

**Development of ethically appropriate HIV epidemic response strategy in a resource
poor setting: the case of Ghana**

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Dedication

This thesis is dedicated to my boys: Amos Ethan Laar and Hans Lael Laar. *“Even if you don't know now, you will know why I did it”.*

Abstract

Responding to HIV at global, regional, or local levels can give rise to a multitude of ethical tensions. To provide a comprehensive response to her HIV epidemic, Ghana has developed national plans, policies, and protocols. This thesis aimed to assess the ethics sensitivity of these guiding documents. The assessment included the quality of ethical reasoning and argumentation. Documents were assessed in their entirety using leading frameworks from public health ethics. The documents I reviewed have many strengths and also notable weaknesses. Generally, the documents reflect an underdeveloped understanding of potential and real ethical concerns. These documents provide inadequate responses to diminished rights of key populations. The prioritization schemes delineated in the documents, while sound from a public health perspective, lack adequate ethical justifications. The universal acknowledgement of chronic shortage of antiretroviral medications in the documents is not accompanied by practical recommendations concerning how to address such shortages. Guidelines addressing how to ethically allocate this scarce commodity do not exist.

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List of Abbreviations

| | | |
|--------|---|--|
| AIDS | - | Acquired Immunodeficiency Syndrome |
| ANC | - | Antenatal clinics |
| ARVs | - | Antiretrovirals |
| BCC | - | Behavior Change Communication |
| DICs | - | Drop In Centers |
| eMTCT | - | Elimination of mother-to-child transmission of HIV |
| EPP | - | Estimation and Projection Package |
| FSW | - | Female Sex Worker |
| GAC | - | Ghana AIDS Commision |
| GDHS | - | Ghana Demographic and Health Survey |
| GHS | - | Ghana Health Service |
| GoG | - | Government of Ghana |
| GSS | - | Ghana Statistical Service |
| GTZ | - | German Organisation for Technical Cooperation |
| HIV | - | Human Immunodeficiency Virus |
| HTC | - | HIV testing and counseling |
| IBR | - | Institutional Review Board |
| ICCPR | - | The International Covenant on Civil and Political Rights |
| ICESCR | - | International Covenant on Economic, Social and Cultural Rights |
| IEC | - | Information, Education, and Communication |
| IOM | - | International Organisation for Migration |
| IRIS | - | Immune reconstitution syndrome |
| LMIC | - | Lower Middle Income Country |
| MARP | - | Most At Risk Populations |
| MDGs | - | Millennium Development Goals |
| MMDAs | - | Metropolitan, Municipal and District Assemblies |
| MOH | - | Ministry of Health |
| MSM | - | Men who have sex with men |
| NACP | - | National AIDS/STI Control Programme |
| NGOs | - | Non-governmental Organizations |
| NMIMR | - | Noguchi Memorial Institute for Medical Research |
| NSF | - | National Strategic Framework |

| | | |
|--------|---|--|
| NSP | - | National Strategic Plan |
| OIs | - | Opportunistic infections |
| PEP | - | Post-exposure prophylaxis |
| PEPFAR | - | President's Emergency Plan for AIDS Relief |
| PLHIV | - | Persons living with HIV |
| PMTCT | - | Prevention of mother-to-child transmission of HIV |
| PrEP | - | Pre-exposure prophylaxis |
| STIs | - | Sexually transmitted infections |
| STDs | - | Sexually transmitted diseases |
| TasP | - | Treatment as prevention |
| UDHR | - | Universal Declaration of Human Rights |
| UNAIDS | - | Joint United Nations Programme on HIV/AIDS |
| UN | - | United Nations |
| UNESCO | - | United Nations Educational, Scientific and Cultural Organization |
| UNICEF | - | United Nations Children's Fund |
| WHO | - | World Health Organization |

CHAPTER ONE

1.0 Background and Country Context

This introductory chapter provides background information on the Republic of Ghana. The Chapter summarizes the history of the Human Immunodeficiency Virus (HIV) epidemic in Ghana from 1986 to the present, and describes Ghana's response to the epidemic. It also places in context the thesis' subject matter - ethics sensitivity of Ghana's HIV response guidelines. The chapter concludes by identifying the thesis' focus and identifying its contribution to the field of bioethics.

1.1 The Republic of Ghana

Formerly a British colony of the Gold Coast, Ghana attained independence on March 6, 1957 and became a republic within the British Commonwealth on July 1, 1960. Ghana is situated on the west coast of Africa and shares boundaries with three French-speaking countries: to the east, the Republic of Togo, to the west, Cote d'Ivoire, and to the north, Burkina Faso. The Gulf of Guinea is south of Ghana. The country is divided into ten administrative regions, which are further subdivided into 170 metropolitan, municipal and district assemblies (MMDAs).

The total population of Ghana was estimated in 2010 to be 24.6 million with a sex ratio of 94 males per 100 females (GSS, 2011). Forty percent of the total population are children aged 15 years or younger while 5% are 65 years or older. Although all-cause mortality rates have decreased over the years, life expectancy at birth is still currently estimated at only 58 years. Females live slightly longer than males. Over 40% of Ghana's population lives on less than one dollar per day according to the fifth round of the Ghana Living Standards Survey (GSS, 2008). One third of Ghana's rural population lacks access to safe drinking water, and only 11% have adequate sanitation (*ibid*). The 2007 Ghana Maternal Health Survey reported a national average of 451 maternal deaths per 100,000 live births (GSS, GHS, & Macro-International, 2009b). Recent UN estimates peg the ratio at 350 deaths per 100,000 live births (UNICEF, 2012). Between 2004 and 2008, there were significant reductions in infant and child mortality rates, largely due to multi-faceted public health efforts. Neonatal mortality dropped from 41 to 30; infant mortality from 77 to 50; and child mortality from 155 to 80. These numbers are expressed as deaths per 1000 live births (GSS, GHS, & Macro-International, 2009a).

1.2 HIV Epidemic in Ghana

The first 42 cases of Acquired Immunodeficiency Syndrome (AIDS) were recorded in Ghana in 1986 (Library of Congress & CIA, 1994). By the end of 2011, an estimated 225,478 persons were living with HIV. Of this population, 13.5% were children younger than 15 years. Over 12,000 new HIV infections occurred in 2011 compared to 14,165 in 2010. The estimated annual AIDS deaths for 2010 and 2011 were 17,230 and 15,263 respectively (GAC, 2012).

The most recent population-based data on HIV prevalence in Ghana is ten years old. Results of this survey showed that 2% of Ghanaian adults aged 15-49 years were HIV positive (GSS, NMIMR, & ORC-Macro., 2004). The sex-specific HIV prevalence was 2.7% for women and 1.5% for men. Since 2004, annual HIV prevalence estimates have been based upon sentinel surveillance data obtained from documentation of pregnant women attending antenatal clinics (ANC). The Estimation and Projection Package (EPP) modeling technique was introduced in 2009. This approach models national HIV prevalence based on ANC HIV prevalence and other sources of information¹.

According to the World Health Organization (WHO) epidemic classification system, the HIV epidemic in Ghana continues to be generalized.² Annual HIV sentinel surveillance reports suggest an overall downward trend in HIV prevalence: 3.6% in 2003, 2.7% in 2005, 3.2% in 2006, and 2.2% in 2008. In 2010, the prevalence was 2.0% and in 2011, it was 2.1%. The EPP modeling methodology, however, calculated the prevalence to be 1.9% in 2009, 1.5% in 2010, and 1.5% 2011 (GAC, 2012).

While the overall HIV prevalence rate seems to be stabilizing in Ghana, there are considerable variations by geographic region, gender, and urban-rural residence (NACP, GHS, & WHO, 2010), other studies indicate that only 30% of HIV cases are reported, in part because of

¹ Released in 2005 by the WHO, UNAIDS, and their partners the EPP software (EPP 2005) estimates and projects adult HIV prevalence in countries with heterosexual epidemics of HIV infection. The input to EPP is surveillance data from various sites and years showing HIV prevalence among pregnant women. The assumption is that, in these countries, HIV prevalence in pregnant women attending ANCs is taken to represent prevalence in all adults, male and female, aged 15–49.

² The WHO definition for a generalized epidemic is when the prevalence is 1% or greater in the general population

stigma, but also because of reduced health-seeking behavior and poor access to health services (GSS et al., 2009a).

The major determinants of the spread of HIV in Ghana include marginal access to HIV prevention services among key populations³, high number multiple concurrent sex partners with low condom use, and enormous stigma and discrimination against persons infected with the virus (GAC, 2012). Gender is also an important determinant of the spread of HIV; women are disproportionately infected. Male clients of sex workers and those with multiple sex partners act as a bridging population spreading HIV to their female partners (*ibid*). A study conducted by the International Organisation for Migration, reveals that there are between 40,000 to 50,000 sex workers in Ghana with 90% being the mobile kind (roamers). Roamers are highly susceptible to HIV infection (IOM-Ghana, 2012). No credible estimates of the population of MSM in Ghana exist currently. While myriad problems – physical, social, and emotional do assail MSM and sex workers, stark poverty is popularly agreed as a major motivator of their lifestyles.

1.2.1 National Response to HIV

Approached as a disease rather than a developmental issue, the HIV epidemic initially was managed solely by the Ministry of Health (MOH). Ghana's initial HIV response efforts led to the establishment of a National Advisory Commission (NAC) on AIDS in 1985 and the National AIDS/STI Control Programme (NACP) in 1987. Thirteen years later, the complex nature of the epidemic compelled Ghana to adopt a multi-sectoral approach and a decentralized coordination system for its HIV response. This approach led to the establishment of the Ghana AIDS Commission (GAC) in 2000, the development of the National Strategic Framework (NSF) I to guide the National Response from 2003 – 2005; and a NSF II, which guided Ghana's response from 2006 – 2010.

Ghana's HIV response has been centered on three thematic areas: prevention, treatment and care, and mitigation of socio-economic effects. There is currently an increased public awareness about HIV as evidenced by findings of the most recent Ghana Demographic and Health Survey (GDHS) (GSS et al., 2009a). The overall disease prevalence is also trending

³ Previously referred to as most at risk populations (MARP). The UANIDS Terminology Guidelines (2011) advises against the use of MARP, as it is viewed as stigmatizing. The 2011 guidelines advocates for the use of "key populations at higher risk" (both key to the epidemic's dynamics and key to the response), instead. MARP and key populations are used interchangeably in this thesis without prejudice.

downward. Still, significant challenges and gaps remain. While awareness and general public knowledge about HIV is high⁴, in-depth knowledge about the transmission of HIV is low; and so is positive behavior change. Too many⁵ Ghanaians, according to the 2008 GDHS, do not know their HIV status (*ibid*).

In their annual reports, the Ghana AIDS Commission has for years noted a number of constraints including policy gaps in the private sector response. There is no policy guidance concerning government agencies should engage the private sector in Public-Private Partnership arrangements for the attainment of health/HIV outcomes. Currently, the National Health Insurance Scheme, established by the National Health Insurance Act of 2003, pays for curative services for enrollees. Antiretroviral medications (ARVs) are not covered. ARVs costs are, however, subsidized. Persons living with HIV (PLHIV) and receiving ART are charged a five Ghana cedis (2.5 US dollars) monthly user fee (NACP, GHS, & MOH, 2010).

Human rights contraventions, related stigma and discrimination of persons infected and affected with HIV are persistent (GTZ & GAC, 2011). Widespread stigma and discrimination toward PLHIV and key populations reduces the uptake of HIV services including HIV testing and counseling (HTC), adherence to ART and access to supportive services (Amon, Baral, Beyrer, & Kass, 2012; Baral et al., 2009; Bosu, K, Gurumurthy, & Atuahene, 2009; Poteat et al., 2011).

In an attempt to address these challenges, Ghana has developed the national strategic plan (NSP) for the period 2011 – 2015. A national HIV and AIDS policy developed in 2004 to provide overall guidance to the implementation of the national response was revised in 2012. The national guidelines for the prevention of mother-to-child transmission (PMTCT) of HIV, dated July 2008 (NACP, GHS, & MOH, 2008), and the guidelines for antiretroviral therapy dated August 2010 (NACP, GHS, & MOH, 2010) are among the key documents outlining Ghana's HIV response actions.

⁴ Respondents in the 2008 Ghana DHS were asked whether they had heard of AIDS. Those who reported having heard of AIDS were asked a series of questions about whether AIDS can be avoided and how. As high as 98% of women and 99% of men had heard about AIDS, indicating that awareness of AIDS in Ghana is nearly universal (GSS et al., 2009).

