

**TITLE: IS MANDATORY HIV TESTING IN PREGNANT WOMEN IN BOTSWANA
MORALLY PERMISSIBLE?**

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DECLARATION

I, Kelebalwe Lekau-Tacheba declare that this Research Report is my own, unaided work. It is being submitted for the Degree of Masters of Science in Medicine in Bioethics and Health Law at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at any other University.



(Signature of candidate)

17th day of July 2018 in Johannesburg

To God Almighty as an appreciation for the gift of life and to my
Family that has supported me at all times

ABSTRACT

This research assesses the moral permissibility of mandating human immunodeficiency virus testing in pregnant women in Botswana. The aim of the research is to defend the claim that it is morally permissible to mandate HIV testing in pregnant women in Botswana where antiretrovirals (ARVs) are freely available in government health facilities and reasonably accessed. In Botswana, 95% of people are within five kilometre reach of a health facility where they access ARVs (Essex et al., 2016). Currently Botswana uses a routine opt-out HIV testing policy which gives pregnant women the right to refuse an HIV test. The access to ARVs in the prevention of mother-to-child transmission of HIV begins with testing. With such a high availability of ARVs and access to treatment and after care, it seems unreasonable for a pregnant woman to opt out of HIV testing. In this report I apply principlism and consequentialist moral theory to argue for a shift from opt-out to mandatory HIV testing of pregnant women in Botswana.

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ABBREVIATIONS AND ACRONYMS

AIDS- Acquired Immune Deficiency Syndrome

ARVs- Antiretrovirals

AZT- Zidovudine

BAIS- Botswana AIDS Impact Survey

CDC- United States Centers for Disease Control and Prevention

CSO- Central Statistics Office

DNA- Deoxyribonucleic Acid

HIV- Human Immunodeficiency Virus

HTC -HIV Testing and Counselling

MTCT- Mother-to-Child-Transmission

NACA- National Aids Coordinating Agency

PCR-Polymerase Chain Reaction

PITC- Provider-Initiated Testing and Counselling

PMTCT- Prevention of Mother-To-Child Transmission

UNAIDS- The Joint United Nations Programme on HIV and AIDS

UNICEF- United Nations Children's Fund

VCT- Voluntary Counselling and Testing

WHO- World Health Organization

XDR TB- Extreme Drug Resistant Tuberculosis

CHAPTER 1: INTRODUCTION

1.1 Background Literature Analysis

According to Levinsky, the main way to prevent MTCT of HIV is to test for the virus in pregnancy, followed by early initiation of ARVs (2003). Studies have shown that there is a less than a 1% chance of transmission of HIV to an unborn baby if ARVs are initiated early during pregnancy (CDC, 2016). According to the WHO, with the use of ARVs, the HIV transmission rate from the mother to the baby, which can happen during pregnancy, labour, delivery and breastfeeding, is reduced to less than 5%, while in the absence of use of the ARVs the transmission rate is 35% (2010).

Since the introduction of PMTCT in Botswana in 1999, the MTCT rate of HIV has declined from 40% (Botswana National Guidelines Prevention of Mother-to-Child Transmission of HIV 2011, pp17-18). In a study conducted in Botswana in the period 2007-2008, at six weeks testing, Creek found an MTCT rate reduction of 4% for all infants whose mothers had enrolled for PMTCT programme (Sullivan et al., 2011). The MTCT rate has continued to decrease with PMTCT such that it was 2.5% in 2013 and 1.8% in 2014 (NACA 2015, p.21). In another study conducted in South Africa between 2012 and 2014, 2,644 babies whose mothers were on the PMTCT programme were followed during this period from birth until they were 18 months of age and only 1.6% were found to be infected with HIV (Jackson et al., 2016). These studies support the evidence from the WHO and CDC that the use of ARVs significantly lowers the chances of transmission of HIV from the mother to the baby.

Despite the availability of ARVs, MTCT of the virus still occurs in pregnant women who are unaware of their HIV status and are not taking ARVs. "Yet one of the biggest barriers to the near elimination of mother-to-child transmission of HIV is that screening and prophylactic treatment is not always implemented. A key reason for this lack of

implementation of such lifesaving treatment is that HIV testing of pregnant women is not universal” (Beaudette, 2011). In this statement Beaudette supports the idea that as long as HIV testing is not implemented universally on all pregnant women, maximal coverage of ARV will not be achieved, thus posing a big challenge on the near elimination of MTCT of HIV. Since the success of preventing MTCT begins with testing for the virus, it is crucial for all pregnant women to know their HIV status, and for those testing HIV-positive to take precautions by taking ARVs daily to minimise the chances of their babies contracting HIV.

Currently in Botswana, the routine opt-out testing method is used for the general population including pregnant women. The HIV testing guidelines indicate that in addition to all services to be offered to all people presenting in medical facilities, an HIV test will be done unless a patient opts out (Botswana National HIV Testing Services Guidelines 2016, p.25). The implication of these guidelines in pregnancy is that an HIV test is included in the antenatal tests conducted, except when a patient chooses not to have it. This means that the pregnant women can refuse both testing and treatment for HIV. There is therefore an increased risk of HIV transmission to the unborn baby from an HIV-positive pregnant woman.

Over the years, the access and availability of ARVs has been increasing in Botswana. In 2002 Botswana pioneered free universal access to ARVs in sub-Saharan Africa through the country’s national ARV programme, known as Masa (Carter, 2013). By 2014, the PMTCT programme was available in all the 634 health facilities that provide maternal and child health services (NACA 2015, p.20). However, despite the availability of ARVs and the success of the PMTCT programme in Botswana as compared to some other countries, it is a concern that the number of HIV-positive women who were on ARVs to reduce MTCT in 2014 significantly decreased to 90.8% from 95.9% in 2013 (NACA 2015, p.6). With such a high availability of ARVs and access to treatment and after care, it seems unreasonable for a pregnant woman to opt out of HIV testing. The aftercare

includes lifelong provision of ARVs to the women, ARVs to the baby, close monitoring with regular tests, provision of formula milk to the babies of known HIV-positive mothers who are not breastfeeding and continued psychosocial support.

Mandatory HIV testing in pregnancy is the way in which all pregnant women can test for HIV as a first step toward the near elimination of MTCT. “Considering the growing epidemic especially in high prevalent countries, mandatory HIV testing during the prenatal period can be considered to tackle the growing epidemic” (Chattu, 2014). According to the Merriam-Webster dictionary, mandatory means “Required by a law or rule or being obligatory” (2017). In the context of HIV testing, mandatory HIV testing in pregnancy would mean that all pregnant women would be required to undergo HIV testing. The subject of mandatory HIV testing in pregnancy is still controversial since it gives rise to a conflict between preventing new HIV infections in unborn babies and violating the rights of the pregnant woman.

