Background, Projections, Impacts, Interventions, and Policy*, National AIDS Control Programme, Ministry of Health, Accra, Ghana.

- Ghana AIDS/STI Control Programme, (2009), Annual Report, 2009, Ministry of Health, Accra, Ghana.
- Ghana Health Service (2009), Annual Report, Accra, Ghana.
- Ghana Statistical Service (1998), Demographic and Health Survey, USA, Macro International Inc. Calverton, Maryland.
- Ghana Statistical Service (2003), Demographic and Health Survey, USA, Macro International Inc. Calverton, Maryland.
- Ghana Statistical Service (2008), Demographic and Health Survey, USA, Macro International Inc. Calverton, Maryland.
- Ghana Statistical Service (2010), Ghana Population and Housing Census. Accra, Ghana.
- Glanz, K., Lewis, F.M., and Rimer, B.K. (1996), *Health Behaviour and Health Education: Theory, Research, and Practice*. A Wiley Imprint, 989 Market Street, San Francisco, CA 94103-1741.
- Glanz, K., Lewis, F.M., and Rimer, B.K. (2002), *Health Behaviour and Health Education: Theory, Research, and Practice*. A Wiley Imprint, 989 Market Street, San Francisco, CA 94103-1741.
- Glanz, K., Patterson, R. E., Kristal, A. R., Feng, Z., Linnan, L., Heimendinger, J., and Hebert, J. R. (1998), Impact of Work Site Health Promotion on Stages of Dietary Change: The Working Well Trial, *Health Education and Behaviour*, Vol. 25, pp.448-463.
- Glanz, K., Rimer, B.K., and Viswanath, K. (2008), *Health Behaviour and Health Education: Theory, Research, and Practice*. A Wiley Imprint, 989 Market Street, San Francisco, CA 94103-1741.
- Glassman, T. J. and Braun, R. E. (2010), Confusion Surrounding Social Marketing Strategies and Social Norm Theory: To Prevent High-Risk Drinking Among College Students, *Social Marketing Quarterly*, Vol. 16(2), 94-103.
- Glenane-Antoniadis, A., Whitwell, G. Bell, S. J. and Menguc, B. (2003), Extending the Vision of Social Marketing Through Social Capital Theory: Marketing in the Context of Intricate Exchange and Market Failure, *Marketing Theory*, Vol. 3(3), pp 323–343.
- Global Campaign for Education (2004), *Learning to Survive: How education for all would save millions of young people from HIV/AIDS*.
- Gocking, R. S, (2005), *The History of Ghana*. Greenwood press, 88 Post Road West, Westport, CT 06881, an imprint of Greenwood Publishing Group, Inc.
- Gold, D.B., Anderson, D.R., Serxner, S.A. (2000), Impact of Telephone-Based Intervention on the Reduction of Health Risk, *American Journal of Health Promotion*, Vol. 15(2),pp. 97-106.

- Goldberg, M.E. (1995), Social Marketing: Are We Fiddling While Rome Burns? *Journal of Consumer Psychology*, Vol. 4 (4), pp.347-370.
- Gordon, R., McDermott, L., Stead, M., and Angus, K. (2006), The Effectiveness of Social Marketing Interventions for Health improvement: what's the evidence? *Public Health*, Vol. 120(12), pp.1133–1139.
- Gore, T. D., and Bracken. C. C. (2005), Testing the Theoretical Design of a Health Risk Message: Re-Examining the Major Tenets of the Extended Parallel Process Model, *Health Education and Behaviour*, Vol. 32: pp.27–41.
- Government of Ghana (1996), The Ghana Health Service and Teaching Hospitals Act, 1996, Act 525. Accra: Parliament of the Republic of Ghana.
- Grbich, C. (2007), *Qualitative Data Analysis: An introduction*, London: Sage.
- Grier, S., and Bryant, C. (2005), Social Marketing in Public health, *Annual Review of Public Health*, Vol 26(6), pp1-6.21.
- Griffen, D.S. and Duley, R. (2000), Read all about it, *Quirks Marketing Research Review*, Vol. 14(7), pp 20-21, 104-106.
- Griffiths, W. (1972), Health Education Determinations, Problems, and Philosophies, *Health Education Monograph*.
- Grimshaw J.M., Shirran, L., Thomas, R., Mowatt, G., Cynthia, F., Bero, L., Grilli, R. Harvey, E., Oxman. A, and O'Brien, M.A. (2001), Changing provider behaviour-An Overview of Systematic Reviews of Interventions, *Medical Care*; Vol39 (8), pp.112-145.
- Grol, R., Bosch, M.C., Hulscher, M. E.J.L., Eccles, M.P., and Wensing, M. (2007), Planning and Studying Improvement in Patient Care: The Use of Theoretical Perspectives, *The Milbank Quarterly*, Vol. 85(1), pp.93-138.
- Gronroos, C. (1994), From Marketing Mix to Relationship Marketing: Towards a Paradigm shift in Marketing, *Management Decision*, Vol. 32(2), pp 4–20.
- GSMF International (2003), HIV/AIDS Programmes, GSMF International, Accra, Ghana.
- Guba, E. G. and Lincoln, Y. S. (1994), Competing Paradims in Qualitative Research " in *Handbook of Qualitative Research*, N. K. Denzin and Y. S. Lincoln (eds.), Sage. Thousand Oaks, pp. 105-117.
- Guest, G., Bunce, A., and Johnson, L. (2006), How Many Interviews are Enough? An Experiment with Data Saturation and Variability, *Field Methods*, Vol. 18(1), pp.59-82.
- Gunnar, K. (2000), The Level Based Stratified Sampling Plan, *Journal of the American Statistical Association*, Vol. 95 (452), pp.1185-91.

Gurses, A. P., Seidl, K. L., Vaidya, V., Bochicchio, G., Harris, A. D., Hebden, J., and Xiao, Y. (2008), Systems Ambiguity and Guideline Compliance: A Qualitative Study of how Intensive Care Units Follow Evidence-Based Guidelines to Reduce Healthcare-Associated Infections, *Quality and Safety in Health Care*, Vol. 17(5), pp.351–359.

Haines, M. (1998), Social Norms: A Wellness Model for Health Promotion in Higher Education, *Wellness Management*, Vol. 14, pp.1–10.

Haines, M., and Spear, S. F. (1996), Changing the Perception of the Norm: A Strategy to Decrease Binge Drinking among College Students, *Journal of American College Health*, Vol. 45(3), pp.134–140.

Hall, K.L., and Rossi, J.S. (2008), Meta-Analytic Examination of the Strong and Weak Principles across 48 Health Behaviours, *Preventive Behaviours*, Vol. 46, pp.266-274.

Hall, S. M., Tsoh, J. Y., Prochaska, J. J., Eisendrath, S., Rossi, J. S., Redding, C. A., Rosen, A.B., Meisner, M., Humfleet, G. L., and Gorecki, J. A. (2006), Treatment of Depressed Mental Health Outpatients for Cigarette Smoking: A Randomised Clinical Trial, *American Journal of Public Health*, Vol. 96(10), pp.1808-1818.

Hansen, W.B. and Graham, J.W. (1991), Preventing Alcohol, Marijuana, and Cigarette Use Among Adolescents: Peer Pressure Resistance Training Versus Establishing Conservative Norms, *Preventive Medicine*, Vol. 20, pp.414-430.

Hardeman, W., Sutton, S., Griffin, S., Johnston, M., White, A.J., Wareham, N.J., And Kinmonth, A.L. (2005), A Causal Modelling Approach to the Development of Theory-Based Behaviour Change Programmes for Trial Evaluation, *Health Education Research*, Vol. 20(6), pp.676-687.

Harris, A. (2010), AIDS Promotion within the Black Church: Social Marketing in Action, *Social Marketing Quarterly*, Vol. 16(4), pp.71- 91.

Hastings, G. (2003), Competition in Social Marketing, *Social Marketing Quarterly*, Vol. 9(3), pp.6-10.

Hastings, G. (2003b), Relational Paradigms in Social Marketing, *Journal of Macromarketing*, Vol.23(1), pp 6–15.

Hastings, G. (2007), *Social Marketing: Why Should the Devil Have all the Best Tunes? The Boulevard*, Langford Lane, Kidlington, Oxford, OX5 1GB.

Hastings, G. And Donovan, R. J. (2002), International Initiatives: Introduction and Overview, *Social Marketing Quarterly*, Vol. 8(1), pp.2-4.

Hastings, G., Stead, M., and Webb, J. (2004), Fear Appeals in Social Marketing: Strategic and Ethical Reasons for Concern, *Psychology and Marketing*, Vol. 21, pp.961–86.

Hellebusch, S. J. (2001), One Chi Square Beats Two z Test, *Marketing News*, Vol. 35(12), pp.11-13.

Hellebusch, S. J. (2000). Don't Read Research by the numbers, *Marketing News*, Vol. 34(19), pp.25.

Henry, G.T., and Rivera, M. (1998), Public information campaigns and changing behaviours. Paper presented at the meeting of the Association for Public Policy Analysis and Management, New York.

Heron, J., Reason, P. (1997). A Participatory Inquiry Paradigm, *Qualitative Inquiry*, Vol. 3, pp.274-294.

Ho, R. (1998), The Intention to Give up Smoking: Disease Versus Social Dimensions, *Journal of Social Psychology*, Vol. 138, pp.368–80.

Hollis, J. F., Polen, M. R., Whitlock, E. P., Lichtenstein, E., Mullooly, J. P., Velicer, W. F., and Redding, C. A. (2005), Teen REACH: Outcomes from a Randomised Controlled Trial of a Tobacco Reduction Programme for Teens Seen in Primary Medical Care, *Paediatrics*, Vol. 115(4), pp.981-989.

Holsti, O.R. (1969), *Content Analysis for the Social Sciences and Humanities*, Reading, MA: Addison-Wesley.

Honold, C. (2000), Culture and Context: An Empirical Study for the Development of a Framework for the Elucidation of Cultural Influence in Product Usage, *International Journal of Human Computer*, Vol 12, pp.327-345.

Horwarth, C.C. (1999), Applying the Transtheoretical Model to Eating Behaviour Change: Challenges and Opportunities, *Nutrition Research Review*, Vol. 12, pp.281-317.

Hosegood V. et al. (2004), The impact of adult mortality on household dissolution and migration in rural South Africa', *AIDS*, July 23rd, Vol. 18, issue 11.

Hounton, S. H., Carabin, H., and Henderson N. J. (2005), Towards an Understanding of Barriers to Condom Use in Rural Benin Using the health Believe Model: A Cross Sectional Survey, *BMC Public Health*, 5:8.

Hubley, J. (1993), *Communicating Health: An Action Guide to Health Education and Health Promotion*, Macmillan, London.

Huchbaum, G.M. (1958), *Public Participation in Medical Screen Programs: A Socio-Psychological Study*, Washinton DC, US Dept. of Health, Education and Welfare.

Hycner, R.H. (1985), Some Guidelines for the Phenomenological Analysis of Interview Data, *Human Studies*, Vol. 8, pp.279-303.

Hymes K.B. et al. (1981), Kaposi's sarcoma in homosexual men: A report of eight cases', *Lancet* 2:598-600.

Icobucci, D. and Churchill, G. A. (2010), *Marketing Research: Methodological Foundations*, 10th ed., South-Western Cengage Learning, Inc. P.O. Box 6904 Florence, KY 41022-6904.

Institute of Medicine, USA (2002), *Committee on Communication for Behaviour Change in the 21st Century: Improving the Health of Diverse Population*, Speaking of Health: Assessing Health Communication Strategies for Diverse Population. Washington DC: National Academic Press.

Inter Press Service News Agency (May 2006), Health South Africa: a Burden that will only become Heavier.

Isaac, S. and Michael, W.B. (1995), Handbook of Research and Evolution (3rd ed.), San Diego: Evolutional and industrial Testing Services.

Jaccard, J., Dodge, T., and Dittus, P. (2002), Parent-Adolescent Communication about Sex and Birth Control: A conceptual Framework. In S. Feldman and D.A. Rosenthal (eds.), Talking Sexuality: Parent-Adolescent Communication, New Direction in Child and Adolescent Development, No. 97, W. Damon, Editor-in-Chief, San Francisco: Jossey-Bass.

Janz, N.K., and Becker, M.H. (1984), The Health Belief Model: A Decade Later, Health Education Quarterly, Vol. 11(1), pp.1-47.

Jemmott, J.B. and Jemmott, L.S. (2000), HIV Risk Reduction Behavioural Intentions with Heterosexual Adolescent, AIDS, Vol. 14(Suppl. 2), pp.S40-S52.

Jesson, J. (2009), Household Waste Recycling Behavior: A Market Segmentation Model, Social Marketing Quarterly 2009 15: 25

Jibawi, A., Selvachandran, S., Williams, R., and Vaughan-Williams, E. (2008), Has Reconstruction Practice in England and Wales Following Mastectomy Operations for Breast Cancer Changed after Publishing NICE Guidelines: A 6-Year Analysis of Hospital Admission Data, Breast Journal, Vol. 14(1), pp.114-5.

Kalichman, S.C. (2007), The Theory of Reasoned Action and Advances in HIV/AIDS, In I Ajzen, D. Albarracin, and R. Hornik (eds.), Prevention and Change of Health Behaviour: Applying The Reasoned Action Approach. Hillsdale, N.J.: Erlbaum.

Kamb, M. L., Fishbein, M., Douglas, Jr, J. M., Rhodes, F., Rogers, J., Bolan, G., Zenilman, J., Hoxworth, T., Kevin Malotte, C., Iatesta, M., Kent, C., Lentz, A., Graziano, S., and Byers, R. H. (1998), Efficacy of Risk-Reduction Counselling to Prevent Human Immunodeficiency Virus and Sexually Transmitted Diseases, Journal of the American Medicine Association, Vol. 280(13), pp.1161-1167.