⁵ Percentage of men (aged 15-49) who ever tested and received their HIV test results is 12.7% (GSS et al., 2009). Among all women age 15-49 who gave birth in the two years preceding the DHS, the percentage who were counselled, offered, and accepted an HIV test, and who received results was 23.9% (GSS et al., 2009).

The NSP 2011 – 2015 provides a detailed national action plan, strategies, and performance indicators. Its overall focus is on reducing by half the HIV infections by 2015 with a virtual elimination of mother to child transmission of HIV, as well as sustaining and scaling up ART. The plan seeks to leverage treatment as a prevention strategy (GAC, 2010). The National HIV/STI Policy (2012) provides guidance to other HIV-related policies, interventions, program design and implementation in Ghana (GoG, 2012). The essence of the policy is to reduce the impact of HIV- and STI-related morbidity and mortality in the country. These documents (the NSP, and the national HIV and STI policy), the national guidelines for the prevention of mother-to-child transmission of HIV, as well as the national guidelines for antiretroviral therapy are reviewed in Chapter four.

1.3 Thesis Focus and Aims

Anemic national responses to the HIV epidemic, the lack of harmonized standards in research and clinical care, and in some instances draconian public health approaches for tackling the epidemic have various health and ethical implications. Such actions or inactions can rob PLHIV of their rights including the right to healthcare. In countries where PLHIV or populations at higher risk for acquiring or transmitting the virus have their rights diminished by state or public health (in)actions, actions need to be taken to elevate them. Ghana currently criminalizes and penalizes behaviors of populations at higher risk such as men who have sex with men, sex workers, and injecting drug users (GoG, 1960)⁶. In fact, since the beginning of the HIV epidemic in the 1980s, local speculations and anecdotes have hinted at Ghana's preoccupation with desirable public health outcomes at the expense of fundamental ethical and human rights (ActionAid Ghana, 2007; Awusabo-Asare, 1995). No evidence in support of, or against these speculations exists. Addressing existing rights issues and preemptively identifying potential infringements should be a calling for every bioethicist.

The overarching aim of this thesis project was therefore to assess the sensitivity of Ghana's HIV guiding documents to ethical issues and public health considerations. Four guiding documents⁷ outlining Ghana's national response to her HIV epidemic were perused. These

⁶ Criminal Code 1960 (Act 29) section 276: criminalizes prostitution and soliciting for sex. Criminal Code 1960-97 Chapter 6, Sexual Offences Article 105: criminalizes homosexuality and lesbianism. Interpretations of these laws cover prostitution or and men who have sex with men

⁷ The National HIV Strategic Plan for the period 2011-2015; The National HIV/STI Policy (2012); The National Guidelines for Prevention of Mother-to-Child Transmission of HIV (2008); and The Guidelines for Antiretroviral Therapy (ART) dated August 2010.

documents address all the key domains of the HIV response in Ghana: prevention, treatment and support, and impact mitigation. These documents were assessed in their entirety for ethical tensions, ethics-insensitivity or deficiencies. In this regard, many relevant themes were identified⁸. My thesis focuses on some of them: Rights of key populations to public health services; geographic prioritization of public health services/interventions; allocation of, and access to prevention, treatment, care support services/commodities. Also discussed are ethical tensions associated with using scarce antiretroviral medications for preventative purposes.

1.4 Contribution to Bioethics

Over two decades ago, Lawrence Gostin writing on the topic “The Future of Public Health”, noted that “public health policies are seldom crafted with attention to their impact on human rights” (L. O. Gostin, 1986). After careful scrutiny of the corpus of knowledge available at the time, Gostin and Mann offered a possible justification for this behavior in 1994: few public health officials at the time were familiar with human rights doctrines, and at the same time, the human rights community had rarely written or litigated in the area of public health (L. Gostin & Mann, 1994). In 2001, London siding with Gostin and Mann, described the modest experience of health professionals with human rights matters in his article titled “The Independence of Practical Ethics” (London, 2001). James Drane, however, noted that a respectable level of attention had been paid to ethical issues in public health, and that the academic efforts of bioethicists to address these issues were identifiable then (Drane, 2001). As if in reaction to Dane’s submission, Carl Coleman and colleagues argued that even though ethical questions are an implicit part of public health practice, incorporation of a formal process of ethical deliberation into public health policy-making has not been adequate (Coleman, Bouesseau, Reis, & Capron, 2007).

Hyder et al. bring another dimension to the argument. They note that the current gradual integration of ethics into public health policy is seen in the developed world but not in many developing health systems, where public health decisions are still made in the absence of explicit ethical analysis (Hyder et al., 2008). Hyder et al. highlight the need to analyze public health decision making from an ethical perspective. These calls remain relevant today. Recent

⁸ Ethics of service provision in general; delineation of adequate safeguards to ensure that eligible pregnant women receive ethically sound PMTCT services; ethical roll-out of the opt-out HIV testing strategy; sexual partners notification; delineation of actionable steps in NSP to sustainably address the perennial ART shortages; clear guidelines on the ethical allocation of HIV treatment commodities during shortages; provisions to address human rights matters of key higher risk populations; geographic prioritization of public health services/interventions, ethical tensions of Treatment as Prevention (TasP) policies, amongst others.

literature acknowledges previous efforts⁹, but bemoans the difficulty health professionals have in defining the link between ethics and the health decision-making processes, and what role (if any) bioethicists should play in structuring health policies (J Arras, 2010; Behrmann, 2012; Gibson, Martin, & Singer, 2005). With this background, I illustrate below how this work will contribute to the field of bioethics and public health ethics.

The first contribution will be an enrichment of sparse existing literature and discourses on ethics sensitivity of Ghana's key public health guidelines. This work identifies and discusses ethical loopholes in Ghana's HIV strategic plan, HIV policy, and other guidelines. It describes how existing ethical frameworks can guide the decision-making processes of government, health professionals, and the public. Both public health decision-makers and users of such decisions need ethical guidance on the making, interpretation, and practical application of said decisions.

Second, the specific themes outlined in section 1.3 have practical implications for how public health policies are designed, implemented and evaluated in Ghana. For example, when public health authorities make decisions about allocating limited AIDS drugs, this work will serve as a reminder and a guide as they determine which principles and values should guide ethical reasoning and public health policies.

By identifying potential rights infringements in public health decision making and services rendition, ethical tensions and deficiencies, discussing their implications, this work contributes to better public health service provision, in the context of HIV. It is hoped that the specific recommendations of this thesis will be useful to the GAC and her partners as they seek to develop¹⁰ ethically justified response strategies to the HIV epidemic in Ghana.

⁹ Behrmann (2012) notes that health professionals and administrators are becoming increasingly knowledgeable of the utility and necessity to incorporate ethical considerations in policy development...

¹⁰ It is not within the remit of my thesis to develop the complete ethically relevant response strategy for Ghana. My thesis will, however, present recommendations on how to address the ethical deficiencies of the national response.

CHAPTER TWO

2.0 Relevant literature

This Chapter presents relevant literature on the broad subject of ethics and public health. It covers frameworks and approaches for analyzing ethics-sensitivity of public health efforts; ethical allocation of scarce resources; and human rights matters of key populations identified in HIV response.

2.1 Frameworks for analyzing ethics-sensitivity of public health efforts

In addressing the multitude of health, ethics, and human rights issues globally, ethicists, public health and human rights scholars have developed various frameworks. Frameworks for analyzing public health programs (Kass, 2001; Nuffield Council on Bioethics, 2007), public health practice (Baum, Gollust, Goold, & Jacobson, 2007; Childress et al., 2002; Nieburg P Bonnie R., 2003; Tannahill, 2008) health policy reforms (Daniels et al., 2000), and human rights impact assessment of public health policies (L. Gostin & Mann, 1994) exist. Marieke ten Have et al. examined thoroughly most of these frameworks (Ten Have, de Beaufort, Mackenbach, & van der Heide, 2010). The frameworks, which relate directly to the thesis subject matter, are reviewed in the following section.

2.1.1 Frameworks for analyzing public health programs and practice

Employing a principlist analysis, Kass offers a procedure for weighing the burdens and benefits of a public health program (Kass, 2001). The principles considered by Kass inline with Beauchamp and Childress (Beauchamp & Childress, 1994) are respect for persons/autonomy, beneficence and justice. The framework raises awareness of the ethical issues of proposed public health programs and suggests means of addressing them. Kass distinguishes three categories of ethical burdens - risks to privacy and confidentiality, risks to liberty and self-determination, and risks to justice. To a large extent, this framework considers concerns with improving the public's health as moral issues related to beneficence, not just strategic issues. Relevant questions to ask in assessing the ethics of a proposed public health program are:

1. *What are the public health goals of the proposed program?*
2. *How effective is the program in achieving its stated goals?*
3. *What are the known or potential burdens of the program?*
4. *Can burdens be minimized? Or are there alternative approaches?*
5. *Can the program be implemented fairly?*
6. *How can the benefits and burdens of a program be fairly balanced?*

Childress et al. provide a conceptual map of public health ethics in the United States (Childress et al., 2002). They propose strategies for resolving conflicts between the promotion of public health and other moral values. The framework consists of nine¹¹ general moral principles in public health ethics. They warn that the principles are not hierarchically ordered, and that when they conflict, each may have to yield in some circumstances. Childress et al. note that some public health goals should override moral considerations, such as justice, liberty and privacy, only when the effectiveness, proportionality, necessity, and least infringement conditions are met. Thus, is the program effective in protecting public health? Do its benefits to public health outweigh the infringement of moral considerations? Is there no alternative program that is less morally troubling?

The Nuffield Council on Bioethics proposed a model that distinguishes acceptable goals and restrictions of public health programs (Nuffield Council on Bioethics, 2007). Its aim is to help analyze ethical issues of public health policy. It offers two analytic tools, the 'stewardship model' and the 'intervention ladder'. The stewardship model describes acceptable goals and restrictions for public health policy¹². The 'intervention ladder' lists levels of intrusiveness¹³ of public health policies; from "do nothing" through to "eliminate choice." The higher up the ladder a program is, the stronger its justification needs to be.

¹¹ **General moral considerations proposed by Childress et al.**

#1-producing benefits #2-avoiding, preventing and removing harms #3-producing the maximal balance of benefits over harms and other costs #4-distributing benefits and burdens fairly (distributive justice) and ensuring public participation, including the participation of affected parties (procedural justice)
 #5-respecting autonomous choices and actions, including liberty of action #6 -protecting privacy and confidentiality #7-keeping promises and commitments #8-disclosing information as well as speaking honestly and truthfully (often grouped under transparency) and #9-building and maintaining trust

¹² **The Nuffield Council Stewardship model: Acceptable public health goals**

#1-reducing the risks of ill health that result from other #2-people's actions, such as drink-driving and smoking in public places; #3 -reducing causes of ill-health relating to environmental conditions, for instance provision of clean drinking water and setting housing standards; #4-protecting and promoting the health of children and other vulnerable people; #5-helping people to overcome addictions that are harmful to health or helping them to avoid unhealthy behaviors; #6-ensuring that it is easy for people to lead a healthy life, for example by providing convenient and safe opportunities for exercise; #7-ensuring that people have appropriate access to medical services; and #7-reducing unfair health inequalities. #8 public health programs should not attempt to coerce adults to lead healthy lives; #9-minimise the use of measures that are implemented without consulting people (either individually or using democratic procedures); and #10-minimize measures that are very intrusive or conflict with important aspects of personal life, such as privacy

¹³ **Levels of intrusiveness of public health programs**

• Eliminate choice • Restrict choice • Guide choice through disincentives • Guide choice through incentives • Guide choices through changing the default policy • Enable choice • Provide information • Do nothing or simply monitor the current situation

Baum et al. offer an analytic framework designed to assist policymakers and practitioners in managing the public health ethical tensions they confront (Baum et al., 2007). The framework recognizes that public health practice fundamentally requires practitioners to balance various ethical considerations rather than follow any one organizing moral principle. Together, six considerations proposed by Baum et al. create a structured guide that decision-makers may find helpful, both to identify potential ethical issues in public health practice and to possibly reduce the creation of ethical tensions. These considerations are:

1. Determine Population-Level Utility of the Proposed Action
2. Demonstrate Evidence of Need and Effectiveness of Actions
3. Establish Fairness of Goals and Proposed Implementation Strategies
4. Demonstrate Accountability
5. Assess Expected Efficiencies and Costs Associated with the Proposed Action
6. Consider Political Feasibility and Community Acceptance

Tannahill's framework describes the position of evidence and ethics in decision-making about public health interventions. The framework aids in deciding whether or not to implement an intervention. The framework consists of a 'decision-making triangle' that has on its top *ten ethical principles*¹⁴, and *evidence* and *theory* on its bottom (Tannahill, 2008). The triangle illustrates Tannahill's claim that the emphasis in decision-making should be on the explicit application of an identified set of ethical principles. Within this framework the effectiveness of an intervention is essential, but only because it serves the ethical principles (Have et al., 2010).