Some authors have argued in support of mandatory HIV testing for pregnant women on the basis of the principle of beneficence for both the pregnant mother and the unborn baby. This principle requires agents to perform actions in the best interests of others (positive beneficence) and also that agents should weigh and strike a balance of the benefits, risks and costs involved in getting the best outcome (utility) (Beauchamp and Childress 2013, p.202). “Still, [mandatory HIV testing in pregnancy] fulfils the beneficence principle for the mother by enabling her to get help and initiate antiretroviral therapy, and for the foetus by decreasing the risk of transmission” (Levinsky, 2003). This is also supported by Beaudette who stated that “By making HIV testing mandatory during pregnancy, a woman is able to learn about her status earlier than she would if she never became pregnant and this in turn allows her to begin antiretroviral therapy sooner, which benefits not only her yet-to-be-born child but also herself” (2011).

Chattu believes that mandatory HIV testing followed by treatment can drastically lower the chances of perinatal transmission of HIV and that mandatory testing is morally acceptable where the HIV prevalence rate is still of concern (2014). Schuklenk and Kleinsmidt similarly believe that in the Southern African Region where the HIV prevalence rate is high, mandatory HIV testing should be done in pregnant women (2007). This is supported by Clark who stated that if human life preservation is a priority in Botswana, then the time has come to allow mandatory HIV testing of all pregnant women (2006). Some countries like India, Saudi Arabia and the United Arab Emirates have supported mandatory HIV testing in various population groups including pregnant women (Chattu, 2014). It is also my view that where availability and accessibility to treatment and care is guaranteed, mandatory HIV testing in pregnancy is ethically acceptable since women will be tested and offered treatment for the benefit of their health and the baby's, rather than being made to test where treatment is not available.

On the other hand, since the debate of mandatory HIV testing in pregnancy started, there have been concerns against it that it gives rise to ethico-legal issues such as violation of a patient's right to autonomy and that it encourages stigmatisation of pregnant women. "The most serious objection to mandatory testing schemes is the denial of dignity" (Armstrong, 2008). Armstrong further stated that when a pregnant woman is denied the right to autonomy to choose whether to have HIV test or not, she is likely to lose control of making future decisions about her life including revealing her status, seeking care, treatment and support (2008).

In the debate of mandatory HIV testing in pregnancy, there is still controversy surrounding rights of a foetus or the unborn baby. "A foetus is an animal or human being in its later stages of development before it is born" (Collins English Dictionary). The issue of debate is why should the rights of a pregnant woman who is already a living person be violated to protect the unborn baby who is not yet a living person. The debate is triggered by the moral status of the unborn baby. Some authors believe that the foetus

has varying moral status according to developmental stages and will only have a moral status or interests when it is conscious and aware or sentient (Steinbock in Kuhse and Singer 2009, p.149). While arguing against abortion, Marquis stated that although the unborn baby is not yet a living person is a potential person who has a future value that needs to be protected (2001). I also argue that although the foetus may not have rights, it is vulnerable and needs to be protected while in utero such that after being born it can gain all the rights of a living person in an unharmed state.

Li et al. have ascertained that although there is still controversy over mandatory HIV testing, many countries have implemented mandatory HIV testing for certain groups in the society (2007). Botswana is among the countries in which the subject of mandatory HIV testing is not new, since according to the Botswana Public Health Act of 2013 all blood and tissue donors and rape and defilement offenders have to be tested for HIV (s106; s107; s108). The Act also states that “the Director, or any person authorised by him or her, may, where necessary and reasonable, require a person or a category of persons to undergo an HIV test” (s104 (3) (b)). The HIV test will be performed against the will of the person since a court order would be sought in the case of resistance.

In this report I will consider the moral permissibility of mandatory HIV testing in pregnant women in Botswana where ARVs are freely available and accessible in 634 sites (NACA 2015, p.20).

1.2 Rationale for the study

This study is envisaged at contributing to Botswana’s efforts to eliminate MTCT by influencing HIV testing policy discussions. Botswana has come a long way in the fight against HIV and in so doing has introduced various ways of trying to eliminate it. The latest Botswana AIDS Impact Survey (BAIS) IV conducted between January and April 2013 showed an HIV prevalence rate of 18.5% among people aged 18 months and

older and an HIV incidence rate of 1.35% (Statistics Botswana, 2014). The prevalence shows the number of affected people by the disease at a particular time or over a period of time whereas incidence shows the number of new cases in a given time frame (Encyclopaedia Britannica). BAIS IV shows an increase on the prevalence rate from BAIS III which indicated a prevalence rate of 17.6% (CSO and NACA, 2009)

Botswana responded to the fight against HIV by increasing access to HTC services, increased access to ARVs for the general population and to the PMTCT programme among others. With all that the government of Botswana has done in the fight against HIV especially in PMTCT, I think it is unreasonable to subject pregnant women to the opt-out HIV testing method and therefore find it necessary for every pregnant woman in Botswana to undergo HIV test, which is the first step in reducing the risk of the spread of HIV from the mother to the unborn baby followed by treatment.

In my opinion, the inherent worth of any baby who could be infected with HIV warrants implementation of policies that would safeguard lives and reduce the chance of transmission of the virus from the mother to the baby. The consequences of opting out of testing in the case of a HIV-positive mother will occur later in her life because it is likely that her health will deteriorate, and she also may be faced with taking care of a sick child, who could have been prevented from being infected with the virus through the mother accessing the PMTCT programme. I understand that not every child who is born by an HIV-positive mother will be infected with HIV if the mother was not taking ARVs. However, failure to take precautionary measures, especially where proven methods or programmes like PMTCT exist, poses a threat to the national fight against HIV in Botswana.

1.3 Thesis Statement

According to the HIV routine opt-out testing guidelines used in Botswana, pregnant women in Botswana are entitled to refuse HIV testing. I will argue that it is morally impermissible for pregnant women in Botswana to opt out of HIV testing. The main thrust of my argument will be that the harm for a baby to be born HIV-positive outweighs the obligation to respect the autonomy of the pregnant woman in refusing an HIV test, which could provide her with access to some interventions that prevent transmission of the virus to the baby. Similarly, respect for autonomy of the pregnant woman is outweighed by the harms to society when children are born with HIV that could have been prevented based on Botswana offering free ARVs to all HIV-positive citizens. I have taken this stance well aware of the controversy of mandatory HIV testing in pregnancy on the basis of why women's rights should be overridden for the sake of a not yet born child and it will be further discussed in chapter 3.