Kasprzyk, D., Montano, D. E., and Fishbein, M. (1998), Application of an Integrated Behavioural Model to Predict Condom Use: A Prospective Study Among HIV Risk Groups, Journal of Applied Social Psychology, Vol. 28 (17), pp.1557-1583.

Kasprzyk, D., and Montano, D. E. (2007), Application of an Integrated Behavioural Model to Understand HIV Prevention Behaviour of High Risk Men in Rural Zimbabwe. In I. Ajzen, D. Albarracin, and R. Hornik (eds.), Prediction and Change of Health Behaviour: Applying the Reasoned Action Approach, Hillsdale, N.J.: Erlbaum.

Kegler, M.C. and Wyatt, V.H. (2003), A Multiple Case Study of Neighbourhood Partnerships for Positive Youth Development, American Journal of Health Behaviour, Vol. 27, pp.156-169.

Kelly, J. A., Murphy, D. A., Sikkema, K. J., and Kalichman, S. C. (1993), Psychological Intervention to Prevent HIV Infections are Urgently Needed: New Priorities for Behavioural

Research in the Second Decade of AIDS, *American Psychologist*, Vol. 48 (10), pp.1023-1034.

Kemmis, S., and Wilkinson, M. (1998), *Participatory Action Research and the Study of Practice*. In B. Atweh, S. Kemmis, & P. Weeks (eds.), *An Action Research in Practice: Partnerships for Social Justice in Education*, NY: Routledge.

Kenski, K., Appleyard, J., Von Haeften, I., Kasprzyk, D., and Montano, D. (2001), Theoretical Determinants of Condom Use Intentions for Vaginal Sex with regular Partner Among Male and Female Injecting Drug Users, *Psychology, Health and Medicine*, Vol. 6(2), pp.179-190.

Kerlinger, F.N. (1986), *Foundations of Behavioural Research* (3rd ed.) NY: Holt, Rinehart and Winston.

Kok, G., Schaalma, H., de Vries, H., Parcel, G., and Paulussen, T. H. (1996), Social Psychology and Health Education, *European Review of Social Psychology*, Vol. 7, pp.241-282.

Kotler P, Zaltman G. (1971), Social Marketing: An Approach to Planned Social Change, *Journal of Marketing*, Vol. 35(3), pp.3-12.

Kotler, P and Lee, N. R. (2008), *Social Marketing: Influencing Behaviours for Good* (3rd Ed), Sage Publication, Inc. 2455 Teller Road, Thousand Oaks, California 91320.

Kotler, P. (1972), A Generic Concept of Marketing, *Journal of Marketing*, Vol. 36, pp.46-54.

Kotler, P. and Lee, N. (2006), *Marketing in the public Sector: A Road Map for Improved Performance*, Upper Saddle River, NJ: Wharton School.

Kotler, P., & Roberto, E. L. (1989), *Social Marketing: Strategies for Changing Public Behaviour*, New York, NY: Free Press.

Kotler, P., and Andreasen, A. R. (1996), *Strategic Marketing for Non-Profit Organizations* (5th ed.), Upper Saddle River, NJ: Prentice Hall.

Kotler, P., Roberto N. And Lee, N. (2002), *Social Marketing: Improving the Quality of Life*, Thousand Oaks, CA: Sage.

Kreuter, M. and Strecher, V.J. (1996), Do Tailored Behaviour Change Messages Enhance the Effectiveness of Health Risk Appraisal? Results from a Randomised Trial, *Health Education Research*, Vol. 11, pp.97-105.

Krueger, A. and Casey, A. (2000), *Focus Groups: A Practical Guide for Applied Research*, Thousand Oaks, Calif.: Sage.

Kunfaa, E.Y. (1996), *Sustainable Rural Health Services through Community-Based Organisations*, Spring Research Series No.16, University of Dortmund, Dortmund.

Lang, E.S., Wyer, P. C., Haynes, R. B. (2007), Knowledge Translation: Closing the Evidence-to-Practice Gap, *Annals of Emergency Medicine*; Vol. 49(3), pp.355-63.

Lapinski, M. K. and Witte, K. (1998), Health Communication Campaigns, In L. D. Jackson and B. K. Duffy (eds.), *Health Communication Research: A Guide to Developments and Directions*, Westport, CT: Greenwood Press=Greenwood Publishing Group.

Laraque, D., Mclean, D. E., Brown-Peterside, P., Ashton, D., and Diamond, B. (1997), Predictors of Reported Condom use in Central Harlem Youth as Conceptualised by the Health Belief Model, *Journal of Adolescent Health*, Vol. 21(5), pp.318-327.

Lawrence, J. S. (1995), Theoretical Models Applied to AIDS Prevention, In A. J. Goreczny (ed.), *Handbook of Health and Rehabilitation Psychology*, New York: Plenum Press.

Lazer, W. and Kelly, E. (1973), *Social Marketing: Perspective and Viewpoints*, Homewood. IL: Richard D. Irwin.

Likert, R. (1932), A Technique for the Measurement of attitudes. *Archives of Psychology*, 140

Lin, P., Simoni, J. M., and Zemon, V. (2005), The Health Believe Model, Sexual Behaviours, and HIV Risk among Taiwanese Immigrants, *AIDS Education and Prevention*, Vol. 17(5), 469-483.

Linkenbach, J. W. (1999), Application of Social Norms Marketing to a Variety of Health Issues, *Wellness Management*, Vol. 15(3) [entire issue].

Lotenberg, L.D. (2010), Place: Where the Action is, *Social Marketing Quarterly*, 16: 130.

MacAskill, S., Stead, M., MacKintosh, A. M., and Hastings, G. (2002), You Cannae Just Take Cigarettes Away from Somebody and No'gie Them Something Back: Can Social Marketing Solve the Problem of Low-Income Smoking? *Social Marketing Quarterly*, Vol. 8(1), pp.19–34.

MacCommack Brown, K. (2005), Qualitative Research Methods, in R.R. Cottrell, and J.F. McKenzie (eds), *Health Promotion and Education Research Methods: Using the Five-Chapter Thesis/Dissertation Model*. Jones and Bartlett Publishers International, Barb House, Barb Mews London W6 7PA: UK.

MacFadyen, L. et al., (2003), Social Marketing, In Baker, M. J. (ed), *The Marketing Book*, 5th Edition. Oxford: Butterworth Heinemann.

MacFadyen, L., Stead, M., Hastings, G.B. (1999), *A Synopsis of Social Marketing*, Stirling: University of Stirling; Marketing. Available at:
http://www.ISM.stir.ac.uk/pdf_docs/social_marketing.pdf. Assessed on 26th July, 2011.

Mah, M. W., Deshpande, S., Rothschild, M. L. (2006), Social Marketing: A Behaviour Change Technology for Infection Control, *American Journal of Infection Control*, Vol. 34(7), pp.452–7.

Mahoney, C. A., Thombs, D. L., and Ford, O. (1995), Health Belief and Self-Efficacy Models: Their Utility in Explaining College Students Condom Use, *AIDS Education and Prevention*, Vol. 7, pp.32-49.

- Maibach, E., Rothschild, M.L., and Novelli, W.D. (2002), *Social Marketing* In K. Glanz, B.K. Rimer, and F.M. Lewis (eds), *Health behaviour and Health Education: Theory, Research, and Practice*, San Francisco: Jossey-Bass.
- Malhotra, N. K. (2007). *Marketing Research: An Applied Orientation*, 5th ed., Pearson Education, Inc. Upper Saddle River, New jersey 07458.
- Malhotra, N. K. and McCort, D.J. (2001), *A Cross-Cultural Comparison of Behavioural Intention Models: Theoretical and an Empirical Investigations*, *International marketing Review*, Vol. 18(3), pp.235-269.
- Malhotra, N. K., (2004), *Marketing Research an Applied Orientation*, International Edition, 4th ed., Pearson Education Ltd., New Jersey, NY., USA.
- Mann, J. M. (1989) , *AIDS: A worldwide pandemic*, in M.S. Gottlieb, D.J. Jeffries, D. Mildvan, A.J. Pinching, and T.C. Quinn (Eds), *Current Topics in AIDS*, vol. 2: John Wiley & Sons.
- Marcus, B. H., Bock, B. C., Pinto, B. M., Forsyth, L. H., Roberts, M., and Traficante, R. (1998), *Efficacy of an Individualised, Motivationally-Tailored Physical Activity Intervention*, *Annals of Behavioural Medicine*, Vol. 20, pp.174-180.
- Marshall, C. and Rossman, G.B. (2011), *Designing Qualitative Research* (5th Ed.), SAGE Publications, Inc. 2455 Teller Road, Thousand Oaks, California 91320.
- Matheison, K., Peacock, E. and Chin, W.W. (2001), *Extending the Technology Acceptance Model: The influence of perceived user resources*, *The Data Base for Advance in Information systems*, Summer, Vol. 32 (3), pp. 86 – 112.
- Matthews, B. and Ross, L. (2010), *Research Methods: A Practical Guide for the Social Sciences*, Pearson Education Limited, Edinburgh Gate, Harlow, Essex CM20 2JE, England.
- McAlister, A. L., Perry, C.L., and Parcel, G.S. (2008), *How Individuals, Environments, and Health Behaviours Interact: Social Cognitive Theory*, In K. Glanz, B.K. Rimer and K. Viswanath (eds), *Health Behaviour and Health Education: Theory, Research, and Practice*. Jossey-Bass, 989 Market Street, San Francisco, CA 94103-1741.
- McDermott, L. M., Stead, M., Hastings, G. B. (2005), *What is and what is not Social Marketing: The Challenge of Reviewing the Evidence*, *Journal of Marketing Management* , Vol. 5(6) , pp.545–53.
- McKenzie-Mohr, D. (2011), *Community Based Social Marketing: Quick Reference*, Retrieved from <http://www.cbsm.com/reports/cbsm.pdf> on 28th May, 2011.
- McKenzie-Mohr, D. and Smith, W. (1999), *Fostering Sustainable Behaviour through Community-Based Social Marketing*, *American Psychologist*, Vol. 55(5), pp.531-537.
- McKinlay, J.B., and Marceau, L.D. (2000), *Upstream Healthy Public Policy: Lessons from the Battle of Tobacco*, *International Journal of Health Services*, Vol. 30(1), pp.351-377.

- Merten, D. M. (2003), Mixed Methods and the Politics of Human Research: The Transformative-Emancipatory Perspective, In A. Tashakkori & C. Teddlie (Eds.), Handbook of mixed methods in the social & behavioural science, Thousand Oaks, CA: Sage.
- Mertens, D. M. (1998), Research methods in education and psychology: Integrating diversity with quantitative and qualitative approaches. Thousand Oaks, CA: Sage.
- Michie, S. and Abraham, C. (2004), Interventions to Change Health-related Behaviour: A Meta-Analytic Review of Protection Motivation Theory, Journal of Applied Social Psychology, Vol. 30, pp.106-43.
- Mick, P. C. (2000), Web Survey: A Review of Issues and Approaches, Public Opinion Quarterly, Vol. 64(4), pp.464-94.
- Milat, A. J., Stubbs, J., Engelhard, S., Weston, P., Giles-Corti, B., and Fitzgerald, S. (2002), Measuring Physical Activity in Public Open Space: An Electronic Device versus Direct Observation, Australian and New Zealand Journal of Public Health Vol. 26 (1), pp.50-51.
- Milne, S., Sheeran, P., and Orbell, S. (2000), Prediction and Intervention in Health Related Behaviour: A Meta-Analytic Review of Protection Motivation Theory, Journal of Applied Social Psychology, Vol. 30, pp.106–43.
- Ministry of Finance and Economic Planning (2011), 2011 Budget statement, Accra, Ghana.
- Ministry of Health (1997), The Medium Term Health Strategy 1997-2001, Ministry of Health, Accra, Ghana.
- Ministry of Health (2002), 5 years Programme of Work 2002-2006, Ministry of Health, Accra, Ghana.
- Ministry of Health (2007), 5-Year Programme of Work 2007 – 2011, Ministry of Health, Accra, Ghana.
- Ministry of Health (2009), Independent Review: Health Sector Programme of Work 2009, Accra, Ghana
- Ministry of Health (2012), 5-Year Programme of Work 2012 – 2016, Ministry of Health, Accra, Ghana.
- Ministry of Local Government and Rural Development, (2008, 2012). The Structure of the Ghanaian Local Government Systems, 2008 edition.
- Misler, E. (1990), Validation in inquiry-guided research: the role of exemplars in narrative studies, Harvard Educational Review, Vol. 33 (1), pp.415-42.
- MMWR Weekly (1981a), Kaposi's Sarcoma and Pneumocystis Pneumonia among Homosexual Men- New York City and California, Vol. 30 (4), pp.305-308.

MMWR Weekly (1981b), Pneumocystis Pneumonia- Los Angeles, Vol. 30 (21); 1-3.

Montano, D.E. and Kasprzyk, D. (2008), Theory of Reasoned Action, Theory of Planned Behaviour, and the Integrated Behaviour Model, In K. Glanz, B.K. Rimer and K. Viswanath (eds), Health Behaviour and Health Education: Theory, Research, and Practice (4th Ed.), A Wiley Imprint, 989 Market Street, San Francisco, CA 94103-1741.

Morgan, D. (2007), Paradigm Lost and Paradigm Regained: Methodological Implications of Combining Qualitative and Quantitative Methods, Journal of Mixed Methods Research, Vol. 1(1), pp.48-76.

Morris, M. and Venkatesh, V. (2000), Age Difference in Technology Adoption Decision: Implications for a Change Workforce, Personal Psychology, Vol. 53, pp. 375-403

Morris, Z. S. And Clarkson, P. J. (2009), Does Social Marketing Provides a Framework for Changing Healthcare Practice? Health Policy, Vol. 91, pp.135-141.

Moustakas, C. (1994), Phenomenological Research Methods, Thousand Oaks, CA: Sage.

Murphy, J. P. (1990), Pragmatism: From Peirce to Davidson, Boulder, CO: Westview

Naikoba, S, Hayward, A. (2001), The Effectiveness of Interventions Aimed at Increasing Hand Washing in Healthcare Workers-A Systematic Review, Journal of Hospital Infection, 47(3):173–80.