2.1.2 Frameworks for analyzing health policy reforms, and human rights impact assessment of public health programs

In 1994, Gostin and Mann proposed a human rights impact assessment instrument for public health policies (L. Gostin & Mann, 1994). This tool provides a systematic approach to exploring the human rights dimensions of public health policies, practices, resource allocation decisions, and programs. Seven basic steps outlined in this assessment tool involve a series of questions designed to balance the public health benefits of a policy against its human rights burdens. They are:

¹⁴ Tannahill's ten possible ethical principles for health promotion, public health and health improvement are: Do good; Do not harm; Equity; Respect; Empowerment; Sustainability; Social responsibility; Participation; Openness; Accountability

Step I: Clarification of the public health purpose of proposed programs by government

Step II: Evaluation of the likely policy effectiveness by public officials.

Step III: Determination as to whether the public health policy is well targeted and avoids both under-inclusion and over-inclusion. Gostin and Mann note that while under-inclusive policy may or may not be permissible, over-inclusiveness with regard to a coercive power is almost always unacceptable. They warn that policies may be both under-and over-inclusive. Such policies affect individuals who do not pose a danger to the public (over-inclusiveness), yet fail to include individuals who would pose a danger (under-inclusiveness). They cite criminal penalties against commercial sex workers but not their male agents or clients as both under-and over-inclusive. Such policies are suspiciously under-inclusive because they selectively punish vulnerable population when at least two other groups participate in the risky behavior. Such policies are also over- inclusive because there are some sex workers who are not infected with an STD; and inform clients of the potential risks; and/or practice safer sex.

Step IV: Entails examining each policy for possible human rights burdens. They refer to the International Bill Rights and mention non-derogable rights that may not be infringed even in times of public emergency. These rights include freedom from discrimination; the right to life; freedom from torture and from cruel, inhuman or degrading treatment or punishment; and freedom of thought, conscience, and religion (Rothman, 1994).

Step V: Determine whether the policy is the least restrictive alternative that can achieve the public health objective. The principle of the least restrictive alternative seeks the policy that is least intrusive while achieving the public health objective as well or better than the policy under consideration.

Step VI: States that, "if a coercive public health measure is truly the most effective and, least restrictive alternative, then it should be based on the "significant risk" standard. The "significant risk" standard permits coercive measures only to avert likely harm to the health or safety of others. For infectious diseases like HIV or tuberculosis, the significant risk standard is based upon four factors: (i) nature of the risk; (ii) probability of the risk; (iii) severity of harm; and (iv) duration of the risk.

Step VII, the final step states: "if a coercive measure is truly necessary to avert a significant risk, guarantee fair procedures to persons affected".

Table 1. Attributes of some selected ethical frameworks in public health

| Frame work's author s | Gostin and Mann | Kass | Childress et al. | Public Health Leadership Society | Nuffield | Tannahill |
|---|--|---|--|---|--|--|
| Title | Towards the development of a human rights impact assessment for the formulation and evaluation of public health policies | An ethics framework for public health | Public health ethics: mapping the terrain | Principles of the ethical practice of public health | Public health: ethical issues | Beyond evidenceto ethics: a decision-making framework for health promotion, public health and heath improvement |
| Year issued | 1994 | 2001 | 2002 | 2002 | 2007 | 2008 |
| Type of policy or intervention that is discussed | Explores human rights dimensions of public health policies, practices, resource allocation decisions, and programs | Interventions, policy proposals, research initiatives, programs | Interventions | Public health practice, including ideals and policies of institutions | Measures, policy | Policies, programs, services, activities |
| Aim | To provide a human rights impact assessment tool for public health policies; tools provides a systematic approach to exploring the human rights dimensions of public health policies, practices, resource allocation decisions, and programs; tool seeks to help practitioners balance the public health benefits of a policy against its human rights burdens | To indicate ethical implications of programs, to indicate defining values of public health | To provide a rough conceptual map of public health ethics, to help thinking through and resolving conflicts between promoting public health and other moral requirements | To guide institutions by clarifying distinctive elements of public health and the related ethical principles, to provide a standard to which public health institutions can be hold accountable | To help considering ethical issues of measures and policy for health improvement | To indicate the function of evidence and ethics in founding policies, to indicate what actions should be implemented |
| Set of principles, values, or recommendations | 7 basic steps outlined in assessment tool; involve a series of questions designed to balance the public health benefits of a policy against its human rights burdens | Values are mentioned in the text, for instance: public health seeks to improve the wellbeing of communities | 9 General moral considerations, for instance: producing benefits | 12 Principles of the ethical practice of public health, for instance: public health should address principally the fundamental causes of | 10 principles (Stewardship model), for instance: acceptable public health goals include reducing the risks of ill health that result from other people's | 10 possible ethical principles, for instance: do good |

| | | | | | | |
|--|---|---|---|--|--|--|
| | | | | disease and requirements for health, aiming to prevent adverse health outcomes | actions, such as drink driving and smoking in public places | |
| Main ethical values/claims | Over-inclusiveness Under-inclusiveness least restrictive alternative, well-being Privacy and confidentiality Liberty Distributive justice Procedural justice "Significant risk" standard, which includes the (i) nature of the risk; (ii) probability of the risk; (iii) severity of harm; and (iv) duration of the risk. | Well-being Privacy and confidentiality Liberty and self-determination Distributive justice Procedural justice | Well-being Utility Distributive justice and fairness Procedural justice and participation Liberty and autonomy Privacy and confidentiality Trustworthiness Transparency and openness | Well-being Individual rights Participation Empowerment Equality Evidence based Transparency Effectiveness Consent Swiftness Cultural value pluralism Respect for environment Confidentiality and privacy Professionalism Trustworthiness | Well-being Care of the vulnerable Empowerment Autonomy Fairness and equality Liberty and self-determination Openness Privacy | Well-being Equity Respect Empowerment Sustainability Social responsibility Participation Openness Accountability |
| Criteria for dealing with ethical conflicts | Human rights burdens must be in commensuration with public health actions; -Coercive programs should be kept to a minimum, should never be implemented when a less restrictive program would achieve comparable goals, and should be implemented only in the face of a clear public health need and | The greater the burden, the greater must be the expected public health benefit. -The more uneven the benefits and burdens are divided between groups, the greater must be the expected benefit. -Coercive programs should be kept to a minimum, should never be implemented when a less | Within particular circumstances promoting the goals of public health (producing benefits, preventing harms and producing utility) may override other moral considerations (such as individual liberty or justice), provided that the following justificatory conditions are met: -Effectiveness -Proportionality -Necessity -Least infringement | Not specified | The overall aim should be to achieve the desired health outcomes while minimizing restrictions on people's freedom. -The more intrusive a program is, the more benefits it must create. -Ideally the principles should not be infringed, and when infringement is deemed necessary sound | Documenting judgments can be of value both in consultation and in continuing constructive dialogue after decisions have been made. In case of disagreement, those who disagree may understand what decisions were based on and can argue for a different decision based on the |

| | | | | | | |
|--|--|--|--|--|---|-------------------------|
| | <p>good data demonstrating effectiveness.</p> <p>“if a coercive public health measure is truly the most effective and, least restrictive alternative, then it should be based on the "significant risk" standard.</p> <p>“if a coercive measure is truly necessary to avert a significant risk, guarantee fair procedures to persons affected”.</p> <p>Disagreements about balancing burdens and benefits should be solved through a system of fair procedures that require a democratic process.</p> <p>Non-derogable rights may never be infringed even in times of public emergency.</p> <p>While under-inclusive policy may or may not be permissible, over-inclusiveness with regard to a coercive power is almost always unacceptable.</p> | <p>restrictive program would achieve comparable goals, and should be implemented only in the face of a clear public health need and good data demonstrating effectiveness.</p> <p>Disagreements about balancing burdens and benefits should be solved through a system of fair procedures that require a democratic process, including public hearings to consider minority views.</p> | <p>-Public justification</p> <p>Dealing with conflicts in a fair and trustworthy manner requires a process of public accountability.</p> <p>This involves soliciting input from the relevant publics during the formulation of public health policies as well as justifying to the relevant publics what is being undertaken after decisions have been made.</p> | | <p>justification is required.</p> <p>-The classical harm principle, care of the vulnerable, autonomy and consent are of special importance, either because infringing them can have significant consequences, or because they are of particular relevance to public health interventions.</p> | <p>same principles.</p> |
|--|--|--|--|--|---|-------------------------|

Adopted from *Have et al. (2010). BMC Public Health 2010, 10:638: <http://www.biomedcentral.com/1471-2458/10/638>*

2.1.3 The common morality and principles of biomedical ethics

The Principles of Biomedical Ethics by Beauchamp and Childress is a classic in the study of bioethics. Published in 1979, the first edition described the four principles of respect for autonomy, non-maleficence, beneficence, and justice. These principles were argued to be mediating between high-level moral theory and low-level common morality. They define common morality as “...the set of norms that all morally serious persons share.” The objectives of morality, they argue, are those of promoting human flourishing by counteracting conditions that cause the quality of people's lives to worsen. It is linked explicitly to today's human rights discourse, although critiques have argued that the common morality approach to moral deliberation make assumptions, which fail to recognize the plural moral traditions that are found in multicultural, multiethnic, and multifaith societies (Turner, 2003).

2.2 Ethical allocation of scarce/essential resources

Throughout the phases of the HIV pandemic, scarcity of treatment and prevention commodities has been experienced. In Ghana for example, there has been perennial ARV shortages (GAC, 2012). This problem takes two forms: a national inability to address the unmet national AIDS drugs needs, and an unpredictable crisis where some hospitals that provide ART experience local shortages. According to the Ghana AIDS Commission, the percentage of eligible¹⁵ adults and children who received antiretroviral therapy in 2009 were 30.5% and 14.8% respectively. Even though recent treatment scale-up efforts have resulted in about 64% of identified and eligible pregnant women receiving ART for PMTCT in 2011 (*ibid*), the erratic local shortages remain a challenge.

The quintessential challenge facing both public health professionals and bioethicists is how to ethically ration these scarce and life-saving resources. In addressing this subject, a common question has been “Who shall live when not all can live?” (JD Arras, 2005). To lay persons, scarce resources could be shared using the principle of blind justice, which dictates a random allocation, or first-come first-served basis. Experts like Gostin and Powers, however, see this approach as unjustifiable when life-saving commodities can be targeted more cost-effectively (L. O. Gostin & Powers, 2006). Their arguments are reviewed. Before proceeding to an examination of their approach, it may be apropos to review the concept of triage here.

¹⁵ Refer to Diagrams 1, 2 and 3 for eligibility characterization.

Robert Veatch, writing on the subject of “Disaster Preparedness ...”, provides a useful background on the concept of triage (Veatch, 2005). Veatch traces the history of triage from its original use (which was much more innocuous) to its current interpretation or misinterpretation. Veatch writes about the two moral principles of triage – utility and justice. Utilitarians suggest that, in times of scarcity, we should aim to get the greatest possible benefit out of limited resources. To those who espouse this conception of justice, those individuals with the greatest need should be top priority. Rationing criteria used specifically in ART programs are discussed below.

2.2.1 Rationing criteria used in antiretroviral therapy programs

Before 2005, the WHO recognizing the scarcity of life-saving ARVs, raised concerns about the ethical dilemmas concerning who should be granted access to publicly-subsidized ART (Bennett & Chanfreau, 2005), but at the time offered little concrete guidance to countries. Rosen et al. analyze the various choices, and consequences of rationing antiretroviral therapy in Africa (Rosen, Sanne, Collier, & Simon, 2005). However, the variables considered in their metric for consequences were predominantly not ethics-related. Their variables ranged from effectiveness to economic efficiency. Each of Rosen et al.’s variables and their definitions are presented in the table below.