1.4 Research Aim and Objectives

The aim of this research is to critically defend the claim that mandatory HIV testing of pregnant women in Botswana is now morally permissible.

1.4.1 Research Objectives

- To give an account of the HIV testing policy and PMTCT of HIV programme in Botswana.
- To describe the benefits of the PMTCT of HIV programme.
- To discuss the ethical justification of mandatory HIV testing in pregnancy using principlism and the consequentialist moral framework.
- To describe the potential benefits and harms to pregnant mothers, unborn babies and society of mandatory HIV testing of pregnant women in Botswana.

- To argue for mandatory HIV testing of pregnant women in Botswana.

1.5 Research Design

The study design is normative. It is based on desktop- and library-based research. No new data was collected or analysed. The typical research methods and standards applicable to philosophical research are employed. In this research I discuss findings from literature which is ethically analysed. This primarily involves the interpretation and critical analysis of the most important texts, postings and relevant government legislation to answer the research questions. My analysis of the relevant texts includes the definition and clarification of concepts, the identification and criticisms of assumptions, the analysis and evaluation of theoretical frameworks, and the articulation of the most reasonable interpretation of significant concepts found in the sources. Sources of literature include, but are not limited to: research articles, books, Google Scholar, Pubmed, government legislation and other academic search engines for gathering my research data.

I have researched relevant scientific and ethical information using search terms such as mandatory HIV testing, opt-out HIV testing, PMTCT, ethical principles in HIV testing and consequentialism. I have not confined myself only to the latest research data, since mandatory testing is still a controversial issue despite being in discussion for decades. I have confined myself to research data on the subject done from 2001 until to date.

1.6 Research Methods

1.6.1 Argumentative Strategy

In defence of the claim that it is now morally permissible to mandate HIV testing in pregnant women in Botswana, I will discuss the various HIV testing approaches and the PMTCT of HIV programme in Botswana, the ethical justification of mandatory HIV

testing in pregnancy, benefits and harms of mandatory HIV testing in pregnancy and conclude with policy recommendations for mandatory HIV testing in pregnant women in Botswana.

The HTC programme in Botswana started in 1989 as part of the National AIDS Control programme (Botswana National Guidelines HIV Testing and Counselling 2009, p.5). The two commonly used HIV testing approaches are routine opt-out testing and the voluntary counselling and testing (VCT) (Botswana National HIV Testing Services Guidelines 2016, p.24). The routine opt-out testing which is referred to as provider-initiated testing and counselling, is where the HIV test is initiated by the health care provider regardless of the clinical presentation of the patient unless the patient chooses not to have it done (ibid). The VCT approach is where the client chooses to request the HIV test that is accompanied with pre- and post-test counselling (Commonwealth Regional Health Community Secretariat, 2002).

The other approach of mandatory testing where people are made to undergo HIV testing without their choices, applies only in certain circumstances like rape and blood donations (Botswana National HIV Testing Services Guidelines 2016, p.17). Mandatory HIV testing can also occur as an order from the Director of Health Services where felt it is necessary (Botswana Public Health Act of 2013, s104 (3) (a) (b)). HIV testing is the critical stage in the control of the disease because it determines eligibility for treatment. It is therefore important in this research report to explore the current HIV testing approaches in pregnancy in comparison to mandatory testing that I am arguing for.

Botswana, like most countries where HIV is a burden, has long adopted a PMTCT programme, starting in 1999, when there was an MTCT rate of 40% (Botswana National Guidelines Prevention of Mother-to-Child Transmission of HIV 2011, pp.17-18). According to the 2011 UNICEF Botswana Annual Report, the MTCT rate was

decreasing throughout the years since the introduction of PMTCT, and was 4% in 2008/9 (pp.15-16). In 2013, the MTCT rate of HIV was 2.49% and it decreased to 1.8% in 2014 (NACA 2015, p.21). The universal implementation of the PMTCT programme can help Botswana eliminate new HIV infections in children and have the health of their mothers sustained by 2020 as per the UNAIDS 2016-2021 strategy (UNAIDS, 2016). In chapter 2 of this report I have given an account of the PMTCT programme in Botswana and state its benefits as per the research objectives.

Botswana is currently doing well in the provision of ARVs since they are widely available throughout the country. Since 2014, ARVs have been available in all the 634 health facilities that provide maternal child health services (NACA 2015, p.20). In addition, 95% of the population of Botswana live within five kilometres of a health facility to access treatment (Essex et al., 2016). Accessibility and availability of ARVs in Botswana is another important factor that will be used to argue that it is now morally permissible for mandatory HIV testing to be done in pregnant women in Botswana. Despite the efforts of increasing availability of and access to ARVs, mandatory testing of all pregnant women is not in place, and this affects the maximal results that could be achieved from the enrolment in PMTCT by all those pregnant women found to be HIV-positive.

The benefits of PMTCT are not only to the baby, but also to the mother since enrolment in the programme will give her access to ARVs which will improve her health and enable her to live a healthy life. Initially when PMTCT started, it aimed at protecting the baby by giving a short course prophylactic dose of ARVs depending on the immune status of the mother; but since option B+ has been in place, the health of the mother is also considered. Option B+ is where all HIV-positive pregnant women are given ARVs irrespective of their CD4 count (NACA 2015, p.28). A CD4 count is defined as “a laboratory test that measures the number of CD4 T lymphocytes (CD4 cells) in a sample of blood” (US Department of Health and Human Services AIDS info). The CD4 count

shows the functionality of the immune system and indicates how it has been affected by HIV infection (ibid).

Mandatory HIV testing, which is still a subject of controversy, dictates an obligatory responsibility on an individual to undergo an HIV test. In Botswana like some other countries, mandatory HIV testing is totally prohibited except in certain special circumstances. In this report, I have argued for the mandatory HIV testing approach in pregnant women in the context of Botswana. While arguing for mandatory HIV testing in pregnant women, I have also discussed how it is ethically justified and the benefits and harms that can result from it. These harms come as a result of not recognizing the woman's right to privacy and confidentiality, lack of respect for her autonomy, and the potential issues of HIV-related stigma and discrimination.