National AIDS Control Program (2006), Behavioural Surveillance Survey, National AIDS/STD Control Programme, Ministry of Health, Ghana.

National AIDS Control Programme (2005), HIV Sentinels Survey Report , National AIDS/STD Control Programme, Ministry of Health, Ghana.

National AIDS Control Programme (2008), HIV sentinels Survey Report, Ministry of Health, Accra.

National AIDS Control Programme (2009), Annual Report, National AIDS/STD Control Programme, Ministry of Health, Ghana.

National AIDS Control Programme (2009), HIV Sentinels Survey Report, National AIDS/STD Control Programme, Ministry of Health, Ghana.

National AIDS Control Programme (2012), HIV Sentinels Survey Report, National AIDS/STD Control Programme, Ministry of Health, Ghana.

National Consumer Council (NCC) and Department of Health (DH) (2005), National Social Marketing Strategy for Health: Realising the Potential of Effective Social Marketing, London.

National Institute on Alcohol Abuse and Alcoholism (2002). A call to Action: Changing the Culture of Drinking at U.S. Colleges,
http://www.collegedrinkingprevention.gov/NIAAACollegeMaterials/TaskForce/TaskForce_TOC.aspx. Accessed on 26th October, 2011.

- Neuman, W. L. (2000), *Social Research Methods: Qualitative and Quantitative Approaches*, 4th ed., Boston: Allyn & Bacon.
- Neutens, J. J. and Robinson, L. (2002), *Research Techniques for the Health Sciences*, 3rd ed., San Francisco: Benjamin Cummings.
- Niblett, G. R. (2005), *Stretching the Limits of Social Marketing Partnerships, Upstream and Downstream: Setting the Context for the 10th Innovation in Social Marketing Conference*, *Social Marketing Quarterly*, Vol. 11(3), pp.9-15.
- Niblett, G.R. (2007), *It is All about the Customer: Context for the 11th Annual Innovations in Social*, *Social Marketing Quarterly*, Vol. 13(3), pp.6-11.
- Nieswiadomy, R.M. (1993), *Foundation of Nursing Research*, 2nd ed., Norwalk, CT: Appleton and Lange.
- Noar, S.M. (2008), *Behavioural Intentions to reduce HIV-related Sexual Risk Behaviour: Review and Synthesis of Meta-Analytic Evidence*, *AIDS and Behaviour*, Vol. 12 (3), pp.335-353.
- Noar, S.M. and Zimmerman, R.S. (2005), *Health Behaviour Theory and Cumulative Knowledge Regarding Health Behaviour; Are we Moving in the Right Direction?* *Health Education Research*, Vol. 20, pp.275-290.
- Noar, S.M., Benac, C. N., and Harris, M. S. (2007), *Does Tailoring Matter? Meta-Analytic Review of Tailored Print Health Behaviour Change Interventions*, *Psychological Bulletin*, Vol. 133 (4), pp.673-693.
- O' Rourke, T. W. (1999), *The Importance of an Adequate Survey Response Rate and Ways to Improve it*, *American Journal of Health Studies*, Vol. 15(2), pp.107-109.
- Ofir, C. And Simonson, I. (2001), *In Search of Negative Customer Feedback: The Effect of Expecting to Evaluate on Satisfaction Evaluations*, *Journal of Marketing Research*, Vol. 38, Pp.170-82.
- O'Neill, H.K., Gillispie, M.A., and Slobin, K. (2000), *Stages of Change and Smoking Cessation: A Computer Administered Intervention Programme for Young Adults*, *American Journal of Health Promotion*, Vol. 15 (2), pp.93-96.
- Ozgur, C. and Strasser, S. (2004), *A Study of the Statistical Inference Criteria: Can we Agree on When to Use z versus t?*, *Decision Sciences Journal of Innovative Education*, Vol. 2 (2), pp.177-192.
- Pallant, J. (2010), *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS (4th Ed.)*, Open University Press, McGraw-Hill Education, Berkshire-England: SL6 2QL.
- Pallonen, U.E., Velicer, W.F., Prochaska, J.O., Rossi, J.S., Bellis, J.M., Tsoh, J.Y., and Prokhorov, A.V. (1998), *Computer-based Smoking Cessation intervention in Adolescents: Description, Feasibility, and Six Months Follow-up Findings*, *Substance Use and Misuse*, Vol. 33, pp.935-965.

Panford, S., Nyaney, M .O., Amoah, S. O., and Aidoo, N. G. (2001), Using Folk Media in HIV/AIDS Prevention in Rural Ghana, *American Journal of Public Health*, Vol. 91(10), pp.1559-1562.

Panford, S., Ofori, N. M., Opoku, A .S., and Garbrah, A. N. (2001), Using folk Media in HIV/AIDS Prevention in Rural Ghana, *American Journal of Public Health*, Vol. 91(10), pp.1559-62.

Parsons, J.T., Huszti, H.C., Crudder, S., Rich, L., and Mendoza, J. (2000), Maintenance of Safer Sexual Behaviour: Evaluation of a Theory-Based Intervention for HIV Seropositive Men with Haemophilia and their Female Partners, *Haemophilia*, Vol. 6(3), pp.181-190.

Patton, G et al (2009, 12th September), Global Patterns of Mortality in Young People: a Systematic Analysis of Population Health Data, *The Lancet* Vol. 374(9693).

Patton, M. Q. (2002), Variety of inquiry: Theoretical Orientation, In *Qualitative research and evaluation methods*, 3rd ed., Thousand Oaks, CA: Sage.

Peattie, S. (1999), The Use of Sales Promotion Competitions in Social Marketing, *Social Marketing Quarterly*, 5: 22

Pealtie, S. and Pealtie, K. (2003), Ready to fly Solo? Reducing Social Marketing's Dependence on Commercial Marketing Theory, *Marketing Theory Articles*, Vol. 3(3), pp.365-385.

Perkins, H. W. (2002), Social Norms and the Prevention of Alcohol Misuse in Collegiate Contexts, *Journal of Studies on Alcohol*, Vol. 14(Supl.), pp.164–172.

Perkins, H. W., and Berkowitz, A. D. (1986), Perceiving the Community Norms of Alcohol use Among Students: Some Research Implications for Campus Alcohol Education Programming, *International Journal of Addictions*, Vol. 21, pp.961–976.

Perkins, H.W. (2003), *The Social Norms Approach to Preventing School and College Age Substance Abuse: A Handbook for Educators, Counsellors, Clinicians*, San Francisco, Jossey-Bass.

Peterson, R. A. (2001), The Use of College Students in Social Science Research: Insights from a Second-Order Meta-Analysis, *Journal of Consumer Research*, Vol. 28(3), 450-461.

Phillips, D. C. And Burbules, N. C. (2000), *Post-positivism and Education Research*. Lanham, NY: Rowman & Littlefield.

Phillips, K. A., Kerlikowske, K., Baker, L. C., Chang, S. W., and Brown M. L. (1998), Factors Associated with Women's Adherence to Mammography Screening Guidelines, *Health Services Research*, Vol. 33(1), pp.29-53.

Pickton, D. and Broderick, A. (2005), *Integrated Marketing Communication*, 2nd ed., Pearson Education Ltd, Harlow: FT Prentice Hall.

Poduri, S. R. (2001), *Sampling Methodologies with Applications*. Boca Raton, FL: CRC Press.

Prochaska, J. O., and DiClement, C.C. (1982), *Transtheoretical Therapy: Toward a more Integrative Model of Change, Psychotherapy, Theory, Research, and Practice*, Vol19, pp.276-288.

Prochaska, J. O., and DiClement, C.C. (1983), *Stages and Processes of Self-Change of Smoking: Towards an Integrative Model of Change*, *Journal of Consulting and Clinical Psychology*, Vol. 51, pp.390-395.

Prochaska, J. O., Wright, J. A., Velicer, W. F. (2008a), *Evaluating Theories of Health Behaviour Change: A Hierarchy of Criteria Applied to the Transtheoretical Model*, *Applied Psychology*, Vol. 57(4), pp.561-588.

Prochaska, J.O. (1984), *System of Therapy: A Transtheoretical Analysis*, (2nd ed), Pacific Grove, California: Brooks-Cole.

Prochaska, J.O., DiClemente, C.C., and Norcross, J.C. (1992), *In Search for How People Change*, *American Psychologist* Vol. 47(9), pp.1102-1114.

Prochaska, J.O., Redding, C.A., and Kerry, E.E. (2008b), *The Transtheoretical Model and Stage of Change*, In K. Glanz, B.K. Rimer and K. Viswanath (eds), *Health Behaviour and Health Education: Theory, Research, and Practice* (4th Ed.), A Wiley Imprint, 989 Market Street, San Francisco, CA 94103-1741.

Prochaska, J.O., Velicer, W.F., Fava, J.L., Rossi, J.S., and Tsoh, J.Y. (2001a), *Evaluating a Population-based Recruitment Approach and a Stage-based Expert System Intervention for Smoking, Addictive Behaviours*, Vol. 26, pp.583-602.

Prochaska, J.O., Velicer, W.F., Fava, J.L., Ruggiero, L., Laforge, R.G., Rossi, J.S., Johnson, S.S., and Lee, P. A. (2001b), *Counsellor and Stimulus Control Enhancements of a Stage-Matched Expert System Intervention for Smokers in a Managed Care Setting*, *Preventive Medicine*, Vol. 32(1), pp.23-32.

Project Match Research Group (1997), *Matching Alcoholism Treatments to Client Heterogeneity: Project MATCH Post Treatment Drinking Outcomes*, *Journal of Studies on Alcohol*, Vol. 58, 7-29.

Redding, C.A., Morokoff, P.J., Rossi, J.S., Meier, K. S. (2007), *A TTM-Tailored Condom Use Intervention for At-risk Women and Men*, In T. Edgar, S.M. Noar, and V. Freimuth (eds.), *Communication Perspectives on HIV AIDS for the 21st Century*, Hillsdale, N.J.: Erlbaum.

Reisenwitz, T. H. and Wimbish Jnr, G. J. (1996), *Over-the-Counter Pharmaceuticals: Exploratory Research of Consumer Preferences Towards Solid Oral Dosage Forms*. *Health Marketing Quarterly*, Vol. 13(4), pp.47-61.

Rhodes, F., Stein, J. A., Fishbein, M., Goldstein, R. B., Rotheram-Borus, M. J. (2007), *Using Theory to Understand How Interventions Work, Project RESPECT, Condom Use and the Integrative Model*, *AIDS and Behaviour*, Vol. 11(3), pp.393-407.

Robbins, M.L., Levesque, D.A., Redding, C.A., Johnson, J.L., Prochaska, J.O., Rohr, M.S., and Peters, T.G. (2001), Assessing Family Members' Motivational Readiness and Decision Making for Consenting to Cadaveric Organ Donation, *Journal of Health Psychology*, Vol. 6(5), pp.523-536.

Rogers, C. (1951), *Client-Centered Therapy*, Boston: Houghton-Mifflin.

Rogers, R. W. (1975), A Protection Motivation Theory of Fear Appeals and Attitude Change, *Journal of Consumer Psychology*, Vol. 91, pp.93–114.

Rogers, R. W. (1983), Cognitive and Physiological Processes in Fear Appeals and Attitude Change: A Revised Theory of Protection Motivation, In. J. T. Cacioppo and R. E. Petty (eds.), *Social psychophysiology*, New York: Guilford Press.

Rogers, R. W., and Prentice-Dunn, S. (1997), Protection Motivation Theory, In D. Gochman (ed.), *Handbook of Health Behaviour Research: Vol. 1, Determinants of health behaviour: Personal and social*, New York: Plenum.

Ronis, D.L. (1992), Conditional Health Threats: Health Beliefs Decisions and Behaviours among Adults, *Health Psychology* Vol. 11(2), pp.127-134.

Rorty, R. (1990), Pragmatism as Anti-Representationalism, In J. P. Murphy, *Pragmatism: From Peirce to Davidson*, Boulder, CO: Westview.

Rosen, C. S. (2000), Is the Sequencing of Change Processes by Stage Consistent Across Health Problems? A Meta-Analysis, *Health Psychology* Vol., 19, pp.593–604.

Rosenholtz, S.J. and Rosenholtz, S.H. (1981), Classroom Organization and the Perception of Ability, *Sociology of Education*, Vol. 54, pp.132-140.

Rosenstock, I.M. (1974), The Health Belief Model and Preventive Health Behaviour, *Health Education Monographs*, Vol. 2(4), pp.354-386.

Rosenstock, I.M., Strecher, V.J., and Becker, M. H. (1988), The Health Belief Model and HIV Risk Behaviour Change, *Health Education Quarterly*, Vol. 15(2), pp.175-183.

Rothschild, M.L. (2009), Separating Products and Behaviours, *Social Marketing Quarterly*, Vol. 15(1), pp.107-110.

Saunders, M., Lewis, P., and Thornhill, A. (2009), *Research Methods for Business Students*, 5th ed., Pearson Education Limited, Edinburgh Gate, Harlow, Essex CM20 2JE: England.

Sayer, A., (1992), *Method in Social Science: A Realist Approach*, Second Edition, Routledge, London.

Seidman, I. (1998), *Interviewing as Qualitative Research: A Guide for Researchers in Education and the Social Sciences*, 2nd ed., New York: Teachers College, Columbia University.

Sethi, R., Smith, D.C., and Park, C.W. (2001), Cross-Functional Product Development Teams, Creativity, and the Innovativeness of New Consumer Products. *Journal of Marketing Research*, Vol. 38(1), pp.73-85.

Sheldon, T. A., Cullum, N., Dawson, D., Lankshear, A., Lowson, K., Watt, I., West, P., Wright, D., and, Wright, J. (2004), What's the evidence that NICE Guidance has been Implemented? Results from a National Evaluation Using Time Series Analysis, Audit of Patients' Notes, and Interviews, *British Medical Journal*, Vol. 329, pp. 999–1003.