Table 2. Variables deemed important in rationing antiretroviral therapy in Africa

| Variable | Definition |
|-----------------------------------|--|
| Effectiveness: | Does the rationing system produce a high rate of successfully treated patients? |
| Cost savings: | Is the cost per patient treated low, compared to other approaches? |
| Feasibility: | Are the human and infrastructural resources needed for implementation available? |
| Social equity: | Do all medically eligible patients, including those from poor or disadvantaged subpopulations, have equal access to treatment? |
| Rationing potential: | Will the chosen system sufficiently reduce the number of patients? |
| Impact on HIV transmission: | To what extent does treatment reduce HIV incidence? |
| Sustainability: | Can the system be sustained over time? |
| Economic efficiency: | To what extent does the system mitigate the long-term impacts of the HIV epidemic on economic development? |
| Effect on the health care system: | How does the system for allocating ART affect the country's health care system as a whole? |

Bennett & Chanfreau (2005) in their paper titled “approaches to rationing antiretroviral treatment: ethical and equity implications”, note that both explicit and implicit rationing mechanisms are employed at HIV treatment centers. Explicit rationing according to Krizova and Simek occurs when defined and widely understood criteria are used to determine access (Krizova & Simek, 2002). By contrast, implicit rationing lacks any overarching plan or clearly defined criteria, but rather depends on subtle decisions, many of which are made by health-care providers (Clarkeburn, 1998).

Rosen et al. (2005) describe possible subpopulations for explicit rationing. These groups include mothers and their infants, skilled workers, poor people, and key populations. The “PMTCT-Plus” initiative, which has been implemented in many African countries, is the main example of rationing targeted at mothers and their infants (Mitka, 2002). Botswana, Zambia, and Uganda have plans that target skilled workers - soldiers, university faculty and students, and civil servants, respectively (Rosen et al., 2005). Social justice considerations, however, require that the poorest members of society, who are least likely to be able to afford private medical care, have preferential access to publicly funded treatment programs. Means-testing¹⁶ is a common way to ration social benefits (Macklin, 2004). The arguments for inclusion of key populations is that, since treatment reduces the probability of transmission giving preferential access to high-risk populations, such as commercial sex workers, truck drivers, and intravenous drug users will yield a substantial public health dividend.

Implicit rationing systems would deploy such tactics as access to HIV testing, first come, first served, and queuing. Cited in Rosen et al. (2005) are other potential criteria for rationing ART that have either been proposed or are in use ((Macklin, 2004; Wilson & Blower, 2005). A recent publication by Macklin and Cowan provides a rich review of ethical principles usually consulted in prioritization or allocations (Macklin & Cowan, 2012). These principles include the utilitarian and equity dimensions reviewed above. The others are urgent need, prioritarian, rule of rescue, and the equal worth principles. These approaches are discussed in detail in the fourth chapter.

Briefly, Brock states the urgent need principle as follows: “People’s medical needs give rise to moral claims to the health care resources necessary to meet those needs, ...equally urgent

¹⁶ Means-test is defined as a determination of whether an individual or family is eligible for help from the government, based upon whether the individual or family possesses the means to do without that help

needs give rise to equal moral claims, and...more urgent needs give rise to stronger moral claims” (Brock, 2003). The prioritarian principle requires that resources be provided to the least advantaged members or groups in society (Brock, 2002). The principle of rule of rescue, is summarized by Brock and Wikler as follows: “The fact that we can save identified people whose lives are imminently threatened by AIDS creates an obligation to do so...” The equal worth requires that we offer the same level of care to every person in need, given that every life is of equal worth (Brock & Wikler, 2009).

Presented in the following three diagrams are inclusion and exclusion criteria, and the selection process for initiating antiretroviral therapy in Ghana (NACP, GHS, & MOH, 2010).

Table 3. Inclusion criteria for initiation* of PLHIV into ART

| Criteria |
|--|
| 1. Patients with CD4 count less than 350 cells /ml and / or #2. |
| 2. Symptomatic with HIV infection in WHO clinical stage 3 and 4. |
| 3. For pregnant women, where the CD4 count is greater than 350, they shall be put on ARV prophylaxis starting from 14 weeks of gestation for the purpose of PMTCT. |

**Antiretroviral therapy may be initiated when patients, including HIV positive pregnant women, satisfy the above stated criteria:*

Table 4. Criteria for precluding initiation into ART**

| Criteria |
|---|
| 1. The patient is not motivated. (i.e. the patient shows no real interest or commitment, in starting treatment. In this instance counseling will be continued until motivation is established). |
| 2. Patient does not complete at least 2 sessions of pre-treatment adherence counseling |
| 3. Treatment is not sustainable, e.g. the person is not able to cope with follow-up visits, or facility is unable to assure continuity of care. |
| 4. No laboratory monitoring is possible |
| 5. The patient presents with severe hepatic (Liver Function Tests (LFT) > 5 times the upper limit of normal) or end stage renal disease. |
| 6. The patient has an acute opportunistic infection. In this case these acute opportunistic infections must be treated before initiation of antiretroviral therapy e.g. to avoid immune reconstitution syndrome (IRIS). |
| 7. The patient has a terminal medical condition. |

***Antiretroviral therapy shall not be initiated whilst the following circumstances prevail:*

Table 5. Selection of PLHIV into antiretroviral therapy

| Steps | Verdict [No Access] | Eligibility Consideration | Verdict [Grant Access] |
|-------|---|---------------------------------------|--|
| 1 | | ✓ HIV+ person | |
| 2 | | ✓ Meets clinical eligibility criteria | |
| 3 | | Assessment of likely adherence | |
| 4 | ✗ If found to be unlikely to comply/adhere, PLHIV is excluded | | ✓ If found to be likely to comply, PLHIV is eligible to enroll in treatment |
| 5 | | | <p>Likely to comply & is:</p> <ul style="list-style-type: none"> • Pregnant women/PMTCT • PEP (health workers and rape case) • HIV+ mothers from PMTC programs • Children • Participants in research projects involving ART <p>[then, immediate access for free is granted; but uptake is conditional on availability of ARVs; hence rationing]</p> |

2.3 Human rights and key populations in HIV response

Various rights-restricting policies and criminal laws exist in relation to the activities of MSM and other key populations in the context of HIV. These laws and policies criminalize both their activities and services intended to uphold their positive rights (Jürgens, Csete, Amon, Baral, & Beyrer, 2010). Amon et al. write about the use of antiquated and non-specific legal codes to harass, intimidate or justify the use of force against sex workers (Amon et al., 2012). A 2009 UNAIDS guidance note on HIV and sex work cited the existence of specific discriminatory laws against homosexuality and transgenderism (UNAIDS, 2009). Overs and Hawkins cite a Malawian Newspaper decrying the notorious use of vagrancy laws to criminalize sex workers in Malawi (Overs & Hawkins, 2011). Evidence also exists to the effect that in settings where these groups are not directly criminalized, rights-neutral policies result in widespread stigmatization and discrimination with impunity (*ibid*).

An analysis by Persson et al. uncovered that consensual same-sex sexual activity is illegal in 76 to about 86 countries globally (Persson, Ellard, Newman, Holt, & de Wit, 2011). Thirty eight of the 54 African countries criminalize same-sex relationships and punishment ranges from imprisonment to death (Altman et al., 2012). Blackmail and extortion of this group are on the ascendency (Thoreson & Cook, 2007). Viewed as Euro-American decadency, same-sex relationships, according to some scholars are feared, despised and regarded with disdain and disgust in certain African communities (Altman et al., 2012; Sahay, Reddy, & Dhayarkar, 2011). Some see such relationships as a condition that ought to be cut out and exposed before it becomes a spreading cancer in other men. Others have described this conception as the “pathologisation” of same-sex relationships. Evidence from Senegal, Malawi, and Uganda support this (Persson et al., 2011).

In Senegal, for example, leaders and staff of a programme developed to support MSM were sentenced to 5 years for sodomy (Jürgens et al., 2010). Similar actions have occurred in Malawi, and Uganda. The Ugandan Anti-Homosexuality Bill (once referred to as the "Kill the Gays Bill") received global criticism in times past (Malone, 2011). As a proposal, the Bill suggests that sodomy be made a capital offense. It also criminalizes the failure to report individuals suspected of engaging in homosexual behaviors, and targeted violence against individuals identified as MSM (Jürgens et al., 2010).

2.3.1 Criminalization of MARP in Ghana

In Ghana, as in other African settings, the prevailing view of MSM is that, it is a Euro-American perversion, which if not confronted can contaminate other minds. Such framings pose serious challenges to attempts that seek to provide services to this group. The public impact of this attitude is significant. According to local studies (Bosu et al., 2009; GSS et al., 2009a), key determinants of HIV in Ghana include marginalization of MARP, multiple concurrent partnerships, and stigma and discrimination. The most recent ‘country progress report’ by the GAC to UNAIDS notes that MARP 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 (GAC, 2012). Legal barriers also hinder service providers from reaching these groups.

It is worth noting that many of Ghana's laws and policies indirectly support the human rights issues related to HIV and AIDS. Notable among them are: The 1992 Constitution of the Republic of Ghana. Article 17 of the Constitution protects all persons against discrimination and upholds fundamental human rights. It states: "All persons shall be equal before the law. A person shall not be discriminated against on grounds of gender, race, ethnic origin, religion, creed or social economic status" (The Constitution of the Republic of Ghana; 1992). The Patient Charter, the Ghana AIDS Commission Act of 2002 (Act 613), the currently being drafted HIV and AIDS Bill, and the National HIV policy of 2012 are all rights upholding human equality and freedom from discrimination. Unfortunately such documents do not wield the same level of compulsion as the discriminatory laws of the Ghana Criminal Code (Criminal Code of the Republic of Ghana, 1960). Section 276 of the Criminal Code 1960 (Act 29) criminalizes prostitution and soliciting for sex, homosexuality and lesbianism. Of the various mechanisms put in place to ensure that these laws are implemented, the Police Service established under the Police Act 1970 plays a central role.

2.3.2 Human rights doctrine, international guidelines, and the rights of MARP

Human rights are protected under international law, under regional systems, and by national constitutions (Boggio et al., 2008). Some of the basic human rights are asserted in the morally-binding Universal Declaration of Human Rights (UDHR), adopted in 1948 by the General Assembly of the United Nations. Ghana is a signatory. Founded upon the non-derogable rights to life, the UDHR affirms in Article 25[1]: "every one (*including MARP; emphasis is mine*) has the right to a standard of living adequate for the health and wellbeing of himself..." (United Nations, 1948). Subsequent international human rights instruments have not only expanded this, but have also made human rights law legally-binding. The International Covenant on Civil and Political Rights (ICCPR) requires member states to respect and ensure civil and political rights. Codified in the International Covenant on Economic, Social and Cultural Rights (ICESCR), and in line with the WHO Constitution (WHO, 1946). Article 12 of ICESCR states that "the States Parties recognize the right of everyone (it is my belief that the drafters meant everyone without qualification when they wrote everyone) to the enjoyment of the highest attainable standard of physical and mental health (United Nations, 1966).

Paul Sieghart emphasizes the distinction that is often made in human rights law and practice between 'negative rights' (paraphrased as the right to be left alone), and 'positive rights' (meaning the right to be provided by governmental or other authorities, with means to enjoy

opportunities) (Sieghart, 1983). Analogously, human rights impose negative and positive obligations on the State – refraining from interfering with human rights-holders’ enjoyment of, and enacting positive measures so that rights-holders are in a position to enjoy, their rights (in this case, the rights to health). I shall discuss in Chapter four, the rights of MARP to health as positive rights.

CHAPTER THREE

3.0 Assessment procedures and findings

This chapter presents the findings of the study. Preceding these is a synopsis of the methods employed in analyzing the guiding documents– the ethics sensitivity assessment.

3.1 Ethics sensitivity assessment

This analysis identifies ethical tensions and inadequacies in Ghana's public health response to HIV. Such deficiencies negatively influence roll out, uptake, and utilization services. The most recent programmatic guidelines, policies, and strategies directing Ghana's response to her HIV epidemic were collected and reviewed by the author. Four key documents were purposively accessed. These were the national HIV strategic plan for the period 2011-2015; the national HIV and STI policy (dated 2012); the national guidelines for prevention of mother-to-child transmission of HIV (dated 2008); and the guidelines for antiretroviral therapy (ART) dated August 2010. These key documents were selected because they address all the key domains of the HIV response in Ghana: prevention, treatment and impact mitigation. All four guiding documents were officially requested, and obtained from the Ghana AIDS Commission, both as hard/printed copies and in portable document format (pdf). These documents were assessed in their entirety.

To identify ethical tensions, ethics deficiencies, ethics sensitivity of the documents, each was systematically examined using the lenses of existing ethics frameworks (summarized in Table 1). The specific frameworks consulted were: Frameworks for analyzing public health programs (Kass, 2001), public health practice (Childress et al., 2002), and human rights impact assessment of public health policies (L. Gostin & Mann, 1994). Taken in turn, the contents of the four national guidelines were compared to the ethical principles, recommendations, and the truths delineated in the stated ethical frameworks. From these examinations emerged deficiencies, ethical tensions, violations or insensitivity. Relevant articles from the international bill of rights were also utilized. Principles and frameworks guiding ethical allocation of scarce resources were also invoked in the analysis. This analysis does not involve human subjects and so does not require review and approval by an Institutional Review Board (IBR).