The arguments for mandatory HIV testing in pregnancy will be on the basis of the ethical principles of respect for autonomy (respecting individual decisions), beneficence (actions carried out in the best interests so as to avoid harm), non-maleficence (no harm in our actions) and justice (fair distribution of benefits and risks) (Beauchamp, 2007). The main thrust of my argument is that the potential harm for a baby to be born HIV-positive outweighs the obligation to respect the autonomy of the pregnant woman in refusing an HIV test, which could provide her with access to some interventions that help prevent transmission of the virus to the baby if she were to test HIV-positive. Similarly, respect for the autonomy of the pregnant woman is outweighed by the harms to society when children are born with HIV.

Consequentialist moral theory will also be used to argue and defend the morality of mandatory HIV testing in pregnancy. The moral theory of consequentialism is defined as "... a label affixed to theories holding that actions are right or wrong according to the balance of their good and bad consequences" (Beauchamp and Childress 2013, p.354).

This chapter has sought to give an introduction to the research topic. Chapter 2 will further give an account of the HIV testing services and the PMTCT programme in the context of Botswana. Chapter 3 will consider the ethical justification of mandatory HIV testing of pregnant women. Finally, in Chapter 4 I will conclude my argument for mandatory HIV testing of pregnant women in Botswana as a national health policy.

1.7 Research Ethics

The research does not involve human participants, and an ethics waiver from the University of the Witwatersrand Human Research Ethics Committee (W-CJ-161118-1) has been granted (see Appendix 6.2 for a copy of the ethics waiver certificate).

CHAPTER 2: HIV TESTING SERVICES AND PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV PROGRAMME IN BOTSWANA

2.1 Introduction

In this chapter I will discuss the HIV testing services and the PMTCT HIV programme in Botswana. The provision of HIV testing services in Botswana is mainly guided by the recently revised guidelines which were implemented in 2017. The revision of the guidelines was to align them to the WHO 2015 Guidelines on HIV Testing Services, to find ways to achieve UNAIDS 90-90-90 targets and ways of incorporating the recently launched treat-all strategy in testing services (Botswana National HIV Testing Services Guidelines 2016, p.vii). The commonly used HIV testing approaches in Botswana are voluntary testing (client-initiated) and routine opt-out testing (provider-initiated) (ibid). The mandatory HIV testing approach is seldom used and occurs only in certain circumstances which will be further mentioned in the chapter.

Since the first HIV case was identified in Botswana in 1985, HIV became a burden as most lives of people infected with the virus were being lost (Botswana National HIV Testing and Counselling Guidelines 2009, p.5). The Government of Botswana then developed short-term, medium- and long-term strategies to fight against HIV. These strategies included development of an HTC Programme, PMTCT and free provision of ARVs. The HTC programme was developed in 1989 (Botswana National Guidelines HIV Testing and Counselling 2009, p.5). In 1999, Botswana became the first country in Africa to implement PMTCT programme with short-course AZT (Kellerman et al., 2013). Botswana also became the first country in Africa to introduce universal free provision of ARVs to its citizens in the public sector (Rollnick, 2002).

In line with the objectives of this research, an account of HIV testing services and the PMTCT of HIV programme in Botswana will be given to show differences among testing approaches and use the differences as the basis to argue for mandatory testing in chapter 5. The account of the various testing approaches will include when these

approaches are used. The PMTCT of HIV programme account will include its history, how it is implemented, its indications and benefits.

2.2 HIV testing Services in Botswana

Currently Botswana has two commonly used HIV testing approaches, which are the routine opt-out HIV testing and the voluntary counselling and testing (Botswana National HIV Testing Services Guidelines 2016, p.24). The other not so commonly used approach of mandatory testing is used only in certain circumstances, such as when the Director of Health may order such a test where it is felt it is necessary or reasonable, or for the purpose of enabling access to health related services and programmes (Botswana Public Health Act of 2013, s104(3)(a)(b)). The guidelines further state that with the routine opt-out HIV testing approach, an HIV test will be offered in addition to all services to be offered to all presenting in medical facilities, unless a patient opts out (ibid). Unlike routine opt-out testing, voluntary testing and counselling is client-initiated since the patient willingly requests it.

The HIV testing and counselling programme as part of National AIDS Control Programme in Botswana dates as far back as 1989 (Botswana National Guidelines HIV Testing and Counselling 2009, p.5). However prior to this, VCT services were ongoing through organisations such as Botswana Red Cross and confined to the city of Gaborone due to the lack of resources to expand the programme (Botswana National Guidelines HIV Testing and Counselling 2009, p.5). The Government of Botswana, with the help of the Government of the United States, introduced a well-structured VCT programme in 2000, which was later complemented by routine opt-out testing in 2004 as a way of increasing the number of people who get tested for HIV (ibid). Botswana became the first country in Africa to implement routine opt-out HIV testing approach for the general population (Maman and King, 2008). The HTC services in Botswana can be accessed through public and private health facilities, community out-reach services, health campaigns, and workplace wellness programmes.

2.2.1 Voluntary counselling and testing for HIV

The VCT approach is accessed by people who decide on their own to be tested for HIV for various reasons such as if they consider themselves to be at risk, prior to marriage and conception, or because they just want to know their health status with regard to HIV (Botswana National HIV Testing Services Guidelines 2016, p.24). People who choose the VCT services are also given pre-test and post-test counselling followed by appropriate action depending on the results (ibid). The follow up action include referrals for further management or access to other available services. The advantage of the patient to access VCT services is that the patient prepares himself or herself psychologically prior to the HIV test.

2.2.2 Routine opt-out testing for HIV

The routine opt-out HIV testing approach is where an HIV test is considered as part of the standard clinical tests carried out in a facility unless the patient opts out. The approach is that the HIV test will be offered by the health care providers to all patients presenting at a health facility and carried out unless the patient declines it (Botswana National HIV Testing Services Guidelines 2016, p.25). The test is not dependent on whether the patient is at risk of acquiring HIV or is symptomatic of an underlying HIV infection. The HIV testing service in this approach is based on an informed consent principle such that the client is informed of the HIV testing services and process and their right to decline the test (Botswana National HIV Testing Services Guidelines 2016, p.14). The guidelines state that oral consent is sufficient and that for those who decline the test, it should be noted on their medical record so that the HIV test can be offered in subsequent visits (ibid). However in the event that the client declines the HIV test, s/he is not denied access to other services (ibid).