Shillington, K. (1992), *Ghana and the Rawlings Factor*, London and Basingstoke: Macmillan, 22, SRING Centre; pp25 and 54.

Skinner, B.F. (1971), *Beyond Freedom and Dignity*, New York: Bantam/Vintage.

Smith, B. (2003), Beyond 'Health' as a Benefit, *Social Marketing Quarterly*, Vol. 9 (4), pp.22-28.

Smith, B. (2009), The Power of the Product P, or Why Toothpaste is so important to Behaviour Change, *Social Marketing Quarterly*, Vol15(1), pp.98-106.

Smith, J. K. (1983), Quantitative versus Qualitative Research: An Attempt to Clarify the Issue, *Educational Researcher*, Vol. 12(3), pp.6-13.

Solomon, D.H., Hashimoto, H., Daltroy, L., and Liang, M.H. (1998), Techniques to Improve Physicians' Use of Diagnostic Tests-A New Conceptual Framework, *Journal of the American Medical Association*, Vol. 280(23), pp.2020–2027.

Sowers, W. French, J., & Blair-Stevens, C. (2007), Lessons Learned from Social Marketing Models in the United Kingdom, *Social Marketing Quarterly*, Vol.13 (3), pp.58-62.

Sparks, P. and Shepherd, R. (1992), Self-identity and the Theory of Planned Behaviour: Assessing the Role of Identification with 'Green Consumerism', *Social Psychological Quarterly*, Vol. 55 (4), pp. 388-399.

Stake, R. E. (2000), Case Studies, In N. K. Denzin and Y. S. Lincoln (Eds.), *Handbook of Qualitative Research*, 2nd ed., Thousand Oaks, Calif.: Sage.

Stead, M., Hastings, G., and McDermott, L. (2007), The Meaning, Effectiveness and Futures of Social Marketing, *Obesity Reviews*, Vol. 8(Suppl. 1), pp.189–193.

Steers, W.N., Elliott, E., Nemiro, J., Ditman, D., and Oskamp, S. (1996), Health Beliefs as predictors of HIV-Preventive Behaviour and Ethnic Differences in Prediction, *Journal of Social Psychology*, Vol. 136(1), pp.99-110.

Step toe, A., Kerry, S., Rink, E., and Hilton, S. (2001), The Impact of Behavioural Counselling on Stages of Change in Fat Intake, Physical Activity, and Cigarette Smoking in Adults at Increased Risk of Coronary Heart disease, *American Journal of Public Health*, Vol. 91(2), pp.265-269.

Steven, K. T. (2002), *Sampling*, New York: John Wiley & Sons.

Stigler, J.W., Gonzales, P., Kawanaka, T., Knoll, S. & Serrano, A. (1999), *The TIMSS Videotape Classroom Study: Methods and Findings from an Exploratory Research Project on Eighth-Grade Mathematics Instruction in Germany, Japan, and the United States*. U.S.

Department of Education National Centre for Educational Statistics: NCES 99-074.
Washington, D.C.: Government Printing Office.

Strand, J., Rothschild, M.L., and Nevin, J.R. (2004), "Place" and Channels of Distribution, *Social Marketing Quarterly*, Vol10(3), pp.8-13.

Strauss, A. and Corbin, J. (1990), *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*, Newbury Park, Calif.: Sage.

Strauss, A. and Corbin, J. (2008), *Basics of Qualitative Research*, 3rd ed., Thousand Oak, CA: Sage.

Struthers, C. W. (2002), Using the internet for organizational research: A Study of Cynicism in the Workplace, *Cyber Psychology & Behaviour*, Vol. 5(4), pp.305-313.

Stubbs, R. (2005), Cluster Sampling: A False Economy? *International Journal of Marketing Research*, Vol. 47(5), pp.503-524.

Sussman, S. (2001), *Handbook of Program Development for Health Behaviour Research and Practice*, Thousand Oaks, Calif.: Sage.

Tanner, J. F., Hunt, J.B., and Eppright, D. R. (1991), The Protection Motivation Model: A Normative Model of Fear Appeals, *Journal of Marketing*, Vol. 55(3), pp.36-45.

Tashakkori, A. and Teddlie, C. (2003), *Handbook of Mixed Methods in the Social and Behavioural Science*. Thousand Oaks, CA: Sage.

Tashakkori, A. and Teddlie, C. (1998), *Mixed Methodology: Combining Qualitative and Quantitative Approaches*. Thousand Oaks, CA: sage.

Tavis, J. G. and Braun, R. E. (2010), Confusion Surrounding Social Marketing Strategies and Social Norm Theory: To Prevent High-Risk Drinking among College Students, *Social Marketing Quarterly*, Vol. 16(2), pp.94-103.

Taylor F, and Beswick A. (2005), Audit of Cardiac Rehabilitation in Light of the National Service Framework for Coronary Heart Disease, *British Journal of Cardiology*; Vol12, pp.50-52.

Taylor, C. (2003), What's all the Fuss About? *Quirk's Marketing Research Review*, Vol. 17(11), pp.40-45.

Thackeray, R., and Neiger, B. (2000), Establishing a Relationship between Behaviour Change Theory and Social Marketing: Implication for Health Education, *Journal of Health Education*, Vol. 3 (6), pp.331-35

The Great Alliance (1996), *West Africa*, September pp. 2-8.

The Regents of the University of California (1997), *The AIDS Epidemic in San Francisco: the Medical Response, 1981-1984*, Vol. 4, An Oral History Conducted in 1993-1994.

The World Bank (1994), *Adjustment in Africa: Reforms, Results, and the Road Ahead*, New York: Oxford University Press; p127.

The World Bank (2002), Education and HIV/AIDS: A window of Hope.

Thesenvitz, J. (2000), Health Communication Unit at the Centre for Health Promotion at the University of Toronto in Collaboration with the Council for a Tobacco-free Ontario and the Program Training and Consultation Centre 2000, Understanding and Using Fear Appeals for Tobacco Control. <http://www.ptcc-cfc.on.ca/pubs/fa-web.pdf>, Accessed October 24, 2011.

Thomas, J. S., Reinartz, W., and Kumar, V. (2004), Getting the Most Out of all Your Customers, *Harvard Business Review*, Vol. 82(7), pp.166-124.

Thompson, E. B, Heley, F. Oster-Aaland, L. Stastny, S. N. and Crawford, E. C. (2013), The Impact of a Student-Driven Social Marketing Campaign on College Student Alcohol-Related Beliefs and Behaviours, *Social Marketing Quarterly*, 19: 52

Trafimow, D. (1996), The importance of Attitudes in Predicting of College Students' Intention to Drink, *Journal of Applied Social Psychology*, Vol. 26(24), pp.2167-2188.

Triandis, H. C., Bontempo, R., Villareal, M. J., Asai, M., and Lucca, N. (1988), Individualism and Collectivism: Cross-Cultural Perspectives on Self-in Group Relationships, *Journal of Personality and Social Psychology*, Vol. 54(2), pp.323-338.

Triandis, H.C. (1980), Values, Attitudes, and Interpersonal Behaviour, In H.E. Howe and M. Page (eds.), *Nebraska Symposium on Motivation*, Lincoln: University of Nebraska Press.

Tweneboah-Koduah, E.Y. (2001), Effects of Marketing communications on HIV/AIDS Prevention in Ghana, Thesis Submitted in Partial Fulfilment of the Requirements for the Award of MBA (Mphil Option) Degree at University of Ghana.

Uhrig, J., Eroğlu, D., Bann, C., Wasserman, J. L., and Guenther-Grey, C. (2010), Systematic Formative Research to Develop HIV Prevention Messages for People Living with HIV. *Social Marketing Quarterly*, Vol.16 (3), pp.23-59.

UNAIDS (2010), AIDS Epidemic Update, Joint United Nations Programme on HIV/AIDS and World Health Organization, Information Production Unit, Geneva, Switzerland.

UNAIDS (2001), Global AIDS Update, Joint United Nations Programme on HIV/AIDS and World Health Organization, Information Production Unit, Geneva, Switzerland.

UNAIDS (2003), HIV/AIDS: It's your business, Joint United Nations Programme on HIV/AIDS and World Health Organization, Information Production Unit, Geneva, Switzerland.

UNAIDS (2004), AIDS Epidemic Update, Joint United Nations Programme on HIV/AIDS and World Health Organization, Information Production Unit, Geneva, Switzerland.

UNAIDS (2009), AIDS Epidemic Update, Joint United Nations Programme on HIV/AIDS and World Health Organization, Information Production Unit, Geneva, Switzerland.

UNAIDS (2006), Report on the Global AIDS Epidemic, The Impact of AIDS on People and Societies, Joint United Nations Programme on HIV/AIDS and World Health Organization, Information Production Unit, Geneva, Switzerland.

US Department of State (2010), A Service of the Bureau of Consular Affairs, USA.

Volk, J.E., and Koopman, C. (2001), Factors Associated with Condom use in Kenya: A Test of the Health Belief Model, *The AIDS Education and Prevention Journal*, Vol. 13, pp.495-508.

von Haeften, I., Fishbein, M., Kasprzyk, D., and Montano, D. (2001), Analysing Data to Obtain Information to Design Targeted Interventions, *Psychology, Health and Medicine*, Vol. 6(2), pp.151-164.

Vondruska, R. J. (1995), The Fine Art of Data Reduction, Quirk's Marketing Research Review, Online Archives.

Wallack, L. (1990), Media Advocacy: Promoting Health through Mass Communication, In K. Glanz, F. M. Lewis, and B.K. Rimmer (Eds.), *Health Behaviour and Health Education*, San Francisco: Jossey-Bass.

Webb, T.L. and Sheeran, P. (2006), Does Changing Behavioural Intentions Engender Behaviour Change? A Meta-Analysis of the Experimental Evidence, *Psychological Bulletin*, Vol.132, pp.249-268.

Wechsler, H., & Nelson, T. (2008), What we have Learned from the Harvard School of Public Health College Alcohol Study: Focusing Attention on College Student Alcohol Consumption and the Environmental Conditions that Promote it, *Journal of Studies on Alcohol & Drugs*, Vol.69, pp481-490.

Webb, J. R. (1992), *Understanding and Designing Marketing Research*, Academic Press. London.

Wechsler, H., Nelson, T. F., Lee J. E., Seibring, M., Lewis, C., and Keeling, R. P. (2003), Perception and Reality: A National Evaluation of Social Norms Marketing Interventions to Reduce Student's Heavy Alcohol Use, *Journal of Studies on Alcohol*, Vol. 64, pp.484-494.

Wechsler, H. and Wuethrich, B. (2002), *Dying to Drink: Confronting Binge Drinking on College Campuses*, Emmaus, PA: Rodale.

Weibe, G.D. (1951), Merchandising Commodities and Citizenship on Television, *Public Opinion Quarterly*, Vol. 15 (4), pp 679-691.

Weinreich, N. K. (1996), A More Perfect Union: Integrated Quantitative and Qualitative Methods in Social Marketing Research, *Social Marketing Quarterly*, Vol. 3, pp.53-58.

Weinreich, N. K. (1999), *Hands-on Social Marketing: A Step by Step Guide*, Thousand Oaks, CA: Sage.

- Weinstein, N. D. (1993), Testing Four Competing Theories of Health-Protective Behaviour, *Health Psychology* Vol. 12, pp.324–333.
- Weinstein, N.D. (2007), Misleading Tests of Health Behaviour Theories, *Annals of Behavioural Change Medicine*, Vol.33 (1), pp.1-10.
- Weinstein, N.D., Sandman, P. M., and Blalock, S. J. (2008), The Precaution Adoption Process Model, In K. Glanz, B.K. Rimer and K. Viswanath (eds), *Health Behaviour and Health Education: Theory, Research, and Practice* (4th Ed.), A Wiley Imprint, 989 Market Street, San Francisco, CA 94103-1741.
- West Africa (1993), High expectation, July 18-26.
- West Africa (2001a), What to do About Ghana's Debt? March 12-18.
- West Africa (2001b), Kuffour's Confident, July 9-15.
- Wheelock, A., Haney, W., and Bebell, D. (2000), What can Student Drawings Tell us about High-Stakes Testing in Massachusetts? *TCRecord.org*. Available: <http://www.tcrecord.org/Content.asp?ContentID=10634>. Accessed on 16 November, 2011
- Whitelaw, S., Baldwin, S., Bunton, R., Flynn, D. (2000), The Status of Evidence and Outcomes in Stages of Change Research, *Health Education Research*, Vol. 15(6), pp.707-18.
- Wight, D., Abraham, C., Scott, S. (1998), Towards a Psycho-Social Theoretical Framework for Sexual Health Promotion, *Health Education Research*, Vol. 13(3), pp.317-330.
- Wilson, G.T. and Schlam, T.R. (2004), The Transtheoretical Model and Motivational Interviewing in the Treatment of Eating and Weight Disorder, *Clinical Psychology Review* Vol.24, pp.361-78.
- Wilson, H.S., Hutchinson, S. A., and Holzemer, W. L. (2002), Reconciling Incompatibilities: A Grounded Theory of HIV Medication Adherence and Symptom Management, *Qualitative Health Research*, Vol. 12(12), pp.1309-1322.
- Witte, K. (1992), Putting the Fear Back into Fear Appeal: The Extended Parallel Process Model, *Communications monographs*, Vol.59 (4), pp.329-49.
- Witte, K. (1998). Fear as Motivator, Fear as Inhibitor: Using the Extended Parallel Process Model to Explain Fear Appeal Successes and Failures, In. P. A. Andersen and L. K. Guerrero (Eds.), *The Handbook of Communication and Emotion: Research, Theory, Applications, and Contexts*, San Diego, CA: Academic Press.
- Witte, K., and Allen. M. (2000), A Meta-Analysis of Fear Appeals: Implications for Effective Public Health Campaigns, *Health Education and Behaviour* Vol. 27: pp.591–615.
- Witte, K., McKeon, J., Cameron, K., and Berkowitz, J. (1995), The Risk Behaviour Diagnosis Scale (a Health Educator's Tool) Manual, Department of Communication, Michigan State University, <http://www.msu.edu/~wittek/rbd.htm>, Accessed October, 24, 2011.