3.2 Findings

The guidelines I reviewed have many strengths. There are also notable weaknesses, of which ethics deficiency is one. This thesis' primary objective is to lay bare the ethics-related deficiencies and tensions. That is to state, and to discuss the guidelines' failure to address real or potential ethical challenges and tensions. The discussion focuses on three themes/tensions: rights of key populations to public health services; geographic/regional prioritization of HIV interventions; allocation of, and access to HIV prevention, treatment, and care services/commodities. Also discussed are the ethical tensions of the current adaptation of treatment as prevention (TasP) in Ghana. The discussion is preceded by synopses of each of the four guiding documents reviewed.

3.2.1 The guidelines

Section 4.1 provides synopses of each of the four guidelines. It summarizes their objectives, structure, and contents.

3.2.1.1 The Ghana National HIV and STI Policy

The drafters of the policy state that its overall goal is to halt and reverse the spread of HIV infection in the general population and in key and vulnerable populations. The policy also offers guidance on treatment, care, and support and control of sexually transmitted infections (STIs).

Like its predecessor, the 2012 edition of Ghana's HIV Policy is guided by dictates of the 1992 Constitution of the Republic of Ghana. It draws on other government policies, international conventions, and protocols, including the Millennium Development Goals (MDGs). The policy prides itself in outlining guidance on human rights and legal and ethical issues (National HIV / STI Policy, 2012; paragraph 6 of the policy, page xi;). The drafters of the policy are convinced that it supports a conducive legal framework with political, economic, social, and cultural responses. A careful reading of the policy reveals that it draws heavily on the Patient's Charter of the Public Health Act of Ghana (Act

851)¹⁷. The policy advocates for an HIV and AIDS prevention law and provision of information to the public about their health rights.

The policy prohibits any form of discrimination against a person infected or affected by HIV. The policy enjoins public and private institutions to develop workplace HIV and AIDS policies. The right to privacy and confidentiality is safeguarded in the policy; there are some exceptions¹⁸.

The policy states expressly that the criminalization of key and vulnerable populations is unacceptable (and that referrals instead be made to care and support services). This is in contrast with the substance of the *Criminal Offences Act, 1960* (Act 29). This Act (Act 29) criminalizes such vulnerable populations as sex workers and MSM.

The policy is structured as follows: Following the introductory matter is a statement of the policy's guiding principles, rationale, goals, and objectives. Eleven other sections follow: Human rights, legal and ethical issues; prevention of HIV and STI infections; treatment, care, and support; mitigation of social and economic effects of HIV and aids; community systems strengthening; public sector policy, roles and responsibilities; private sector policies, roles, and responsibilities; national HIV/STI workplace policy; research, monitoring and evaluation; and funding mechanisms.

¹⁷ The Charter is made to protect the rights of the patient in the Ghana Health Service. It addresses the rights of the individual to an easily accessible, equitable and comprehensive health care of the highest quality within the resources of the country; respect for the patient as an individual with a right of choice in the decision of his/her health care plans; the rights to protection from discrimination based on culture, ethnicity, language, religion, gender, age and type of illness or disability; and the responsibility of the patient/client for personal and communal health through preventive, promotive and simple curative strategies.

¹⁸ Information about the HIV status of a person should not be disclosed without the informed consent of the PLHIV, except: Where provided by law; To a healthcare provider who is directly involved in providing healthcare to that person, where knowledge of the patient's HIV infection is necessary to make a clinical decision in the best interest of the person; For the purpose of an epidemiological study, where the release of information cannot be expected to identify the person to whom it relates; and in a court order, where the information contained in the medical file is directly relevant to the proceedings before the court.

Stated strategies towards achieving the goal of the policy include: behavior change communication (BCC), information, education, and communication (IEC) campaigns; HIV testing and counseling (HTC); elimination of mother-to-child transmission (eMTCT); blood and tissue transfusion safety; universal precautions; and post-exposure prophylaxis (PEP). Other strategies are prevention of STIs; use of preventive commodities; interventions for key populations; pre-exposure prophylaxis (PrEP); treatment as prevention; male circumcision; gender-based violence prevention and response strategies; and HIV and AIDS surveillance. One of the ethical tensions discussed in this chapter is whether Ghana ready for TasP and PrEP, given her current circumstances.

3.2.1.2 The Ghana national strategic plan (2011 – 2015)

The National Strategic Plan for HIV and AIDS was developed to direct the implementation of the total response to HIV and AIDS from 2011 – 2015. The NSP has targets that aim at achieving universal access to HIV treatment, care and support services and resources. One of the targets is that 85% of PLHIV eligible for ART should be receiving it by 2015. Another objective of the strategy is to reduce by half the HIV infections by 2015, with a virtual elimination¹⁹ of mother-to-child transmission of HIV. The drafters of the plan made some prioritization focusing on target population, regions, and thematic areas.

The plan has fourteen distinct sections, with sections 1 containing the introductory matter; section 2 provides HIV situation and response analysis; section 3 delineates the plan's priorities, guiding principles and impact; section 4 covers prevention of new HIV infections; sections 5 and 6 details HIV treatment, care support, and impact mitigation strategies. Section 7 is dedicated to Health Systems Strengthening. The other sections are community systems strengthening; public sector response; funding mechanisms; policy

¹⁹ “Virtual elimination” of mother-to-child of HIV infection is defined as the reduction of MTCT to less than 5% (WHO, 2010a).

and advocacy; coordination and management; strategic information. The 14th details costing methodology, estimated financial resource needs, and financial gap analysis.

Like the national policy, the plan states expressly that TasP will be leveraged as an HIV prevention strategy. The plan acknowledges the perennial shortage of ART and other HIV prevention and treatment commodities, but does not provide guidance on allocation of the scarce commodities.

3.2.1.3 The national PMTCT guidelines (July 2008)

Developed in July 2008, the current guidelines direct PMTCT and related actions in Ghana. PMTCT broadly encompasses “a comprehensive family-centered continuum of promotive, preventive, clinical and supportive services provided in conjunction with other public health interventions to prevent the transmission of HIV from a mother to her infant(s)”. The goal of this approach is to provide a package of clinical and public health interventions to limit the proportion of newborns infected with HIV.

The current version of the guidelines has a strategy. Key components of the strategy are: Primary prevention of HIV infection; prevention of unintended pregnancies among women infected with HIV; prevention of HIV transmission from women infected with HIV to their infants; provision of treatment, care and support to women infected with HIV, their infants and their families. The document also has seven guiding principles²⁰; ethics is not explicitly mentioned as one; equity is, however, mentioned. The interventions delineated in the document target HIV positive women during pregnancy, labor, and delivery, as well as newborn/infant nutrition. As at the end of 2009, only 3,643

20 a. A public health approach for increasing access to PMTCT services; b. Delivering a comprehensive package of services based on the UN strategic approach to the prevention of HIV infection in infants and young children; c. Integrated delivery of interventions for PMTCT within maternal, newborn and child health services including links between the services; d. Women’s health as the overarching priority in decisions about ARV treatment during pregnancy to improve maternal and child survival (giving priority to providing antiretroviral therapy for treating eligible pregnant women); e. Necessity for highly effective ARV regimens for eliminating HIV infection in infants and; f. Urgent need to scale up to achieve national coverage and universal access aiming for impact and equity; g. Emphasizing partnerships and participation of people living with HIV and communities and male involvement.

positive pregnant women had received ARVs for PMTCT out of a targeted 6,800 in 793 PMTCT centers across Ghana. About 5,000 PLHIV had received ARVs in 2008.

The guidelines further emphasize the routine offer of HIV testing and counseling to all pregnant women and with the provision of triple antiretroviral treatment or prophylaxis to all eligible mothers from 14 weeks of gestation till one week after the cessation of breastfeeding. Also, all exposed infants are to be provided with ARV prophylaxis for the first 6 weeks of life.

The guidelines cover the following themes: The Strategy for PMTCT in Ghana; Approach for the Provision of PMTCT Services in Ghana; Guiding Principles for HIV Testing for PMTCT in Ghana; HIV Testing Strategies for PMTCT; Recommended Protocol for Antiretroviral Medications in Pregnancy; Care for the HIV Infected Women and the Newborn; Care for HIV Infected Women and Women of Unknown Status after Delivery; Diagnostic Testing Of Infants And Young Children Exposed To HIV; Psychosocial and Community Support; PMTCT Drug Logistics

3.2.1.4 The national guidelines on antiretroviral therapy

Antiretroviral therapy has been available in Ghana since June 2003. The number of treatment sites has increased from 2 in 2003 to over 138 in 2009.

Following the publication of guidelines for the care of PLHIV by the World Health Organization (WHO, 2010b) the guidelines for ART in Ghana were updated to the current third edition. The highlights of this edition (as per page 7 of the document) are as follows:

A review of the list of recommended ARVs for use in Ghana; the current list excludes Stavudine, Nelfinavir and Didanosine,

A reconstruction of first and second line regimens and options consequent to the above for both adult and pediatric care,

Amendments to treatment of HIV co-morbidities,

Revised criteria for initiation of therapy for infants and children,

Inclusion of guidelines for viral load testing and
The expansion of PEP to include the management of rape survivors.

The objectives of the guidelines include provision of information and standards of care on ART in Ghana, provision of guidance on monitoring of ART; provision of comprehensive care and counseling in ART; and providing direction on logistics management and information for Antiretroviral drugs. This does not cover drug allocation modalities.

The drafters of the guidance recognize that provision of ART is a lifelong activity and thus needs distinctive strategies to ensure its effectiveness. Delineated strategies are: capacity building; health system strengthening (focus on improving logistics management, pharmacy and laboratory services, quality of care, partnerships and linkages); rational selection and sequencing of drug regimen; maximizing adherence to the selected regimen; preservation of future treatment options; and monitoring of HIV drug resistance.

The current ART regimen recommended for the treatment of PLHIV in Ghana are based on the principles of:

- Rational selection and sequencing of drug regimen
- Maximizing adherence to the selected regimen
- Preservation of future treatment options
- Use of HIV drug resistance testing in selected clinical settings

Ghana uses triple combination of antiretroviral (Highly Active Antiretroviral Therapy). As of December 2009, about 138 public and private facilities were providing ART in all regions and about 60% of districts. The cumulative number of persons accessing treatment increased from 2,017 adults and children in four sites in December 2004, to 33,745 by the end of 2009. It is estimated that 123,245 PLHIV (110,494 adults and

12,751 children) shall be put on ART by the year 2015 in line with universal access targets.

The guidelines provide direction on eligibility for accessing ART (which are discussed later in the chapter) but not on allocation of this scarce commodity. As in the other guiding documents, there are no real plans in this document to address the chronic shortage of ARVs in the country. While acknowledging the chronic shortages of ARVs, the national guidelines on antiretroviral therapy does not in a meaningful manner address this problem. The HIV treatment programme in Ghana is supported by the Global Fund to fight AIDS, Tuberculosis and Malaria (GFATM) and other partners. This support is in the form of capacity building, procurement of drugs and logistics among others. The cost of care²¹ per month has been substantially subsidized by the Government of Ghana to GH¢5 (US\$2.5 equivalent). Per the guidelines, the Ministry of Health is mandated as the sole agency for the importation, and distribution of HIV and AIDS drugs and other related commodities in Ghana.

The guidelines cover the following themes: ART in adults and adolescents (≥ 13 years), ART in children < 13 years; management of hepatitis B virus co-infection with HIV, post exposure prophylaxis for health care workers and rape survivors; health care workers, rape survivors; guidelines on ART counseling; data management; procurement, storage and distribution of ARV drugs.

²¹ Per the guidelines, care includes a month's supply of ARV drugs, opportunistic infections treatment drugs, laboratory and other investigations, and services. Given that the government subsidizes monthly supply of ARVs, clarity is need regarding cost-sharing between the GoG and the GFATM and other partners.

3.3 Ethical tensions and deficiencies of guiding documents

This section addresses three of several ethical deficiencies and tensions identified in principal guiding documents of Ghana's HIV response. These three are considered key by the author. This review reveals that, notwithstanding the enviable successes chalked on public health aspects of the epidemic, palpable efforts to address ethical issues remain nascent.

First, no efforts are made in the guidelines toward decriminalizing key populations or uplifting their diminished rights. While there is evidence of near universal awareness of HIV, discriminatory laws²², and widespread stigma vented out especially towards two key populations (MSM and FSWs) persists. The guiding documents reviewed have not adequately addressed these topics.