According to the Botswana National HIV Testing Services Guidelines, although the routine opt-out HIV testing approach should be applied to all patients visiting health facilities, there are certain situations in which if a healthcare worker fails to offer HIV testing services, it would be regarded as professional misconduct (2016, p.25). These

situations include “sexual and reproductive health services (maternal and child health, PMTCT, and sexually transmitted infections clinics) adult and paediatric inpatient facilities, tuberculosis clinics, post-rape patients, occupational exposure clients, general outpatient services and family planning services” (Botswana National HIV Testing Services Guidelines 2016, p.25).

Similarly to VCT, this testing approach involves pre-test and post-test counselling, followed by appropriate management depending on the outcome of the HIV test. The HTC services are also provided confidentially, so that all information that can identify the client, test records, and results are kept confidential even after the client has died (Botswana National HIV Testing Services Guidelines 2016, p.17). The routine opt-out HIV testing approach applies to all areas where the services can be accessed, such as at public, private, and non-governmental organisations.

2.2.3 Mandatory testing of HIV

The Botswana National HIV Testing Services Guidelines currently permit voluntary counselling and testing and routine opt-out testing approaches (2016, p.24). However, there is a mandatory testing approach where clients do not give consent that occurs in limited circumstances. The guidelines indicate situations where mandatory testing can occur, such as for blood donations to ensure safety of the blood prior to transfusion (ibid). The Botswana Public Health Act of 2013 also further states that “A medical practitioner responsible for the treatment of a person may conduct an HIV test without the consent of that person where that person is unconscious and unable to give consent; and the medical practitioner believes that such a test is clinically necessary or desirable in the interests of that person” (s105 (2) (a) (b)).

Mandatory HIV testing also occurs in tissue donors and those who have committed rape or defilement offences (Botswana Public Health Act of 2013, s106; s108). The act also gives power to the Director of Health to require an HIV test and states that “the Director,

or any person authorised by him or her, may, where necessary and reasonable, require a person or a category of persons to undergo an HIV test” (s104(3)(b)).

2.3 An account of the PMTCT programme in Botswana

The PMTCT programme was introduced in Botswana in 1999 (Botswana National Guidelines Prevention of Mother-to-Child Transmission of HIV 2011, pp.17-18.). The PMTCT programme aims to prevent MTCT of HIV to the unborn baby through the use of ARVs. According to the Handbook of the Botswana Integrated HIV Clinical Care Guidelines, “there is no stage of pregnancy that is too early or too late to begin [ARVs]” (2016, p.9). However, great results are obtained when HIV is detected earlier, and therefore women are advised to know their HIV status before they fall pregnant or in their early stages of pregnancy.

The PMTCT programme is indicated for all HIV-positive pregnant women not already on ARVs. According to the BAIS IV, which was conducted between January and April 2013, from an estimated number of 154,070 pregnant women who attended an antenatal care clinic, 92.8% were tested for HIV (Statistics Botswana, 2014). There is a possible risk that the approximately 7% who have not been tested could be HIV-positive, thus exposing the unborn baby to the risk of contracting the virus. This figure is high, particularly in light of the government’s zero percent new HIV infections initiative.

The results of the BAIS IV further reveal that of the 92.8% (143,037) of pregnant women who were tested, a fifth (29,346) tested positive for HIV. Of those who tested HIV positive, 93.5% (27,441) enrolled into the PMTCT programme (Statistics Botswana, 2014). These results show there are pregnant women who do not test for HIV and expose their unborn babies to the risk of infection and women who have tested, but then do not take ARVs. The results of the BAIS IV also suggest that the national PMTCT programme significantly reduced the risk of HIV transmission to the unborn baby, since it

showed that of the 12,183 babies whose mothers enrolled for PMTCT and tested for HIV at 6 to 8 weeks, less than one percent (0.5%) tested HIV-positive, while 94.1% were HIV-negative (Statistics Botswana, 2014). This emphasizes the importance of the PMTCT programme following a detected HIV-positive status of a pregnant woman.

In the PMTCT programme, the ARVs are provided for free as is the case with any other HIV-positive citizen who is not pregnant. The Handbook of the Botswana Integrated HIV Clinical Care Guidelines indicate that there are various categories in which ARVs can be given in the PMTCT programme, which are determined by whether the pregnant women have been taking ARVs or not and the stage of pregnancy when they are diagnosed (2016).

The treatment of newly diagnosed HIV-positive pregnant women is similar to other newly diagnosed HIV-positive adults. Those pregnant women who are already on ARVs and are stable, that is with a viral load less than 400 copies per micro litre, continue with the ARV medication they have been taking (Handbook of the Botswana Integrated HIV Clinical Care Guidelines 2016, pp.18-19). For HIV-positive pregnant women who are not stable, that is clinically ill and with an absence of viral suppression, referrals are made to an HIV specialist to determine the causes of the lack of viral suppression and how to manage the patient to ensure suppression prior to delivery (ibid). The time of diagnosis depends on whether it was before or after 28 weeks of pregnancy or at labour. Those HIV-positive pregnant women presenting prior to 28 weeks are to be investigated through baseline laboratory tests and initiated on ARVs within 1-2 weeks after the results (ibid). For those presenting after 28 weeks, ARVs are initiated immediately without awaiting laboratory results, since they are already considered to have presented late in pregnancy (ibid). The regimen that the patient has been given can only then be altered after laboratory results. When pregnant women are identified at labour as HIV-positive, they are immediately started on ARVs and given supplemental ARVs of AZT every 3 hours, but not exceeding 1500 milligrams (ibid).

The Handbook of the Botswana Integrated HIV Clinical Care Guidelines also includes infant intervention of the PMTCT programme and indicate that when HIV-exposed babies are administered ARVs immediately after delivery within 72 hours it has led to the increased success of the PMTCT programme (2016, p.20). The mother's consent is sought but where there is resistance, then the child's best interest principle is used. The guidelines state that HIV-exposed infants who present after 72 hours should not be given ARVs, rather they should be referred to an HIV specialist (ibid). Long term management includes carrying out a DNA Polymerase Chain Reaction (PCR) HIV test of all HIV-exposed infants at 6 weeks (ibid). "HIV DNA PCR is a sensitive technique used to detect specific HIV viral DNA in peripheral blood mononuclear cells" (AIDSinfo, 2017).

Those infants that have tested negative and were not breastfed have a repeat HIV rapid test at 18 months, and those that are breastfed will also have an HIV test after cessation of breastfeeding (Handbook of the Botswana Integrated HIV Clinical Care Guidelines, 2016). The PMTCT programme includes infant feeding and for HIV-positive viral suppressed mothers, exclusive breastfeeding is recommended (ibid). Pregnant women presenting after 28 weeks are strictly advised not to breastfeed. Formula milk is made available for the babies of HIV-positive mothers who cannot breastfeed.