Wood, M. (2008), Applying Commercial Marketing Theory to Social Marketing: A Tale of 4Ps (and a B), *Social Marketing Quarterly*, 14: 76

Worden, J.K. and Slater, M.D. (2004), Theory and Practice in the National Youth Anti-Drug Media Campaign, *Social Marketing Quarterly*, Vol. 2, pp.13-27.

Wulfert, E., Wan, C. K., and Backus, C. A. (1996), Gay Men's Safer Sex Behaviour: An Integration of Three Models, *Journal of Behavioural Medicine*, Vol. 19(4), pp.315-366.

www.avert.org/aids-history-86.htm, Retrieved on 11th December, 2010

www.Ghanahealthservice.org. Retrieved on 8th May, 2011

www.ghanaweb.com/ghanahomepage/blogs, retrieved on 19th March, 2011

www.modernghana.com, retrieved on 12th January, 2013

Wyner, G. A. (2001), Representation, Randomization, and Realism, *Marketing Research*, Vol. 13(3), pp.4-5.

Yang, Z., Wang, X., and Su, C. (2006), A Review of Research Methodologies in International Business, *International Business Review*, Vol. 15(6), pp.601-617.

Appendix 1

Questionnaire on Social Marketing Interventions on HIV/AIDS in Ghana

Please spare a few minutes of your time and answer the following questions on the role of theory in social marketing interventions on HIV/AIDS in Ghana. This is purely an academic exercise and any information given would be treated as confidential.

Please Note: Social Marketing interventions could be any marketing communications that seek to influence target group to adopt positive behaviours. Eg. To keep one sexual partner

Please circle your choice

Section1: Socio-demographic Profile

1. Sex of respondents
 1. Male
 2. Female

2. What age group do you fall into?
 1. 18-24
 2. 25-30
 3. 31-40
 4. 41-50
 5. 51 and above

3. What is your highest/current level of education?
 1. No formal education
 2. Primary education
 3. JSS education
 4. SSS/A 'Level education
 5. Tertiary education

4. What is your marital status?
 1. Single
 2. Married
 3. Divorced
 4. Widowed
 5. Separated
 6. Co-habitation

5. What is your religion?
 1. Christian
 2. Muslim
 3. Traditional
 4. No religion
 5. Other (Please specify)

6. To which tribe do you belong?
 1. Akan
 2. Ewe
 3. Ga/Dangme
 4. Dagbani
 5. Grussi
 6. Gruma
 7. Guan
 8. Other (Please specify)

7. District of respondents
 1. Lower Manya
 2. Fanteakwa

8. Location/Area of respondents
 1. Rural
 2. Urban

Section 2: Knowledge and Impact of Social Marketing Interventions on HIV/AIDS

9. Have you seen or heard any social marketing interventions (ads/promotions) on HIV/AIDS?
 1. Yes
 2. No
10. If the answer to the above question is yes, please indicate the extent of your agreement or disagreement to the statements provided. Please rate these statements on a five point Likert Scale, where, “5” is “strongly agree” and “1” is “strongly disagree”

I have seen/heard most adverts/promotions on AIDS through the following medium.

| Medium | Strongly agree | | | | | Strongly disagree | | | | |
|--|----------------|---|---|---|---|-------------------|--|--|--|--|
| Radio | 5 | 4 | 3 | 2 | 1 | | | | | |
| TV | 5 | 4 | 3 | 2 | 1 | | | | | |
| Newspapers/magazine | 5 | 4 | 3 | 2 | 1 | | | | | |
| Billboards | 5 | 4 | 3 | 2 | 1 | | | | | |
| Posters/pamphlets | 5 | 4 | 3 | 2 | 1 | | | | | |
| Conference/presentation | 5 | 4 | 3 | 2 | 1 | | | | | |
| Health workers | 5 | 4 | 3 | 2 | 1 | | | | | |
| Word of mouth (Friends/relatives, church/mosque, teachers etc. | 5 | 4 | 3 | 2 | 1 | | | | | |

11. How long have you been hearing or seeing social marketing interventions (promotion) on HIV/AIDS.
 1. Up to 1 year
 2. 2 years
 3. 3 years
 4. 4 years
 5. 5 years and above

12. Is there anything a person can do to avoid getting HIV/AIDS?
 1. Yes
 2. No
 3. Don't know

13. If the answer to question 12 above is yes, what can a person do to protect him/herself from getting HIV/AIDS?

Please note: you can choose as many as possible

1. Abstain from sex before marriage
2. Use condom
3. Have only one sexual partner
4. Avoid sex with prostitutes
5. Avoid sex with homosexuals
6. Avoid kissing
7. Avoid shaking hands with People Living with HIV/AIDS
8. Avoid blood transfusion from unauthorised facilities
9. Avoid mosquito bites
10. Avoid sharing blades and needles
11. Avoid sitting close with a person living with HIV/AIDS
12. Seek protection from traditional healers/pastors
13. Other (Please specify)

In the following questions (14-33), please indicate the extent of your agreement or disagreement to the statements provided. Please rate these statements on a five point Likert Scale, where, “1” is “strongly agree” and “5” is “strongly disagree”

14. The social marketing interventions (Ads/Promotions) on HIV/AIDS have influenced me in the following ways to protect myself against HIV/AIDS.

| Variable | Strongly agree | | | Strongly disagree | |
|--------------------------------|----------------|---|---|-------------------|---|
| Abstained from sex | 1 | 2 | 3 | 4 | 5 |
| Stopped all unprotected sex | 1 | 2 | 3 | 4 | 5 |
| Started using condom | 1 | 2 | 3 | 4 | 5 |
| Restricted sex to one partner | 1 | 2 | 3 | 4 | 5 |
| Stopped sharing blades/needles | 1 | 2 | 3 | 4 | 5 |
| Gone for HIV/AIDS test | 1 | 2 | 3 | 4 | 5 |

Section 3: Normative Beliefs, Attitude, Personal Agency and Intention

15. There is practically no chance I could get HIV/AIDS.
 1. Strongly agree
 2. Agree
 3. Neutral
 4. Disagree
 5. Strongly disagree

16. A woman who is seen to be carrying condoms would not have a good image in the society.
 1. Strongly agree
 2. Agree
 3. Neutral
 4. Disagree
 5. Strongly disagree

17. Buying condoms is still an embarrassing experience these days.
 1. Strongly agree
 2. Agree
 3. Neutral
 4. Disagree
 5. Strongly disagree

18. Getting infected with HIV/AIDS would be the worst thing that could ever happen to me.
 1. Strongly agree
 2. Agree
 3. Neutral
 4. Disagree
 5. Strongly disagree

19. Condom use works in preventing HIV/AIDS new infection.
 1. Strongly agree
 2. Agree
 3. Neutral
 4. Disagree
 5. Strongly disagree
20. Abstinence works in preventing HIV/AIDS new infection.
 1. Strongly agree
 2. Agree
 3. Neutral
 4. Disagree
 5. Strongly disagree

21. Keeping to one sexual partner works in preventing HIV/AIDS new infection.
1. Strongly agree
 2. Agree
 3. Neutral
 4. Disagree
 5. Strongly disagree
22. Most of the people who are important to me think that doing one or more of the following is proper way to protect myself against HIV/AIDS: Condom use, abstinence, keeping to one sexual partner or going for HIV test.
1. Strongly agree
 2. Agree
 3. Neutral
 4. Disagree
 5. Strongly disagree
23. I am able to use condoms without fumbling around to prevent HIV/AIDS infection.
1. Strongly agree
 2. Agree
 3. Neutral
 4. Disagree
 5. Strongly disagree
24. Because condom is very affordable, I am able to buy them any time I want.
1. Strongly agree
 2. Agree
 3. Neutral
 4. Disagree
 5. Strongly disagree
25. It is very difficult to locate a facility to test for HIV/AIDS.
1. Strongly agree
 2. Agree
 3. Neutral
 4. Disagree
 5. Strongly disagree
26. It is very difficult to locate a facility to buy condom.
1. Strongly agree
 2. Agree
 3. Neutral
 4. Disagree
 5. Strongly disagree
27. I have no intention of protecting myself against HIV/AIDS.
1. Strongly agree
 2. Agree
 3. Neutral

4. Disagree
 5. Strongly disagree
28. I do not intend to go for HIV/AIDS Test because people who know their HIV status die early from fear.
1. Strongly agree
 2. Agree
 3. Neutral
 4. Disagree
 5. Strongly disagree
29. I have no intention of buying/using condom to avoid stigmatisation.
1. Strongly agree
 2. Agree
 3. Neutral
 4. Disagree
 5. Strongly disagree
30. I intend to keep to one sexual partner or abstain from sex to protect myself against HIV/AIDS.
1. Strongly agree
 2. Agree
 3. Neutral
 4. Disagree
 5. Strongly disagree
31. I intend to test for HIV/AIDS to know my status.
1. Strongly agree
 2. Agree
 3. Neutral
 4. Disagree
 5. Strongly disagree
32. In the past six months, I have kept to one sexual partner or abstained from sex.
1. Strongly agree
 2. Agree
 3. Neutral
 4. Disagree
 5. Strongly disagree
33. In the past six months, I have tested for HIV/AIDS.
1. Strongly agree
 2. Agree
 3. Neutral
 4. Disagree
 5. Strongly disagree

34. Please provide any additional information here.....
.....Thank
you

Appendix 2

Interview Guide for Qualitative Research

1. Could you tell me the nature/Type of social marketing intervention programmes on HIV/AIDS in Ghana?
2. What is the extent/coverage of social marketing intervention programmes on HIV/AIDS in Ghana?
3. Who do you target for these interventions and why?
4. What are the campaign objectives?
5. Which behaviours do you seek to change with social marketing intervention programmes on HIV/AIDS?
6. What information or research helped you when planning social marketing intervention programmes on HIV/AIDS?
7. Looking back, is there anything else that could have helped in developing intervention programmes on HIV/AIDS?
8. In your view, are there factors that could prevent Ghanaians from protecting themselves against HIV/AIDS?
9. What do you consider to be the perceptions of Ghanaians on HIV protective behaviours?
10. Which medium do you use to communicate the recommended behaviours?
11. Do you have targeted interventions for areas with high HIV/AIDS prevalence?
12. Finally, describe to me about your challenges in implementing social marketing intervention programmes on HIV AIDS in Ghana.