Whilst there is universal acknowledgement of the chronic shortage of ARVs in Ghana, there is no provision for addressing perennial ARV shortages or clear guidelines concerning how to ethically allocate this scarce commodity. Both the National Policy, and the NSP, in listing HIV preventative strategies include treatment as a prevention strategy (TasP), and pre-exposure prophylaxis (PrEP). Given that Ghana is not able to meet the ARV needs of most²³ of those who qualify to be on treatment, will it be ethical to divert ARVs from treatment to prevention? In other words, is Ghana ready for TasP and PrEP?

Ethically sound justifications for "geographic prioritization" of public health interventions are not clearly articulated in the documents. Even though all the guiding documents prescribe that HIV services be provided to everyone in need without qualification, the NSP presents some prioritizations. Using HIV prevalence, or geographical locations of key population as indicators, six of the ten regions of Ghana are

²²Section 276 of the Criminal Code 1960 (Act 29) criminalizes prostitution and soliciting for sex, homosexuality and lesbianism.

²³ The percentage of eligible adults and children who received antiretroviral therapy in 2009 were 30.5% and 14.8% respectively.

prioritized or targeted. The reviewer finds the justifications given for such prioritizations adequate by public health standards, but anemic – when viewed with an ethics lens. These issues are discussed, each taken in turn.

3.3.1 Rights of key populations to public health services

This section focuses on two of the HIV guiding documents reviewed – the NSP, and the national policy. These two documents not only have the mandate, but are well placed to provide overall direction and specific protection of the needs of key populations. The documents seem comprehensive; they provide the essential public health guidance and actions. The documents certainly are supportive of key populations. The NSP contains measures to address the HIV epidemic among key populations. Both documents advocate that public health institutions provide public health services to key populations. But in the context of ethics, challenges as well as tensions abound. While measures to address the HIV epidemic among key populations are outlined, specific actions to ensure that these services are key population-friendly or ethically sound are debatable. The negative public health implications of criminalizing key populations are acknowledged in these guiding documents. To explore these, I begin with a brief articulation of the aspects of the NSP and policy that speak to the issues. I then discuss in detail one key ground on which the ethics sensitivity of the documents can be questioned.

The NSP acknowledges key populations as a driver of the HIV epidemic in Ghana and prioritizes them as a key target group for HIV prevention services. The NSP mentions an integrated approach that ensures that key populations access a wide range of HIV services through one service point. The services mentioned are reproductive health and family planning services, peer education, condoms, lubricants, HIV testing and counseling, STI diagnosis and treatment, eMTCT and HIV prevention information that is specific for each category of key population. Treatment services include ART, and management of opportunistic infections (OIs)²⁴. To address key population-friendliness of the services, two-pronged strategies are proposed – preventative outreach services

²⁴ It was not within the remit of the thesis to confirm the actual implementation of these

based on peer-group interventions and curative services implemented by NGOs in partnership with Ghana Health Services.

Both the NSP and the national policy nevertheless, admit the existence of numerous challenges and gaps regarding how these services can be delivered. The NSP blames the absence of population size estimates of key populations for its inability to design a comprehensive package of HIV services. I add to this list of public health-related challenges, one ethical challenge/tension that is also apparent, but not addressed satisfactorily by the authors of the documents. That is the rights of key populations. A careful reading of the guiding documents reveals the lack of clear guidance and actions for addressing the national social hostility to key populations (particularly MSM and FSW). The NSP and the policy acknowledge that threats of incarceration and stigmatizing behavior towards MARPs by some members of the Ghanaian population are a daily reality. Cognizant of these threats, drafters of the policy dreamed of a policy that "...supports a conducive legal framework with political, economic, social, and cultural responses". Even though the policy theoretically prohibits any form of discrimination against a person infected or affected by HIV, or criminalization of key and vulnerable populations, its proposals are undermined by the Criminal Offences Act, 1960 (Act 29). Section 276 of Ghana's Criminal Code 1960 (Act 29) criminalizes prostitution and soliciting for sex. The Code's chapter 6 "Sexual Offences Article 105" criminalizes homosexuality and lesbianism. Unfortunately, in Ghana, interpretations of these laws cover FSW and MSM. And yet, there is no call/strategy in the guiding documents for decriminalizing activities of key populations. There are also no attempts by the documents to eliminate these outdated codes.

I now draw on Gostin and Mann's framework for human rights impact assessment of public health programs, the International Bill of rights, and other doctrines to discuss how criminalization of key populations is unethical and violates their rights. The NSP and the policy's ethical deficiencies stems from their inactions or failure to provide clear guidance for uplifting the diminished rights of criminalized key populations.

Sieghart (1983) discriminates between two kinds of rights - 'negative rights' (sometimes paraphrased as the right to be left alone), and 'positive rights' (meaning the right to be provided by governmental or other authorities, with means to enjoy opportunities). Analogously, human rights impose negative and positive obligations on the State – refraining from interfering with rights-holders' enjoyment of, and enacting positive measures so that rights-holders are in a position to enjoy their rights (in this case, the rights to health). I discuss the rights of key populations as positive rights. With this background, such actions of Act 29, and inactions of the NSP and national HIV policy directly and indirectly prevent or inhibit key populations' access to services – by extension a curtailment of their positive rights.

Perhaps a summary of the impacts of criminalizing key populations would be useful. I have provided in chapter two, arguments and evidence that speak to the fact that criminalizing the activities of key populations hinders provision of HIV services to them and is self-defeating. A plethora of scholarship speaks to the fact that criminalization limits the ability of healthcare workers to provide essential HIV prevention services (Jürgens et al., 2010; Poteat et al., 2011; S. Singh, Pant, Dhakal, Pokhrel, & Mullany, 2012). I now reiterate here, in the context of HIV, the glaring impacts of this on both key populations and the general population. Wade et al. showed in Senegal an HIV prevalence of 21.5% among MSM compared to 0.2% among other men (Wade et al., 2010). The most recent available estimates show the prevalence of HIV among key populations to be over ten-fold higher than in the general population in Ghana (Bosu et al., 2009). With these disparities in mind, Persson et al. describe criminalization of key populations as “adding insult to injury” (Persson et al., 2011). Worryingly, the Ghanaian MSM is not just an MSM, but may be an MSM with a wife or wives, or 'girl friends'. Already acknowledged as a bridging population, there is no denying the fact that whatever affects such MSM directly, affects the general population indirectly.

Having established that MARPs' right to health as a positive right, and the fact that criminalization laws rob them of their rights to health, I now present human rights arguments that have been made against legal codes that criminalize and penalize key populations as well as health services targeted at them. I have provided in chapter two, a review of relevant human rights doctrine, and international guidelines in this context.

In 2001, all UN member states including Ghana, endorsed a commitment to protect human rights in the global fight against HIV and to ensure universal access to HIV prevention, treatment, care, and support (UNAIDS & WHO, 2001). Yet efforts at pressing for key populations' rights to health (which includes universal access to HIV prevention services) has been ineffective in compelling Nation States to fulfill this promise. A popular argument in support of limiting the rights of MARP has been the protection of public safety and morals. Even though, in the name of protecting public safety, and public morals, international law provides for certain measures to be invoked as a ground for limiting certain rights (WHO, 2007), such governmental actions, according to earlier guidelines must protect and advance the health of the population as a whole (WHO, 2001).

In the public health context, the legal standards for assessing whether limitations on human rights are valid are addressed in the Siracusa Principles (United Nations, 1985). These principles hold that for a restriction of a human right to be considered legitimate, a government has to address five criteria: 1) the restriction is provided for and carried out in accordance with the law; 2) the restriction is in the interest of a legitimate objective of general interest; 3) the restriction is strictly necessary in a democratic society to achieve the objective; 4) there are no less intrusive and restrictive means available to reach the same objective; and 5) the restriction is based on scientific evidence and not drafted or imposed arbitrarily. Reflecting on the discussion thus far, it can be argued that whilst the current criminalization policies in Ghana are legal, they cannot be said to be ethical or nondiscriminatory. A careful look at the Ghanaian context reveals that criteria #s 2 and 5 are not met. Also drawing on Gostin and Mann's framework for a human rights analysis

of such policies (L. Gostin & Mann, 1994), a reasonable extrapolation to this discussion can be that a legal code or a policy providing guidance on this subject matter must have a goal of maximizing the benefits to the population, not just penalizing ‘offenders’. The current criminalization policies and laws seek to do the latter.

Invoking the above rights arguments and doctrine, the UN Human Rights Council in 2009 adopted a resolution that urged States to eliminate laws that are counterproductive to HIV prevention, treatment and care including those that violate the rights of populations key to the dynamics of the epidemic and particularly affected by it. The UNAIDS Joint Outcome Framework of the same year made the removal of laws, policies and practices that block effective action on HIV a priority. It also mentioned sex work as part of a broader human rights agenda (UNAIDS, 2009). Other international organizations in their bid to address the situation for MSM have launched other programs. UNESCO for example has been supportive of efforts that call on governments to eliminate the unacceptable and devastating prevalence of lesbian, gay, bisexual, transgender and intersex bullying around the world (UNESCO, 2012).

Aware that Ghana is a signatory to all the human rights documents discussed, particularly the commitment pledging to “enact, strengthen or enforce, as appropriate, legislation, regulations and other measures to eliminate all forms of discriminatory tendencies, and to ensure the full enjoyment of all human rights and fundamental freedoms of vulnerable groups (*including key populations; emphasis is mine*)”, the authors of the Ghana’s HIV guiding documents should have pressed forward for decriminalization of key populations.

Privy to recent local arguments on this subject, and drawing on antislavery rhetoric and discourses, I suggest two ways to address the problem. These approaches are the abolitionists’ and instrumentalists’. The abolitionists approach, should be in line with the UN Human Rights Council call of 2009 for States to eliminate laws that are counterproductive to HIV prevention, treatment and care, argue for complete and

immediate repeal of all rights-limiting laws including sections of the Criminal Code of the 1960 that deny key populations their positive rights.

The instrumentalist approach recognizes that legal codes can't be repealed overnight, and would allow for flexibility for public health services to be delivered to persons engaged in legally outlawed activities, as doing so will ultimately impact positively on the health of the general population. The recent pilot of "Drop In Centers (DICs)" in Ghana may be a sign that Ghana is buying into the problematized instrumentalists approaches. The GAC is currently collaborating with various non-state actors to pilot peer-educators' led "Drop-In Centers and MARP-friendly clinics". These seek to link key populations to the continuum of care for HIV-related services. Even though this thesis prefers decriminalization, a moderate call for unfettered government's support for the delivery of public health services to key populations, without legitimizing their status in the legal codes, may be a start.

3.3.2 Geographic prioritization of public health services

All the guiding documents reviewed prescribe that HIV services be provided without qualification to everyone in need. The NSP, however, presents some prioritizations with respect to rendition of HIV preventative, treatment and care services. Section 3.1.2 details priorities of the NSP 2011-2015. Such priorities according to the authors of the NSP were identified based on situational and response analyses and taking into account the need for the strategic plan to support progress towards universal access targets. The prioritization is focused on three dimensions: target populations, regions and thematic areas.

Populations that engage in high-risk sex or are vulnerable to HIV infections based on their occupation, lifestyle, cultural and gender factors are considered priority for the NSP. The NSP prioritizes FSWs, MSMs for HIV prevention interventions.

Six of ten regions are also identified as priority regions. The Greater Accra, Ashanti, Central and Eastern regions recorded increases in the rate of HIV prevalence based on

local sentinel surveillance data preceding the NSP. These regions also have a high presence of hotspots for sex workers and MSM and a higher percentage of men and women with multiple partners, as well as those reporting paying for sex. The Northern and Upper West regions were two regions that recorded the highest rate of increase in HIV prevalence among pregnant women in 2009 compared to 2008. A special case is made for the inclusion of the Western region, even though the region did not meet the high HIV prevalence and other criteria. The drafters, however, argued that the region was likely to see an upsurge in immigration as oil and gas industry activities (a new industry) increase in the region and the likelihood of increase in HIV prevalence as the scale of commercial activity and migrant workers increase as a result of the mentioned industrial activities.

HIV prevention is the only thematic area prioritized. The NSP argues that given the low HIV prevalence in Ghana, HIV prevention with the aim of reducing new infections among MARPs and other vulnerable populations and virtually eliminating Mother to Child Transmission of HIV should be prioritized. The prioritization and allocation of scarce treatment and care resources are discussed in the next section (4.2.3).

Living in a world with multiplicity of needs, and scarce resources, priority setting becomes a norm rather than the exception. Prioritization is not new in public health. It entails the development of a specialized health intervention approach for a specific group of people, identified by various factors, including geography, race/ethnicity, age, and health issues. Prioritizing allows both health departments and communities to direct resources, time, and energy to those areas or issues that are deemed most critical in terms of need, or practical to address (Rimer & Kreuter, 2006).