2.3.1 Benefits of PMTCT

PMTCT of HIV Programme is a very important since it reduces the chances of transmission of the virus from the mother to the unborn baby. The chances of transmission of the virus when ARVs are used are as low as 1% (U.S. Centers for Disease Control and Prevention, 2016). "The following are direct benefits of PMTCT services: reduced numbers of new HIV infections among children, improved child survival, providing the opportunity for early and comprehensive care for the mother, partner and family members in need of HIV services" (Swaziland PMTCT guidelines, 2006).

The reduced number of new HIV infections in children through the PMTCT programme results from the proven success of the use of ARVs in HIV-positive pregnant women where the chance of transmission is very slight. The PMTCT programme improves the chances for child survival by significantly increasing the chances of a baby born HIV-free. It has been shown that when babies are born HIV-positive, the chances of survival are reduced especially when there is no treatment given. According to a UNICEF Report, 50% of HIV-infected children not on ARVs die before the age of two years (UNICEF, 2011). The PMTCT programme does not only focus on the health of the baby, but also focuses on the health of the mother, since even after delivery the ARVs continue to be provided.

2.4 Discussion

The routine opt-out HIV testing policy was introduced in Botswana in January 2004 as part of all tests to be done for a patient (Creek, 2007). This was following the message of the then President, Dr. Festus Mogae, released in October 2003 stating that the opt-out testing approach would be introduced (Kenyon, 2005). The rationale for introducing routine opt-out testing was that since HIV was an epidemic, people could be presenting to medical facilities with manifestations of HIV which had not been detected. Moreover, the opportunity for testing was initiated to avoid late administration of ARVs when patients were at the symptomatic stage. According to the Botswana National HIV Testing Services Guidelines, the indications of routine opt-out HIV testing and counselling include pregnant women coming for antenatal classes and those presenting post-delivery (2016).

Routine opt-out HIV testing in Botswana was implemented following the introduction of universal access to ARVs for HIV-positive citizens of Botswana. The universal access to ARVs policy was introduced in 2002 through the Masa programme, which it named “New Dawn” (Center for Global Development, 2015). This was a breakthrough for the nation in the fight against HIV, hence named new dawn. However, some people were not able to access the services because of lack of knowledge of their HIV status. This

prompted the introduction of routine opt-out HIV testing in 2004 (Botswana National Guidelines HIV Testing and Counselling, 2009, p.5).

The roll out of routine opt-out HIV testing increased the testing rate including in pregnant women. The BAIS IV in 2013 showed an HIV test rate of 92.8% in pregnant women (Statistics Botswana, 2014). In 2014, the HIV testing rate was then found to be 94.3% with a partner testing rate of 18% (NACA, 2015). However, it cannot be concluded that an increased testing rate is due to a properly implemented routine opt-out testing approach. Some studies have shown evidence that a testing rate where routine opt-out testing method is used cannot be directly associated with freely made choice to test without coercion, since in some cases women are not informed they can choose not to test (Bain et al., 2015). In a study done in Botswana, eleven months after routine opt-out testing was introduced, 68% of people who tested reported that they did not feel they could decline the test when it was offered and a third of pregnant women who tested never came back for their results (Maman and King, 2008). According to the study by Groves et al. (2010), 50% of the pregnant women who attended the antenatal clinic where the routine opt-out testing, approach was used indicated that they were manipulated into taking an HIV test as part of the other tests in antenatal care. Rujumba et al. also found in their study that of all the pregnant women interviewed where the routine opt-out HIV testing approach was implemented, they understood the HIV test to be mandatory for everybody attending the antenatal clinic (2013).

The studies cited above show that incorrectly implemented routine opt-out testing leads to undisclosed mandatory HIV testing of patients. This then becomes unethical because people are supposed to be given accurate information pertaining to the services they require from the beginning rather than manipulating treatment or services without them being informed. My argument with reference to these studies is not because if there is evidence of incorrectly implemented routine opt-out testing, then mandatory testing should be introduced, but to show we need to know more about the various reasons that could be leading to this deviation of HIV testing policies and guidelines. Is it maybe because people's perceptions about HIV testing in pregnancy are changing or is it that the time needed to correctly implement the approach is inadequate? This shows further

research on perceptions of people on issues of HIV testing approaches in pregnancy is needed.

The overall implementation of the PMTCT programme in Botswana has been outlined above and the purpose of the programme is to reduce the risk of transmission of the virus from an HIV-infected mother to the baby. The risk of the routine opt-out HIV testing approach used in pregnancy in Botswana is that there are some pregnant women who may choose not to test, and this interferes with the country's fight against new HIV infections in the newborns. UNAIDS has committed to eliminate HIV by 2030 and Botswana is aiming towards the same (UNAIDS, 2016). It is therefore time for countries to come up with aggressive ways of responding to HIV so that HIV-related deaths and new infections are drastically reduced and they can aim towards eliminating it by 2030. Although there could be other ways of HIV prevention that can be used to reduce the spread of HIV infection, I have identified HIV testing in pregnancy as one of the approaches that can be used to reduce the chances of new infections. This is what this report will be addressing.

The Botswana PMTCT Programme was previously aligned to the WHO 2013 guidelines, where ARVs were only used as prophylaxis to prevent MTCT and later stopped after delivery unless the woman was eligible for treatment as per her CD4 count level. Currently, Botswana's PMTCT Programme uses Option B+, which is according to the WHO 2015 guidelines. These guidelines recommend that ARVs should be provided to all pregnant and breastfeeding HIV-positive women regardless of their CD4 count or stage of disease and that ARV treatment should be given even after delivery and completion of breastfeeding for the rest of their lives (WHO, 2015). The benefits of the Option B+ PMTCT programme are not only to the baby, but also to the mother whose health is improved. Women are encouraged to plan their pregnancies and to start taking ARVs early in their pregnancy to ensure success of PMTCT if they test HIV-positive. The guidelines recommend that there should not be any delay in initiating ARVs at whatever stage the pregnant woman presents for care, despite the complex social issues that can

interfere with adherence, which can be discussed with an HIV specialist (Botswana Integrated HIV Clinical Care Guidelines 2016, p.10).