Appendix 3

Figure 5.2: Abstinence from Sex

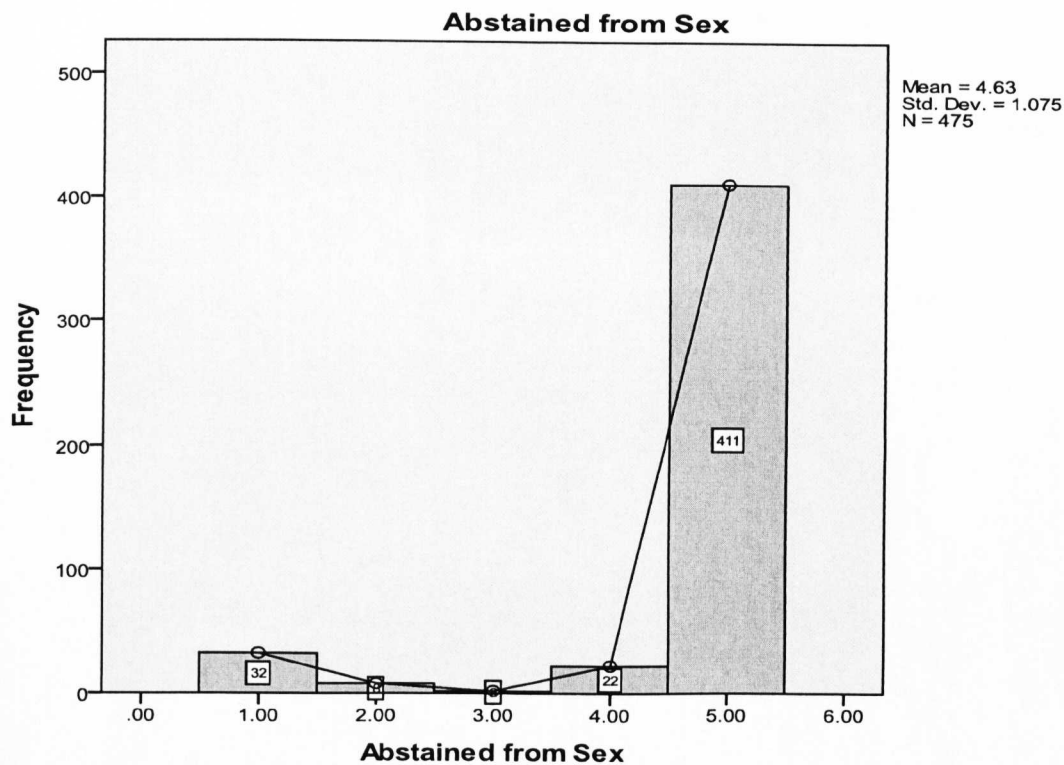


Figure 5.3: Stopped Unprotected Sex

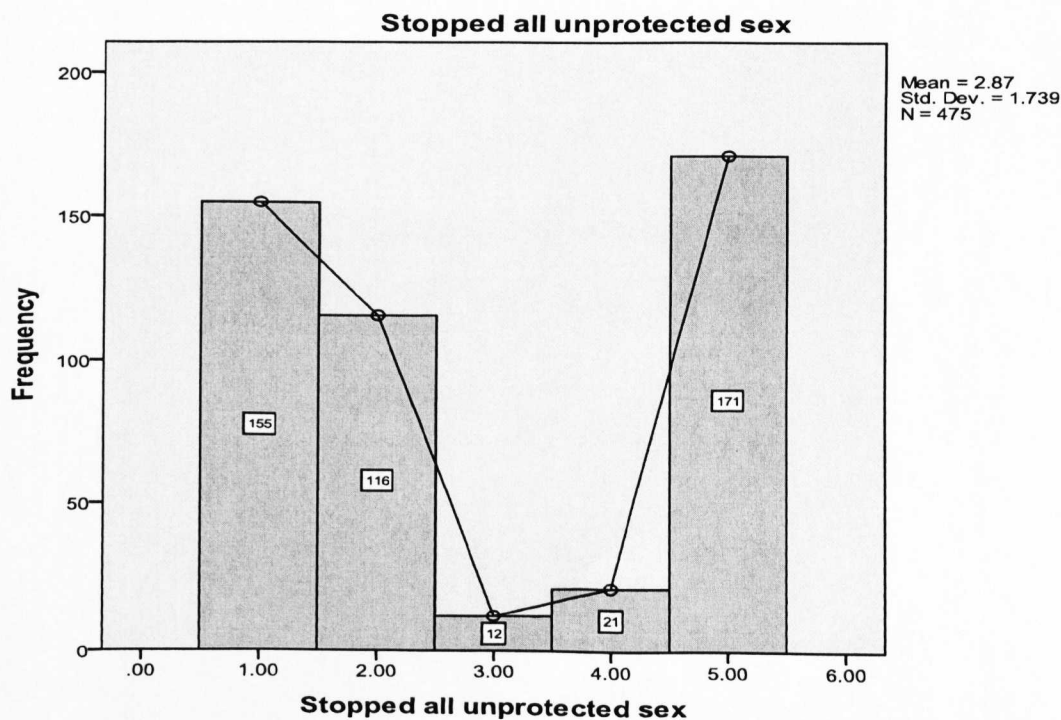


Figure 5.4: Condom Usage by Respondents

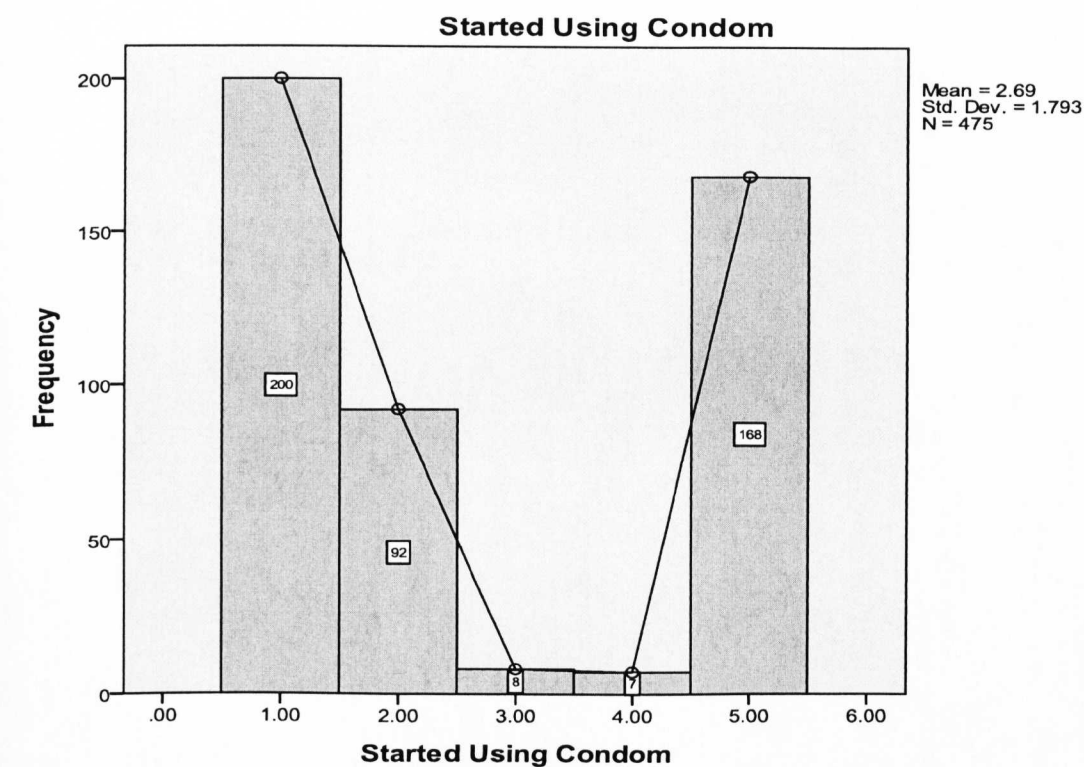


Figure 5.5: Restricted Sex to One Partner

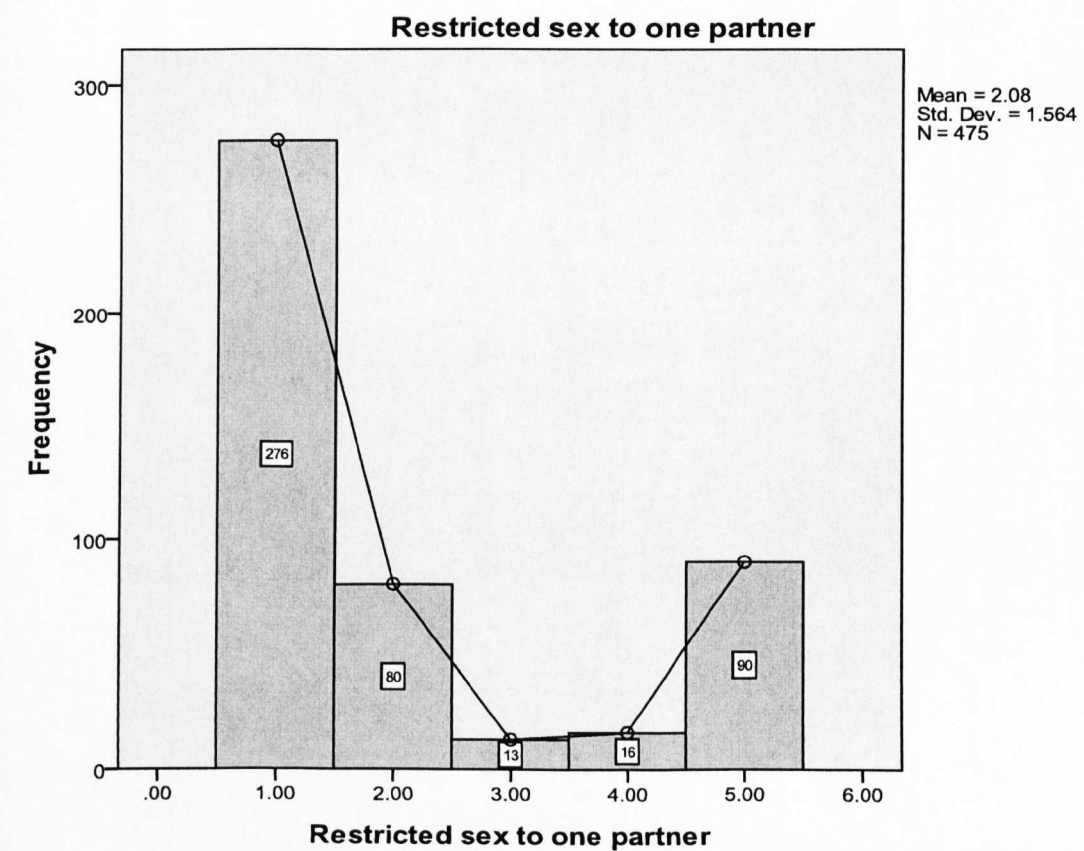


Figure 5.6: Stopped Sharing Blades/Needles

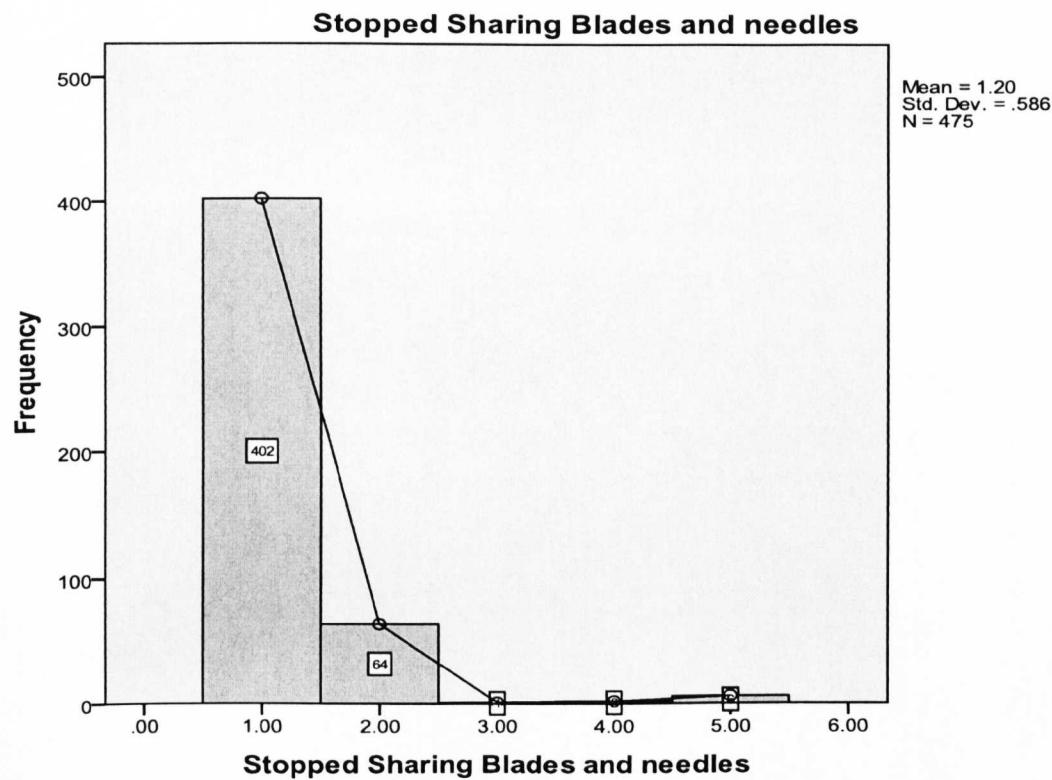


Figure 5.7: Gone for HIV/AIDS Test

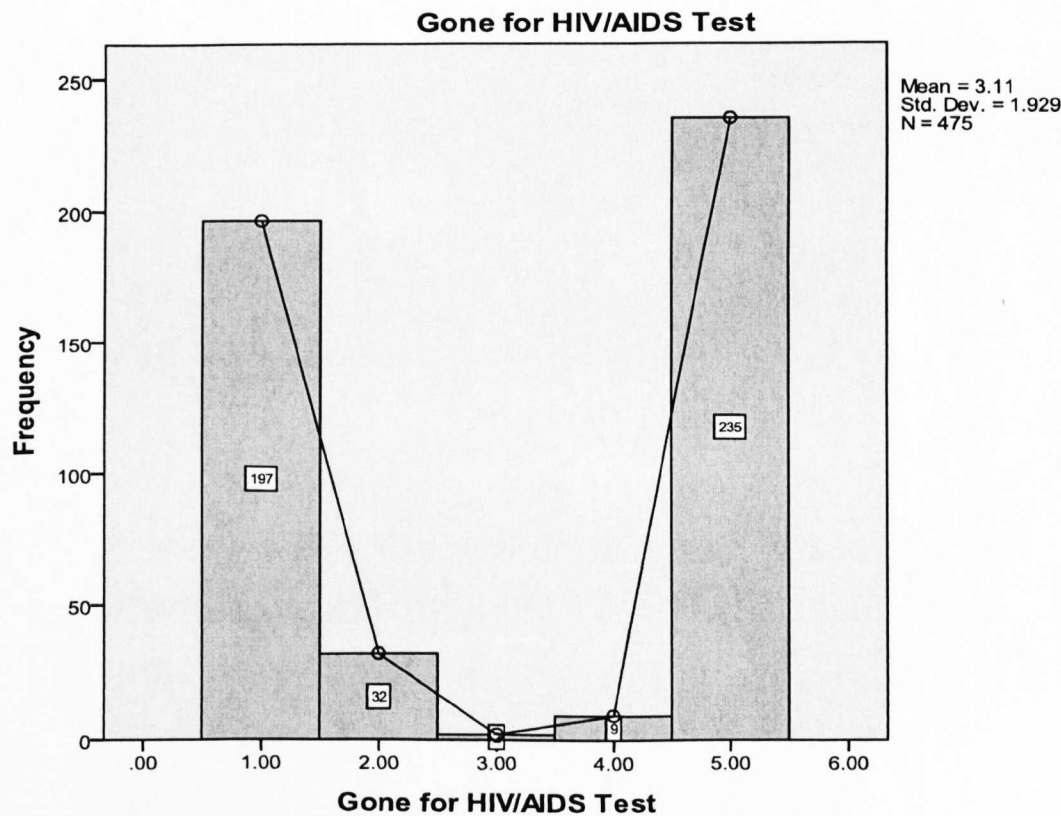


Table 5.30: Perceived Susceptibility on HIV/AIDS

| Variable | No. | % |
|-------------------|-----|------|
| Strongly Agree | 195 | 40.5 |
| Agree | 69 | 14.3 |
| Neutral | 12 | 2.5 |
| Disagree | 136 | 28.3 |
| Strongly Disagree | 69 | 14.3 |
| Total | 481 | 100 |

Table 5.31: Women seen Carrying Condoms and their Image in Society

| Variable | No. | % |
|-------------------|-----|------|
| Strongly Agree | 155 | 32.2 |
| Agree | 16 | 3.3 |
| Neutral | 4 | .8 |
| Disagree | 211 | 43.9 |
| Strongly Disagree | 95 | 19.8 |
| Total | 481 | 100 |

Table 5.32: Buying Condom as an Embarrassing Experience

| Variable | No. | % |
|-------------------|-----|------|
| Strongly Agree | 147 | 30.6 |
| Agree | 29 | 6 |
| Neutral | 12 | 2.5 |
| Disagree | 113 | 23.5 |
| Strongly Disagree | 180 | 37.4 |
| Total | 481 | 100 |

Table 5.33: Subjective Norms on Condom Use, Abstinence, Keeping to one sexual partner or going for HIV test.

| Variable | No. | % |
|-------------------|-----|------|
| Strongly Agree | 217 | 45.1 |
| Agree | 217 | 45.1 |
| Neutral | 36 | 7.5 |
| Disagree | 9 | 1.9 |
| Strongly Disagree | 2 | .4 |
| Total | 481 | 100 |

Figure 5.8: Perceived Severity of HIV/AIDS

Getting infected with HIV/AIDS would be the worst thing that could ever happen to me.