Given this background, readers might want to ask why prioritization as described is a problem? I will like to push readers to consider problematizing the term in the context of ethical tensions that prioritization may produce procedurally or substantively. The potential ethical tensions the prioritization process are discussed.

The first potential tension relates to process. What is the basis or motivation for prioritization? Who determines what is prioritized? How is the prioritizing done? Which of the many prioritization methods available is chosen, and why? A reading of the NSP reveals the first two questions were adequately addressed. The NSP employed both epidemic and situational approaches to synthesize available data and identify the key aspects of the epidemic that the NSP needs to prioritize. The process was also said to be deliberative as a prioritization workshop was organized. This workshop brought together a wide range of stakeholders to ensure consensus and ownership of the priorities identified. Then followed a series of regional consultative workshops where stakeholders at the district and regional levels came together at regional consultative workshops to review the draft strategic plan and provide inputs.

The drafters of the NSP also received significant inputs from Thematic Working Groups, whose constitution was comprehensive, and seemingly deliberative or all-inclusive. Membership of the various thematic groups did not include ethicists or bioethicists; probably due to their rarity in the setting. Notably, and as is the norm in the setting, ordinary Ghanaians did not have a voice in the development of the NSP. It is vitally important to include the community when defining prioritization criteria. This question of who gets to make the key decisions in a prioritization process is an important one both ethics-wise and public health sense. In an open democratic society, the development of very important documents such as the NSP ought to follow democratic and deliberative processes.

The second tension with prioritization relates to its unintended consequences. For instance, whole communities, or the regions prioritized could be stigmatized just by the mere process of being prioritized. Especially in this instance where key populations (who are themselves stigmatized) and high HIV prevalence are inclusion criteria. To discuss this particular ethical tension, I draw on Kass' work. Kass suggests that interventions targeting already vulnerable segments of the population may face certain ethical

challenges (Kass, 2001). Targeting, she notes, may create stigma that some segments of the population or communities, or regions in this case are more vulnerable to certain diseases, which might result in social harms, such as psychological distress and discrimination. There is no denying the potential that such targeting initiatives could contribute to HIV prevention, but a possible stigma that it may create is that members of the prioritized regions are high-risk population for HIV infection. This stigma may create anxiety and panic among the targeted population. Viewed from another angle, if a region or subgroup were never targeted with interventions, they may perceive themselves as not at the risk of HIV infection and hence may initiate or continue engaging in risky behaviors.

The alternative view stated above in a way relates to the third ethical tension associated with prioritization. Avoiding the sins of under inclusion or over inclusion. Gostin and Mann's 1994 framework may be consulted once again for guidance. As far as I can tell, efforts to avoid either under – or over – inclusions were not stated in the NSP. Per the recommendations of Gostin and Mann, the current prioritization in the NSP may not be said to be well targeted. The current arrangements affect individuals in the targeted regions who do not require the interventions (NSP is guilty of sins of over-inclusion), and yet fail to include individuals in the regions not targeted who are in dire need of the interventions (guilty of sins of under-inclusion). Indeed, given the democratic credentials of Ghana, and her pride in free movement of people, blank targeting or prioritization of whole regions is problematic. The density of the stated priority population may fluctuate without any warning.

The notion of having to prioritize or determine which regions of Ghana require HIV preventative interventions most, and which do not, is an odious one, ethically speaking. Given these ethical tensions, it is only natural that, whenever health programs or resources have to be unequally allocated they be done with these discussions in mind. The ethical standards and frameworks drawn upon in this discussion if consulted before

or during the prioritization process can provide guidance concerning how to maximize beneficence while having unintended consequences minimized.

3.3.3 Access to prevention, treatment, care and support services

The two issues (sustainable provision of essential commodities, and guidelines for allocation of said commodities during shortage) are addressed together because, they are largely interdependent. Given that there is universal acknowledgement of the chronic shortage of ARVs in Ghana, the review particularly sought to find out if there were provisions in the guiding documents to sustainably address the perennial ARV shortages. Confirmation of the existence of clear guidelines on how to ethically allocate this scarce commodity was the second objective. Third, listed as HIV preventative strategies in both the policy and NSP include TasP, and PrEP. Given that Ghana is not able to meet the ARV needs of most of those who qualify to be on treatment, I will discuss whether it is ethical to divert very scarce ARVs from treatment to prevention.

I provide some brief background to Ghana's ART journey as a prelude to my discussion of these issues. The provision of antiretroviral therapy in the public health care system in Ghana started in June 2003 at two pilot sites in the Manya Krobo district of the Eastern Region. This was part of a comprehensive care package that also included the provision of HIV testing and counseling, and prevention of mother to child transmission, management of sexually transmitted infections and opportunistic infections.

Treatment scale-up efforts resulted in about 64% of identified and eligible pregnant women receiving ART for PMTCT in 2011, while about 30% of the close to 100,000 adults and 14.8% of about 12,000 children eligible for ART received them in 2009 (GAC, 2012). Both chronic and erratic shortages of ARVs remain major challenges and are acknowledged by the guiding documents. Chronic shortages relate to a national inability to address the unmet need in national AIDS drugs needs. Erratic shortages take the form of unpredictable crises where some treatment centers experience local shortages.

While acknowledging these points, none of the guiding documents presents a clear, actionable plan to addressing the problem. The national treatment guidelines mention that continuity of supply of ARVs can be ensured by minimizing wastage, leakage, and abuse. Authors of the treatment guidelines are of the view that the current arrangement where Ghana's Ministry of Health is mandated as the sole agency for the importation, and distribution of HIV and AIDS drugs and other related commodities will address the problem of commodity shortage. No elaborations are given, and it is not clear to me how these measures ensure sustainability as argued.

The general laxity in putting the needed measures for sustainability may be blamed on developing countries' overreliance on donor support. Like other countries in the sub-region, Ghana for years has relied on donor support particularly the Global Fund, and the United States President's Emergency Fund for AIDS Relief (PEPFAR) for the care and treatment component of her HIV response. The authors of Ghana's HIV response guidelines are aware that models, which put Ghana at the mercy of continued funding from donors, are antithetical to sustainability. This is particularly critical given the dwindling of support after the attainment of Lower Middle Income Country (LMIC) status by Ghana. The 2014 budget statement and economic policy of Ghana confirms that Ghana's attainment of LMIC status has led to reduction in very soft and long term aid inflows and an increased difficulty of attracting concessional financing (GoG, 2013).

Ghana, like Brazil, should consider supporting local pharmaceutical companies to manufacture of ARVs for use by PLHIV in Ghana. Brazil has been engaged in a permanent effort to foster national production of ARV and to negotiate substantial discounts with international drug companies. Universal access to ARV therapy was established by Brazilian Federal Law No. 9.313 on 13 November 1996. This law states: "HIV-infected people and/or people living with AIDS are entitled to receive, at no cost, all medicines necessary for their treatment, from the National Health System" (Bastos, Kerrigan, Malta, & Carneiro-da-Cunha, Claudia Strathdee, 2001)

As Ghana's fight against HIV will be a long one, it will become sustainable only if it is owned by Ghana. Perhaps, a recent UNAIDS report titled "Efficient and sustainable HIV responses: Case studies on country progress" (UNAIDS, 2013) may be consulted for inspiration. The report, which consists of eight case studies written by country experts, highlights countries' progress in making their HIV response more efficient.

The first part of the report examines efficiency gains: countries that have re-allocated resources towards interventions that are cost-effective (referred to in the report as "allocative efficiency") and countries that have made their HIV programmes more efficient ("technical efficiency"). The second part highlights countries that have increased domestic resources for the HIV response ("sustainable financing"). Cambodia and Myanmar are profiled to have re-allocated resources towards high-impact interventions in their country-specific contexts. Kenya, Namibia, Malawi and Kazakhstan, according to the report, have taken active steps for a future with fewer external funds by developing options to increase and sustain funding for the HIV response (UNAIDS, 2013).

To discuss the second theme – who should have access to scarce resources/ARVs, I revisit Diagram 3, and I draw on the concepts and ethical principles reviewed in chapter two. As Diagram 3 reveals, not every HIV sero-positive person who wishes to have ARVs can have them. Medical eligibility criteria have to be met, and so should the adherence criteria. Even for those who manage to meet both criteria, and thus become eligible to enroll into ART, access is not automatic. ARVs are rationed. It is worthy of note here that, rationing or prioritization as discussed under the section 4.2.2 is not an inherently unethical activity. The question, however, is how it is planned, and executed. Given that this is unavoidable in Ghana's context, the relevant question becomes, how it should be done.

To lay persons, the fairest way to share scarce resources might be to use the principle of blind justice, which dictates a random allocation, or first-come first-served basis. Various

experts, however, see this as problematic. They provide justifications as to how life-saving, but scarce commodities can be shared more cost-effectively and ethically. To provide a meaningful response to the above question, I draw on the major ethical principles governing rationing. These range from first-come, first-served to the prioritarian approaches.

3.3.3.1 Rationing ARVs based on utilitarian principle

The most widely used principle in formulating health policy is the utilitarian principle (Macklin & Cowan, 2012). The principle's oft-cited statement – “the option with the best balance of beneficial over harmful consequences should be chosen”, according to Macklin and Cowan may be interpreted in one of many ways. Promoting the most efficient way to reach the desired goals - maximizing health benefits of those in need, dictates giving priority to PLHIV whose medical condition is such that they will respond better to ARVs and will be likely to survive for the longest time. This excludes patients whose HIV disease has progressed to a point where only a temporary health benefit can be expected.

The second interpretation regarding who to receive ARVs is valuation of the consequence. Offered by Macklin and Cowan (2012) this requires specifying which consequences are to count: is it preventing new opportunistic infections? Is it preventing deaths? Stated above, the central thesis of the principle seemingly simple, sometimes involves complex calculus on application. For instance, if rationing is to be done in the simple context of mothers vs. children, how effective will e.g. prioritizing children be overall? In the context of clinical indicators, how many deaths can be averted by prioritizing PLHIV with lower CD4 cell counts (the sickest) vs. those with higher CD4 counts albeit not exceeding the 350 cells/ml cut off point? To Ruth Macklin, a utilitarian approach to rationing ARVs could call for giving ARVs to the greatest number of PLHIV, even if some (the sickest) could benefit only temporarily. That is give all medically eligible people a chance to be treated, even if that option would not result in the best overall health outcome for the population (Macklin, 2004). The durability of

such a process unfortunately is not addressed by the author. It is worthy of note that in settings where shortages are significant, policy makers and services providers further face the dilemma of relaxing rationing criteria and pacing toward stock outs or stiffening them to delay total stock outs.

3.3.3.2 Rationing ARVs based on equity or equal worth principles

Equity as a principle deployed in allocating scarce resources, requires that resources be shared so that outcomes are distributed as equitably as possible. As a principle, its goal is to reduce disparities in health status among different groups in society (Macklin, 2004). In the context of the subject under discussions, the “poor” PLHIV, HIV-infected pregnant women, PLHIV from rural or disadvantaged areas, or PLHIV who qualified to be tagged as key population, etc. The difficulty, however, is that, allocating ARVs equally among these groups (not an exhaustive list) might not actually produce outcomes that are distributed equitably. For instances, prioritizing pregnant women could save more lives, giving ARVs to HIV-infected key population could reduce HIV infections in the general population, ultimately saving lives and curtailing the spread of HIV in the population.

To expand this a bit, it may be said that such resources should be rationed/distributed not necessary equally among the groups, but justly – giving each HIV-positive person his or her due – in terms of access to ARVs. Analogizing equitable or just distribution of resources with giving each person what he or she deserves does raise other important questions. For instance, how do we determine what people deserve? What criteria and what principles should we use to determine what is due to this or that person? Looking up to the fundamental principle of distributive justice and providing answers to these questions may be helpful in addressing rationing challenges.

The principle of equal worth is stated and interpreted by Brock and Wikler as follows: “Because every life is of equal worth, we must offer the same level of care to every person in need.” This thus “calls upon us to value each person’s life independently of his or her economic or other value to society or to others, and regardless of social position or

stigma.” (Brock & Wikler, 2009). Sometimes considered a variant of the principle of equity, the principle of equal worth in this context mandates nondiscrimination against PLHIV based on perceptions of their social worth.