2.5 Conclusion

It is quite evident that PMTCT is a very important programme that significantly contributes to achieving near zero percent new HIV infections in infants acquired from their HIV-positive mothers during pregnancy. The success of this programme depends on testing all pregnant women and improving their access to ARVs. Antiretroviral therapy is widely accessible by most HIV-positive pregnant women throughout Botswana in health facilities. Despite the efforts to increase the accessibility of ARVs, mandatory testing of all pregnant women is not in place, and this affects the high level rates that could be achieved in controlling MTCT of HIV where testing is mandatory and followed by treatment.

Although testing does not prevent HIV transmission of the virus to the baby, it is the first crucial step toward access to ARVs. As long as it is not mandatory in pregnant women, there is a chance that a baby can miss the opportunity for prophylaxis due to an unknown HIV status of the mother. In their latest 2016-2021 strategy, UNAIDS has a target of eliminating new HIV infections in children and ensures that the health of their mothers is maintained by 2020 (UNAIDS, 2016). One of the ways stated in the UNAIDS strategy of eliminating HIV is to provide immediate treatment to all pregnant women living with HIV (ibid). However this cannot be easily achieved if all pregnant women are not tested for HIV. Since Botswana has adopted the UNAIDS goals of zero new HIV infections and elimination of new HIV infections in children and improvement of the mother's health, it is critical to find all means of stopping new HIV infections. I believe the country cannot eliminate new HIV infections from the pregnant woman to the unborn baby as long as all pregnant women are not tested for HIV.

This chapter gave an insight into the HIV testing services and PMTCT programme in Botswana so that the currently used routine opt-out HIV testing approach in pregnancy

can be analysed and compared to a mandatory testing approach. This chapter has also given an account of the benefits of the PMTCT programme, and what the programme in Botswana entails, so that its rate of availability and accessibility can be used to support the moral permissibility of mandatory HIV testing in pregnancy in Botswana, which will be discussed in the next chapters.

CHAPTER 3: ETHICAL ASPECTS OF MANDATORY HIV TESTING IN PREGNANCY

3.1 Introduction

The opt-out HIV testing approach has been ethically justified despite the possibility of compromising the patient's right to autonomy (Wocial and Cox, 2013). The evidence of compromised autonomy where pregnant women were informed they can refuse has also been shown by some studies cited in chapter 2.4 like that of Groves et al. Botswana is one of the countries which adopted the routine opt-out HIV testing approach after the 2003 WHO recommendations. This testing approach is even applied in pregnant women. The mandatory HIV testing approach which I am arguing for in pregnancy is not commonly used because of concerns that it violates an individual's right to autonomy.

Some authors like Armstrong have stated that mandatory testing denies the patient the right to make decisions affecting them (2008). However some authors have supported mandatory testing as the crucial first step in fighting perinatal transmission of HIV (Beaudette, 2011; Chattu, 2014). The mandatory testing approach is obligatory since patients are denied the right to make free choices about whether or not they will get tested for HIV. That is, in the mandatory HIV testing approach, consent for testing is not asked for, whereas in the routine opt-out testing approach, HIV testing will be carried out unless a person expressly refuses.

In this chapter I will discuss the ethical aspects of mandatory HIV testing in pregnancy and justify mandatory HIV testing in pregnancy based on principlism and utilitarian consequentialism.

3.2 Application of Ethical principles in mandatory HIV testing in pregnancy

In this section of the chapter, the ethical principles of respect for autonomy, beneficence, non-maleficence and justice will be applied to assess the morality of mandatory HIV testing in pregnancy.

3.2.1 Respect for autonomy

“Individual autonomy is an idea that is generally understood to refer to the capacity to be one's own person, to live one's life according to reasons and motives that are taken as one's own and not the product of manipulative or distorting external forces” (Christman, 2009). The principle of respect for autonomy in the medical context means that the patient has the right to make decisions regarding the treatment they are offered without coercion or being manipulated in their decision making. This is a very important principle in medical ethics, since it is the basis of informed consent. It is good practice to always allow people to make their own decisions without manipulation as long as they have the ability to make independent choices. This principle of respect for autonomy is built on Immanuel Kant's concept of respect for persons. Kant emphasized that allowing rational people to make their own decisions without manipulation is a way of respecting them (Rachels and Rachels 2012, p.137). Health care providers have the responsibility to respect a patient's autonomy as long as the patient still has the ability to make independent choices.

Although respect for autonomy is a very important principle to adhere to in medical ethics, it is not always possible in health care delivery to respect or carry out a patient's wishes and requests. There are instances where a patient's right to give or withhold informed consent can be justifiably limited. Individual autonomy is limited in a mandatory testing approach since the testing is compulsory. In my argument for mandatory HIV testing of pregnant women, the justification for the limitations on respect for autonomy are based on the benefits it can have on the health of the woman, the unborn baby and society which will be further discussed under the principle of beneficence.

Beauchamp and Childress stated that “...respect for autonomy is not excessively individualistic (to the neglect of the social nature of individuals and the impact of individual choices and actions on others), is not excessively focused on reason (to the neglect of the emotions), and is not unduly legalistic (highlighting legal rights while

downplaying social practices and responsibilities)” (2013, p.101). This statement indicates that while respecting the autonomy of the woman, it is important to consider other factors and the impact of the decision on all the parties that can be affected.

3.2.2 Beneficence

The principle of beneficence requires moral agents to act in the best interests of others and also to weigh and balance the benefits and risks before a decision is made to ultimately produce the best outcome for the concerned person or people (Beauchamp and Childress 2013, p.202). The obligations of beneficence include preventing evil or harm, removing evil or harm and doing what is good (ibid). These obligations although closely linked to non-maleficence, differ from non-maleficence which states that one should not cause any harm or evil (Beauchamp and Childress 2013, p.204). The principle of beneficence is associated with protecting and defending the rights of others.

Similarly, I believe the principle of beneficence can be used to justify a mandatory testing approach in pregnant women. It is through testing that the pregnant woman is able to know her HIV status and also have access to ARVs. If HIV testing of pregnant women is voluntary or carried out through the opt-in approach, some women remain untested. Mandatory HIV testing can be beneficial to pregnant women, since following HIV testing and timely access to treatment can improve the overall health of the woman who could have otherwise not come forward to test. Undiagnosed and untreated HIV infection can cause the health of a pregnant woman to deteriorate quickly since by being pregnant she is already in a vulnerable state.

In my view it is therefore necessary to investigate HIV infection in all pregnant women for the sake of their health rather than letting some go undiagnosed. With the introduction of option B+ of PMTCT, where antiretroviral drugs are given immediately

after the pregnant woman has tested HIV-positive to prevent MTCT and also as lifetime treatment after delivery, I submit that mandatory HIV testing in pregnancy is justified.