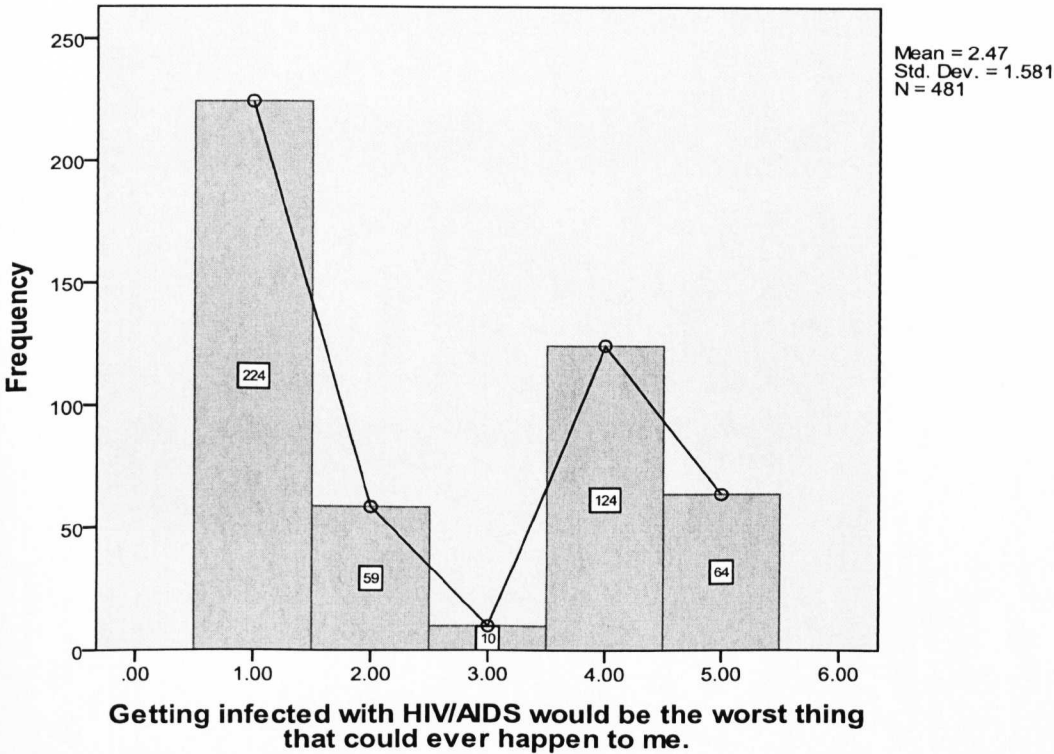


Figure 5.9: Self Efficacy of Respondents

I am able to use condom without fumbling around to prevent HIV/AIDS

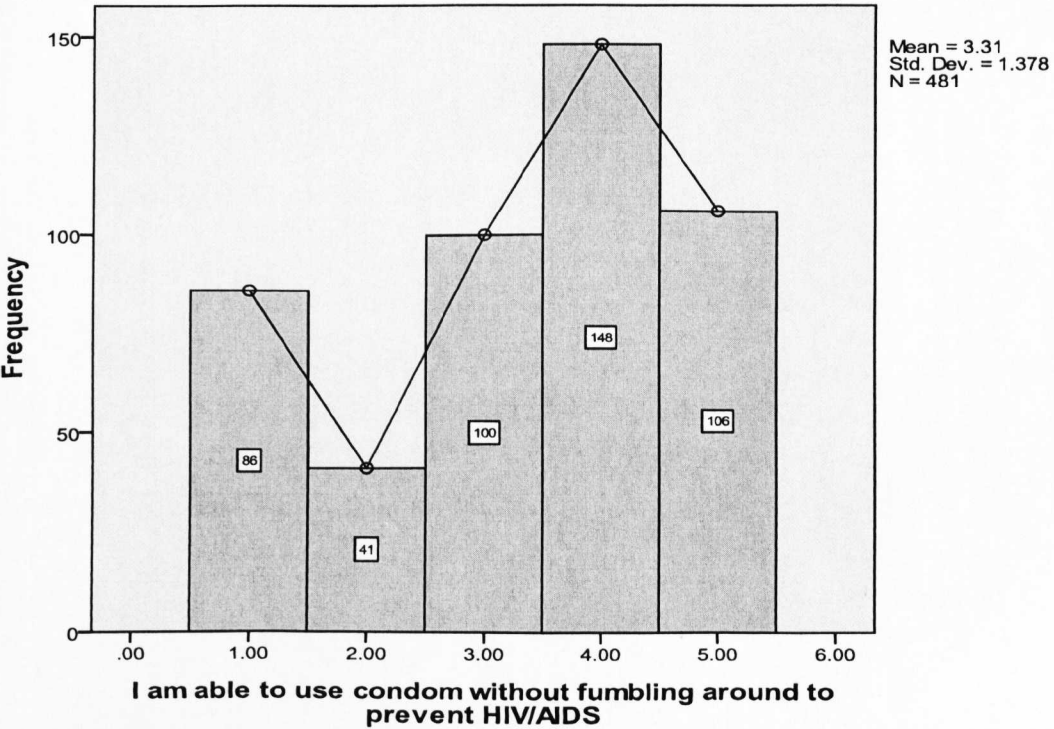


Figure 5.10a: Facilities to Test for HIV/AIDS

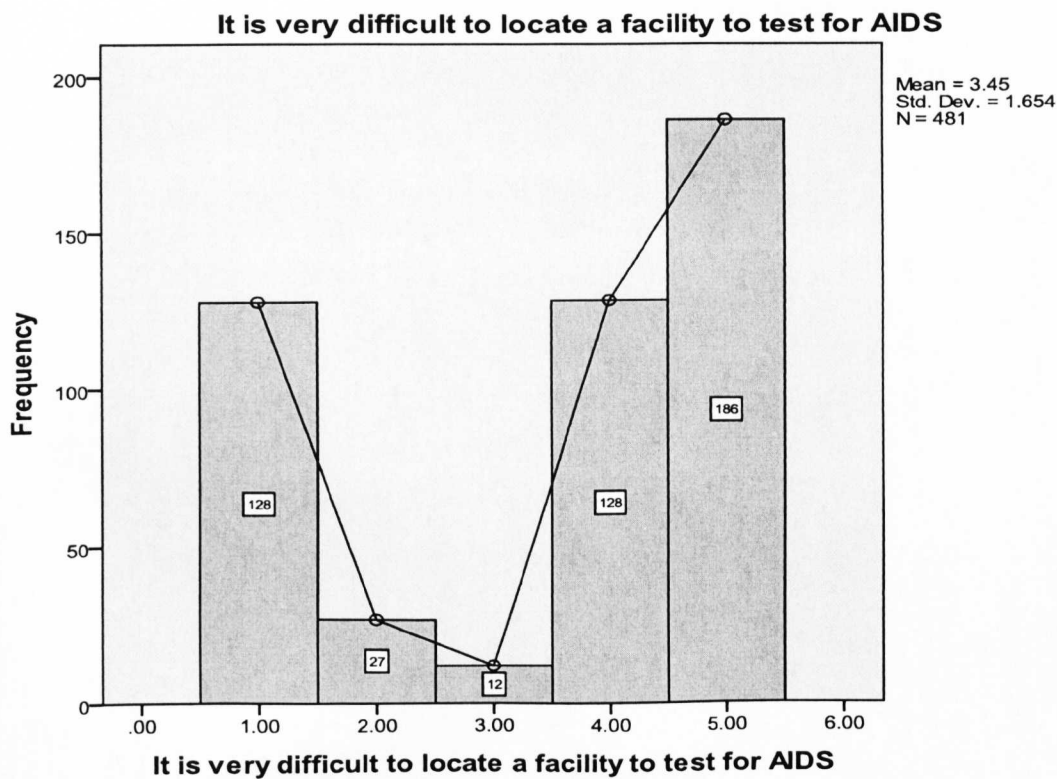


Figure 5.10b: Facilities to Buy Condom

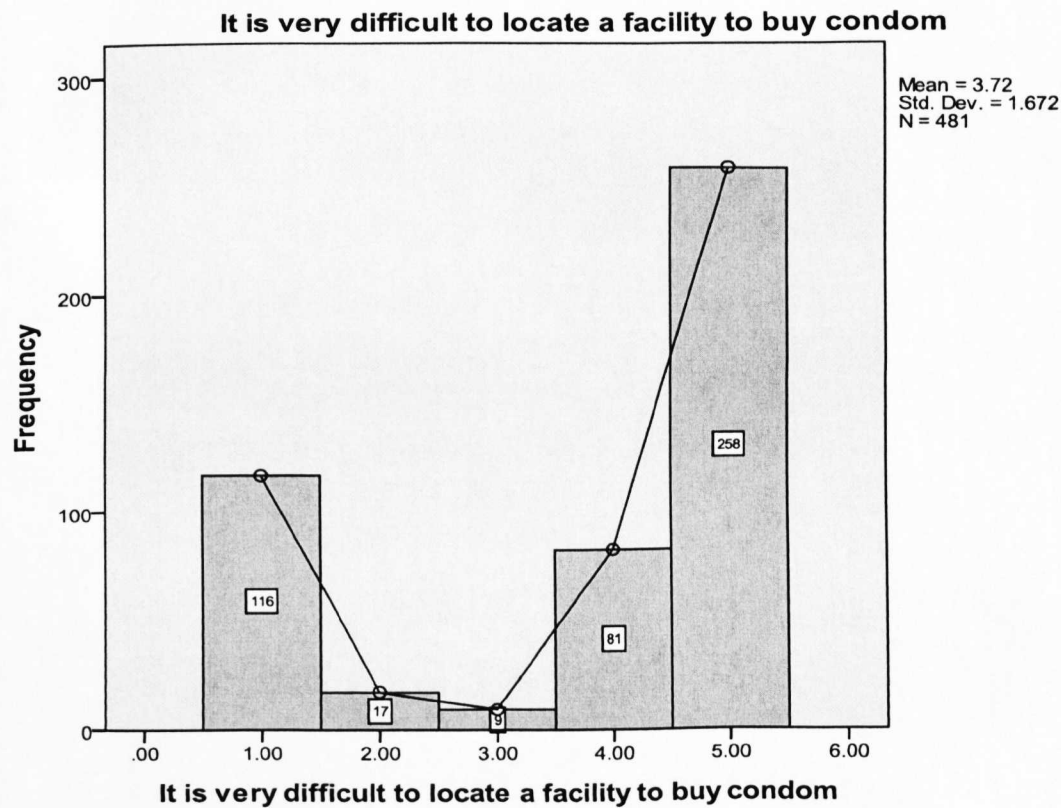


Figure 5.11a: Intention to Protect Oneself against HIV/AIDS

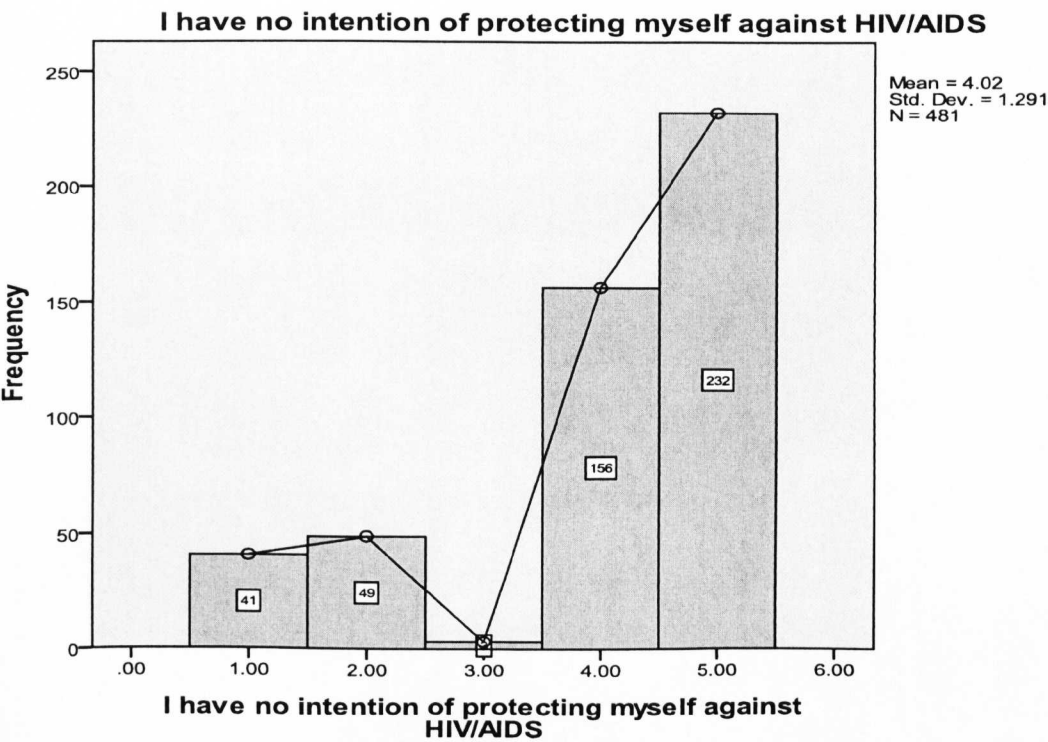


Figure 5.11b: Intention to Test for HIV/AIDS

I do not intend to go for HIV/AIDS Test because people who know their HIV status die early from fear