3.3.3.3 Rationing ARVs based on urgent need principle

The principle of urgent need is stated by Brock (2003) and paraphrased by Macklin and Cowan (2012) as follows: “People’s medical needs give rise to moral claims to the health care resources necessary to meet those needs, ...equally urgent needs give rise to equal moral claims, and...more urgent needs give rise to stronger moral claims.”. In the context of allocating ARVs for treatment, this principle may be interpreted as follows: Prioritize those who might die soonest from non-receipt of ARVs or those who will be worst off if treatment is delayed. In other words, the sickest PLHIV urgently need ARVs. The moral dilemma, however, arises when this argument is juxtaposed to current rationing criteria where for example, not too sick pregnant PLHIV are prioritized for full or prophylactic treatment. Although PMTCT, without a doubt is an urgent public health need, it may seem less urgent because the women and the unborn child are healthy. Of note, the degree of urgency of the need even gets more complicated when other clinical parameters are brought into the equation. While the presence of opportunistic infections such as Tuberculosis may be considered in the allocation of ART, patients with acute opportunistic infection on medical terms are not considered immediately for ART. The acute opportunistic infections are treated before initiation of antiretroviral therapy to avoid immune reconstitution syndrome (IRIS).

3.3.3.4 Rationing ARVs based on prioritarian principle

The prioritarian principle in the words of Brock (2002) requires that resources (ARVs in this context) be provided to the least advantaged members or groups in society. But who are the least advantaged in the context of HIV and AIDS, ask Macklin and Cowan (2012). Is it the sickest? is it the poorest? Is it the youngest? Is it the oldest? Is it the female or the male? These are questions whose justification – when arrived at deliberatively, will enrich reasoning decisions ethically.

This discussion has not provided an algorithm for use when faced with rationing dilemmas; it does, however, provide recommendations and guidance laying bare the essential concepts for considering when decisions regarding rationing of ARVs have to be made.

3.3.4 Ethical tensions associated with treatment as prevention

The current National HIV Policy, and the NSP list treatment as prevention, and pre-exposure prophylaxis as HIV prevention strategies. Given that Ghana is not able to meet the ARV needs of most PLHIV who qualify to be on treatment, will it be ethical to divert ARVs from treatment to prevention? In other words, is Ghana ready for TasP and PrEP? To have a nuanced discussion of this ethical tension, I provide some background to TasP. As a relatively new development TasP, as an HIV prevention intervention aims to reduce HIV transmission by greatly increasing HIV testing and then initiating ART for PLHIV irrespective of the medical eligibility criteria discussed earlier. There is credible scholarship supporting its economic and public health benefits. The most recent of which is the findings of a clinical trial indicating that early initiation of ART reduced the rate of new infections among heterosexual couples by 96 percent (M. S. Cohen et al., 2011). Earlier, Granich et al (2009) had developed a mathematical epidemiological model, based on the South African HIV epidemic, to estimate the potential effectiveness of TasP. The results of this model were dramatic, predicting that, with the universal implementation of TasP, annual new HIV infections would be reduced to less than one case per 1,000

persons within 10 years. Ghana endorsed TasP strongly recommending it and PrEP as HIV preventative strategies in 2010 and 2012 through the NSP, and its national HIV policy respectively.

Should all patients with HIV start ART sooner after their diagnosis than has been the case thus far? If not everyone, what populations should be prioritized for this approach? What are the costs associated with earlier initiation of ART? Such questions have been tackled in recently published articles (J. Cohen, 2011; M. S. Cohen et al., 2011; Delva et al., 2012). As noted above, the public health benefits of TasP are not debatable. However, the ethical concerns of implementing TasP, have not been ignored by the literature (De Cock, Gilks, Lo, & Guerma, 2009; Garnett & Baggaley, 2009; Macklin & Cowan, 2012; J. A. Singh, 2013). I am not aware of any popular or scholarly discussion of the ethical tensions that Ghana's adoption of TasP and PrEP will generate. My thesis acknowledges the individual and public health benefits of the interventions but argues whether or not it is ethical to divert scarce ARVs from treatment to prevention in Ghana where ARV needs of most PLHIV who meet both the implicit adherence and the explicit medical eligibility criteria are unmet.

As noted earlier public health, economic, and ethical analyses of TasP dilemmas have been done. In 2002, Elliot Marseille and colleagues argued forcefully for the supremacy of prevention over treatment even when it means denying treatment to medically eligible PLHIV (Marseille, Hofmann, & Kahn, 2002). Brock and Wikler (2009) argued that 'the strongest moral imperative directs us to give priority to saving the most lives ...even if this means lowering the priority given to the goal of universal access to treatment, to provide maximum protection from HIV infection'.

Contrary to the above views, others including Macklin and Cowan (2012) have argued that it will be unethical to 'deliberately watch patients with treatable AIDS worsen and die, if medications for treatment are diverted to TasP and PrEP'. Singh (2013) on the contrary argues that 'denying ARV provision for prevention efforts is unethical and a

transgression of human rights. Singh further argues that diverting ARVs from treatment to prevention is supported by human rights provisions. He notes that the legally-binding ICESCR introduces the concept of a state's 'minimum core obligation' in respect to its citizens and that 'if a country is experiencing stubborn HIV prevalence, this could be indicative of she is not meeting her minimum core obligations in relation to HIV management (Singh 2013).

My thesis sides with Singh (2013), as long as such arguments are geared toward mobilizing resources for universal access to treatment and prevention. Otherwise, it is difficult to see how uninfected individuals, regardless of their vulnerability, can claim a greater need than infected persons who would surely die without treatment (in the case of PrEP), or diverting ARVs from the very sick/worse off PLHIV to healthy PLHIV (TasP). I argue that, on a comparative basis, ARVs should go first to PLHIV who meet the medical criteria for treatment.

As Macklin and Cowan (2012) note, whether the analysis proceeds in terms of human rights or ethical principles, the relevant question is: whose rights take precedence? They further note that, "the rights of infected people who cannot access treatment because available drugs are being used for prevention are surely violated to the same degree, if not more, than those who do not have access to ARVs for prevention" (Macklin and Cowan, 2012). Indeed, if individuals lack access to existing preventive interventions due to social, cultural or legal factors, as argued by Singh (2013), then those factors need to be addressed before introducing ARVs for prevention, declare Macklin and Cowan, 2012).

To conclude, the utilitarian principle discussed earlier supports using whatever mix of medicine for treatment and prevention that will produce the greatest balance of health benefits over harms. Even though acknowledgements have been made to the fact that the prioritarian principle is problematic for making allocations between prevention and treatment, a strong case can be made that sick people are worse off than healthy people,

and so should be prioritized in terms of access to ARVs. Thirdly, if the question is whether to use limited ARVs for treating PLHIV who are eligible for treatment; treating those who are infected but not yet eligible (TasP); or reducing healthy individuals' risk of acquiring the virus (PrEP), urgent need supports treatment over TasP. From the forgoing, my thesis supports Macklin and Cowan's argument that "it is unethical to deliberately watch patients with treatable HIV worsen and die, even with supportive care, if medications for treatment are diverted to preexposure prophylaxis".

CHAPTER FOUR

4.0 Conclusions and recommendations

This chapter presents the key findings of the thesis. These cover the rights of key populations to public health services; geographic prioritization of public health services; and access to prevention, treatment, and care services. Following these are the recommendations for consideration by the Ghana AIDS Commission and her partners as they strive to develop ethically appropriate HIV response guidelines for Ghana.

4.1 Conclusions

Responding to the HIV epidemic at either global or local levels can give rise to a multitude of ethical tensions. While components of the guidelines reviewed have many strengths and offer hope for public health, notable weaknesses were observed. Generally, the guidelines analyzed reflect an underdeveloped sensitivity to potential or real ethical concerns of the HIV epidemic in Ghana.

4.1.1 Rights of key populations to public health services

The guiding documents reviewed do not conceal their support for key populations. Both the NSP and the national policy advocate that public health institutions provide public health services to key populations. Measures to address the HIV epidemic among key populations are outlined, but specific actions to ensure that these services are key population-friendly or ethically sound are not apparent.

The NSP and the national HIV policy acknowledge the daily threats of incarceration and stigmatizing behavior towards key populations in Ghana. Yet they offer no palpable efforts to decriminalize key populations or promote appropriate interpretation of Act 29, whose flawed interpretation criminalizes both MSM and sex workers. The inactions of the NSP and national HIV policy directly and indirectly prevent or inhibit key populations' access to services. This is a curtailment of their positive rights.

4.1.2 Prioritizations of HIV preventions services and interventions

The NSP presents some prioritizations with respect to provision of HIV services and interventions. This review notes that, the prioritization, which is focused on three dimensions--target populations, regions and thematic areas--are sound in public health standings, but lack sound ethical justifications. The potential ethical tensions of such prioritization (motivation for prioritization, and pre-prioritization procedural requirements) are addressed. Nevertheless, nowhere in the document are efforts made to address potential unintended consequences of the initiative; the possibility of stigmatizing prioritized communities is real. The current prioritization scheme is thus guilty of the sins of over-inclusion or blanket prioritization of entire regions.

4.1.3 Access to prevention, treatment, care and support services

Whilst there is universal acknowledgement (in all the guiding documents), of the chronic shortage of ARVs in Ghana, there is no provision whatsoever in them to sustainably address such shortages. There are also no clear guidelines concerning how to ethically allocate this scarce commodity.

Second, two of the national guiding documents, the national HIV policy, and the NSP, instruct the use of treatment as a prevention, and pre-exposure prophylaxis as HIV prevention interventions. Cognizant of the Ghana's peculiar circumstances, I follow earlier commentators in arguing that it is unethical to divert ARVs from treatment to prevention.

4.2 Recommendations

Raised and discussed are potential and real ethical tensions in key guiding documents of Ghana's HIV response. In this subsection of the thesis, I provide some suggestions for consideration by the powers that be toward addressing the deficiencies and tensions. If there is to be any true progress in any response to the HIV epidemic, identification, and acknowledgment of the actions' or proposed actions' weakness should be lauded. To this end, and in line with the findings of this thesis, I recommend the following:

First, as a signatory to various human rights documents, particularly the UN Human Rights Council Resolution of 2009 that called for States to “enact, strengthen or enforce, as appropriate, legislation, regulations and other measures toward the full enjoyment of all human rights and fundamental freedoms of vulnerable groups (which includes key populations)”, the key players of Ghana’s response to HIV should press forward for decriminalization of key populations in Ghana. As an alternate step, a call for immediate unfettered government’s support for the delivery of public health services to key populations, irrespective of their status in the current legal codes, is reasonable. Scaling up the establishment of Drop-In-Centers will be a key strategy for addressing the curtailment of key populations’ positive rights.

Second, given the ethical tensions in the prioritization schemes presented in the NSP, I suggest to the powers that be, that, whenever preventative interventions or resources for HIV response have to be prioritized, it be done with regard to the ethical standards and frameworks examined in this thesis. The recommendations of Macklin and Cowan (2012), the public health ethics frameworks of Gostin and Mann (1994), Kass (2001), and the various health and human rights arguments presented in this thesis all provide helpful lenses for analyzing and addressing ethical issues related to public health policies and practices. While prioritizations in public health service delivery may not be avoided, acknowledging the potential unintended consequences of the process, and deleting contingency measures to address such would be prudent. A development of prioritization criteria, which could include (in no particular order of priority equity considerations, burden of disease, cost-effectiveness, public goods, and externalities) is necessary but not sufficient. Seeking public input for integrating social values into the prioritization schemes, and establishing rigorous system for collecting data on the benefits, and harms of a prioritization initiative should not be optional.

Third, given that Ghana is currently not able to meet the ARV needs of most of her PLHIV who qualify to be on treatment, I suggest that the GAC and relevant stakeholders reconsider current policies that permit diverting scarce ARVs from treatment to

prevention. Further, the universal acknowledgement of the chronic shortage of ARVs in Ghana by the guiding documents should be matched with proposals to sustainably address such shortages. The guiding documents mention minimizing wastage, leakage, and abuse as one strategy. Beyond this, Ghana will need to incorporate relevant innovations from countries such as Brazil toward supporting local pharmaceutical companies to manufacture of ARVs for use by PLHIV in Ghana.

While instituting sustainable structures to address the chronic shortages are encouraged, guidance on how to ethically allocate the insufficient ARVs is urgently needed. This thesis reviewed and discussed various allocation principles. These include utilitarian and equity principles, urgent need, prioritarian, rule of rescue, and the equal worth principles. Given Ghana's circumstances, a hybrid of the utilitarian and the urgent need principles may provide the best guidance on allocation of her scarce ARVs. Designated in this thesis as the "*utili-urgent principle*", it requires service providers to be capacitated well enough to be able to balance the beneficial over harmful consequences of their allocation actions. The principle also requires providers to recognize that PLHIV's medical needs give rise to moral claims to ARVs and those (PLHIV) with stronger moral claims are those who will be worst off clinically if access is denied or delayed.

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