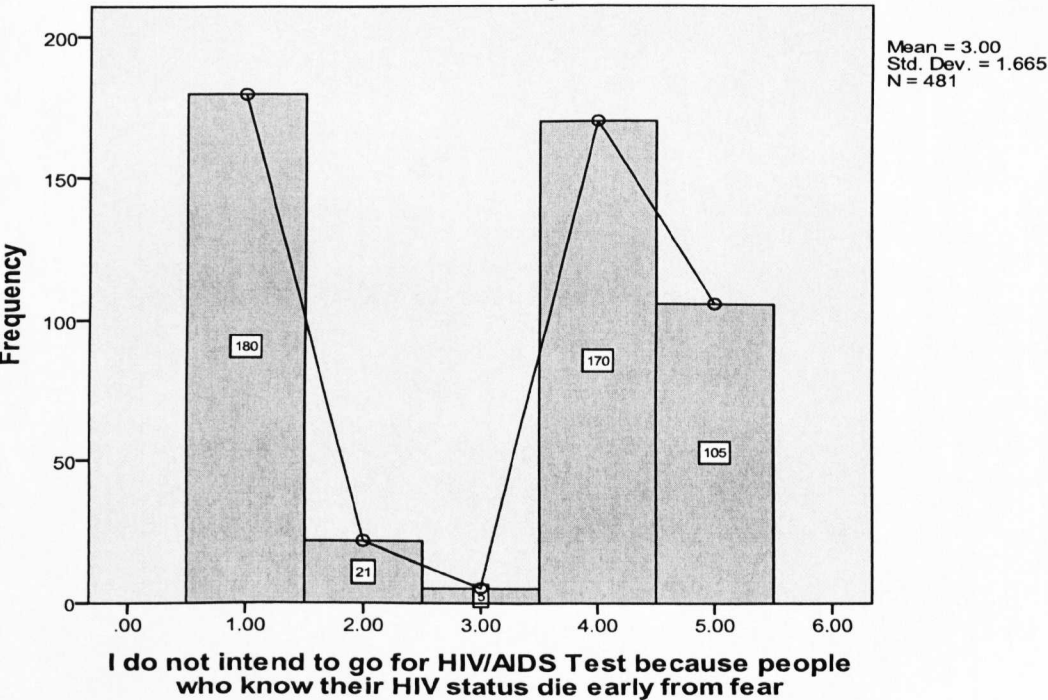


Figure 5.11c: Intention to Keep to One Sexual Partner

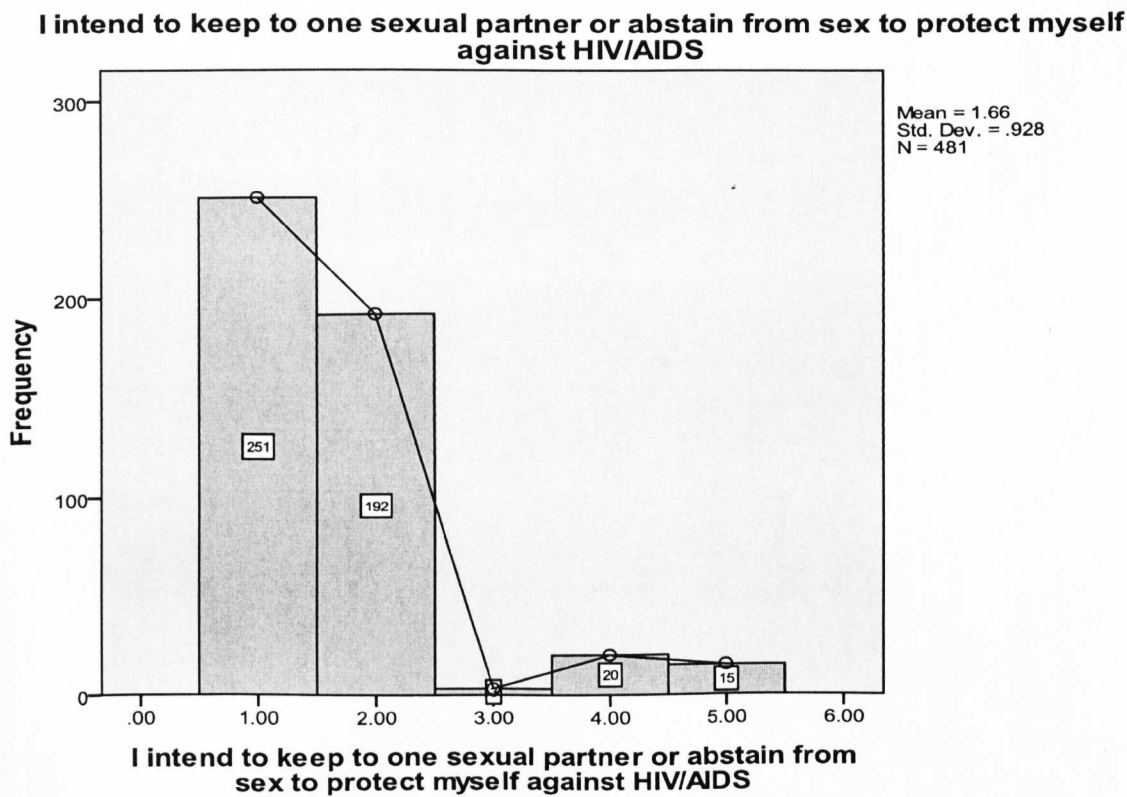


Figure 5.11d: Intention to Buy/Use Condom

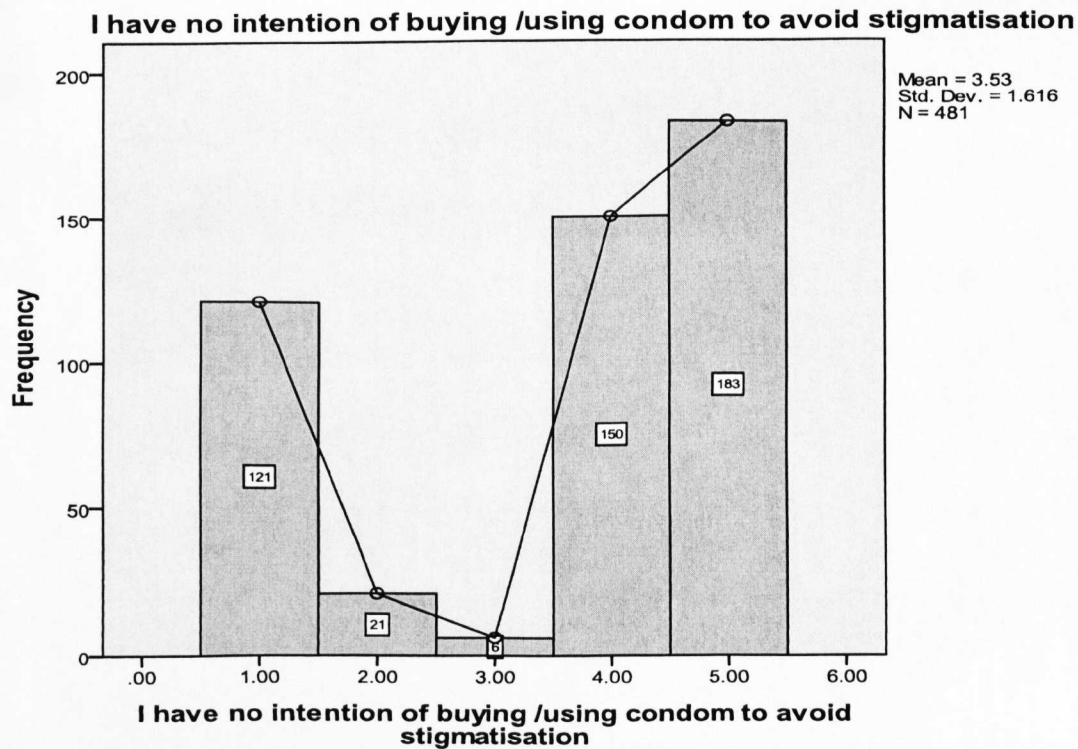


Table 5.34a: Action to Restrict Sex to one Partner

| Variable | No. | % |
|-------------------|-----|------|
| Strongly Agree | 287 | 59.7 |
| Agree | 105 | 21.8 |
| Neutral | 6 | 1.2 |
| Disagree | 36 | 7.5 |
| Strongly Disagree | 47 | 9.8 |
| Total | 481 | 100 |

Table 5.34b: Action to test for HIV/AIDS.

| Variable | No. | % |
|-------------------|-----|------|
| Strongly Agree | 74 | 15.4 |
| Agree | 16 | 3.3 |
| Disagree | 119 | 24.7 |
| Strongly Disagree | 272 | 56.6 |
| Total | 481 | 100 |

Table 5.35: Respondents' Awareness of HIV-Protective Behaviours

| Awareness of HIV Protective Behaviours | No. | % |
|--|-----|-------|
| Yes | 477 | 99.2 |
| Don't know | 4 | .8 |
| Total | 481 | 100.0 |

Table 5.36: Medium of Receiving Social Marketing Intervention Programmes on HIV/AIDS

| Medium | Agree % | Neutral % | Disagree % |
|-------------------------|---------|-----------|------------|
| Radio | 91.3 | 5.1 | 3.6 |
| Television | 79.2 | 0.8 | 20.0 |
| Health Workers | 63.2 | 3.4 | 33.4 |
| Word of mouth | 51.8 | 3.6 | 44.8 |
| Billboard | 27.1 | 11.9 | 61.0 |
| Conference/Presentation | 19.9 | 7.4 | 72.7 |
| Posters/Pamphlets | 16.6 | 6.8 | 76.1 |
| Newspaper/Magazine | 16.3 | 13.6 | 70.1 |

Appendix 4

Author's Research and Conference Activities

Published Articles

1. **Tweneboah-Koduah, E.Y., Mahama, B & Ntriwaa, O. P. (2012), Behavioral Change Communications on Malaria Prevention in Ghana. Health Marketing Quarterly, Taylor & Francis Group, LLC, Vol 29, pp.130–145.**
2. **Anabila, P, Narteh, B. & Tweneboah-Koduah, E .Y. (2012) Relationship Marketing Practices and Customer Loyalty: Evidence from the Banking Industry in Ghana. European Journal of Business and Management, Vol 4 (13), pp. 51-61.**
3. **Tweneboah-Koduah, E. Y. & Mahama, B., (2011) An exploratory study of the Impact of Green Brand Awareness on Consumer Purchasing Decisions in Ghana, Journal of Marketing development and Competitiveness, Vol. 5(7), pp. 11-18. North American Business Press.**
4. **Mamoud, M. A, Tweneboah-Koduah, E.Y. & Danku, C. E (2011), Key Motivations for bank loyalty among students in Ghana, Journal of Marketing development and Competitiveness, vol. 5(4), pp 96-107, North American Business Press.**
5. **Tweneboah-Koduah, E. Y. et al. (2010), Political Party Brand and Consumer Choice in Ghana. Journal of Management Policy and Practice, North American Business Press. Volume 11(5): pp. 79-88.**
6. **Tweneboah-Koduah, E. Y. & Hinson R. (2010), Political Marketing Strategies in Africa: Expert Opinion of Recent Political Elections in Ghana. Journal of African Business, Vol 11, pp. 201-218, Taylor & Francis Group, LLC.**

Submission to Journals and Conferences

1. **Tweneboah-Koduah, E.Y. and Owusu-Frimpong, N. (2013), The Role of Theory of Planned Behaviour in Social Marketing intervention Programmes on HIV/AIDS in Ghana. Submitted to 2013 Academy of Marketing Conference to be held at University of Glamorgan, Cardiff, UK.**
2. **Tweneboah-Koduah, E.Y. and Owusu-Frimpong, N. (2013), Social Marketing Communications on AIDS: Views of Implementers in Ghana. Submitted to 14th IAABD International Conference to be held in GIMPA, Accra, Ghana.**

3. **Tweneboah-Koduah, E.Y. and Owusu-Frimpong, N. (2012), Social Marketing on AIDS: Using Transtheoretical Model to Understand Condom Usage Intentions among Commercial Drivers in Ghana.** Submitted to International Journal of Non-profit and Voluntary Sector Marketing.
4. **Tweneboah-Koduah, E.Y. (2012), Social Marketing: Using Stages of Change Model to Assess HIV/AIDS Testing Intentions among University Students in Ghana.** Submitted to Journal of Nonprofit & Public Sector Marketing.

Conferences Attended

1. **Tweneboah-Koduah, E.Y. (2012), Social Marketing: Using Stages of Change Model to Assess HIV/AIDS Testing Intentions among University Students in Ghana.** Presented at the International Journal of Arts & Sciences' (IJAS) International Conference for Academic Disciplines which was held at Harvard University, 10 Garden Street, Cambridge, Massachusetts 02138, USA. 27th-31st May 2012.
2. **Tweneboah-Koduah, E.Y. and Owusu-Frimpong, N. (2012), Social Marketing on AIDS: Using Transtheoretical Model to Understand Condom Usage Intentions among Commercial Drivers in Ghana.** Presented at 2012 Academy of Marketing Conference held at University of Southampton's School of Management, UK from 2nd – 5th July 2012.
3. **Tweneboah-Koduah, E.Y. et al. (2011), Social Marketing: Behavioural Change communications on malaria prevention in Ghana.** Accepted for presentation and publication in a Peer Reviewed proceeding of 12th IAABD International Conference held in Edmonton, Canada.
4. **Tweneboah-Koduah, E. Y. & Mahama, B. (2010), An exploratory study of the Impact of Green Brand Awareness on Consumer Purchasing Decisions in Ghana,** In a Peer Reviewed proceedings of 11th IAABD International Conference in Lagos, Nigeria
5. **Tweneboah-Koduah, E. Y. et al. (2009), Political Party Brand and Consumer Choice in Ghana. ,** In a Peer Reviewed proceedings of 10th IAABD International Conference in Uganda.