I consider that mandatory HIV testing in pregnancy can also reduce stigma because it will be known that every pregnant woman has to undergo the test unlike if one is given a choice to refuse. Beaudette also alludes to this by stating that mandatory HIV testing of pregnant women would allow women at a high risk of HIV infection to comfortably test without thinking that they are being tested because they are already at a high risk of being infected (2011). Mandatory HIV testing in pregnancy also has the potential to help alleviate the fear of knowing one's HIV status because to make a decision to test is not an easy task for most people.

Mandatory testing and treatment have beneficial effects on the health of the unborn babies who have a better chance of being HIV free although born from an HIV-positive mother. HIV testing of pregnant mothers is the first stage in the fight against HIV transmission to the unborn baby. Mandatory HIV testing in pregnancy is mainly argued for as a way to prevent transmission of the virus to the baby since enrolment in the PMTCT programme depends on testing. In an article by Kudzala and Molyneux about a debate held by HIV experts in Malawi concerning whether the government should introduce mandatory HIV testing or not, some panellists stated that there is room for introduction of mandatory HIV testing restricted to special groups like pregnant women and people in orphanages (2010). They stressed how important mandatory HIV testing in pregnant women is, since it is the gateway to access of ARVs which are highly likely to prevent the baby from acquiring a chronic HIV infection (ibid).

As it has been proved that with the use of antiretrovirals in pregnancy the chances of transmission of the virus to the unborn baby are significantly reduced, I also do not see why any unborn baby should be put at a risk of acquiring HIV from an undiagnosed HIV-positive mother. This gives unborn babies a good chance of being born HIV-free from an

HIV-positive mother. The baby once born from an HIV-positive mother also has high chances of survival. “HIV-infected infants frequently present with clinical symptoms in the first year of life, and by one year of age an estimated one-third of infected infants will have died, and about half by 2 years of age” (WHO, 2006). This indicates that a significant number of HIV-positive babies not on treatment die in the early years of life.

The other beneficial effect of mandatory HIV testing in pregnancy followed by antiretroviral therapy for HIV-positive women is on the future relationship of the mother and the child. In my opinion it helps avoid the child potentially blaming the mother because she did not protect it by taking appropriate measures that could possibly have prevented the harm of being HIV infected. Although it is not an absolute obligation for the mother to take care of her children, every child expects care and protection from its mother and naturally a baby feels protected by its mother. Mandatory testing in pregnancy followed by PMTCT has the potential to give an unborn baby a life not requiring lifelong medication.

Mandatory HIV testing of pregnant women can benefit society since the burdens of HIV infection do not only affect the infected individual but also society that one lives in, since human beings are born into relationships and are inherently interdependent. Society in this context refers to people that the pregnant women would interact with like their partners, relatives, friends, healthcare workers and the community they live in. In African culture the life of an individual person is dependent on the community they live in rather than being autonomous (Coetzee and Roux, 2003). “HIV is not an individual's private infection, it is a public health hazard...” (Kudzala and Molyneux, 2010).

Mandatory HIV testing can also contribute to the reduction of the burden that HIV can have upon the state since when babies are born with HIV, it is not only a burden on the mother but also the state because the interests of all children are state protected. HIV infection impacts strongly on the state's economy since the cost of ARVs is already high

and the cost of managing all opportunistic infections associated with HIV infection is even more expensive. In 2014 it was estimated that the national average unit cost of ARVs per patient per year in Botswana was BWP2, 540 (US\$283) (Cogswell et al., 2016). “The future costs that HIV imposes on people, families, communities and countries will be determined by how national and global partners reposition the HIV response to leverage the shifts in the macro context” (UNAIDS, 2010). It is therefore necessary to identify ways to stop any new infections from occurring whether in the young or old. The United Nations Department of Economic and Social Affairs has also shown that HIV burdens the economy of the nation by reducing the pool of skilled labour, increasing use of family’s savings and investments in health expenditures and reducing private and public investments (United Nations, 2004).

3.2.3 Non-maleficence

“The principle of non-maleficence obligates us to abstain from causing harm to others” (Beauchamp and Childress 2013, p.150). This principle is the other side of beneficence because while you are acting in somebody’s best interests, you are simultaneously working towards avoiding causing any possible harm. While applying the principle of non-maleficence, harm to others is avoided by not causing pain, suffering or offence, not denying others a good life and proper standard of care or doing something that may negatively impact on their life at the present time and in future. There could be challenges with application of this principle as to who will decide what is harmful and who is supposed to be protected over the other. “With HIV infection, the child’s basic welfare interest in being healthy and long-lived is frustrated as he/she faces a shortened life with limited prospects for achieving any ulterior interests that she/he may grow to develop...” (Selemogo, 2009).

Mandatory HIV testing in pregnancy unlike other testing approaches has the greatest potential to identify any risks of HIV transmission to unborn babies since none of the pregnant women would be left untested. By preventing harm to the unborn baby,

mandatory HIV testing is justified by the principle of non-maleficence because when a HIV-positive pregnant woman does not test for HIV and enrol for PMTCT, a child could eventually be born HIV-positive. In the case where the woman's health deteriorates to the point that she loses her life, the family would then be left with the responsibility of taking care of the child and bearing the consequences of an HIV infection that could have been prevented. This is supported by Chattu, who states that mandatory HIV testing of pregnant women can help reduce the number of orphans who have lost parents to HIV-related illnesses because their mothers did not access ARVs (2014). This also deprives the child of the love of their own mother that they could have received from being raised by their mother.

On the other hand, it can still be argued that while applying the principle of non-maleficence, some harm may be caused to the pregnant woman. The harm to the pregnant woman may be psychological because she was forced to know her HIV status at a time when she was probably not ready. This is because mandatory HIV testing takes away the woman's right to autonomy since she cannot make the decision to refuse an HIV test. Armstrong in his argument against mandatory testing stated that, "In the absence of the ability to freely consent to an HIV test, an individual loses full power to determine under what circumstances he or she chooses to learn this important life-altering fact. So too is lost a significant degree of control over future decisions regarding things like subsequent disclosure to others and choosing appropriate options for ongoing care, treatment and support" (2008). Armstrong's concerns are that the woman is being used as means to achieve another end but not being treated as an end herself and that the fact that a woman is not allowed to make a choice whether to have an HIV test or not that it may cause her to lose trust in the health care system (2008). Although these are possible harms to pregnant woman, they are not as harmful as a child being born HIV-positive.

Pregnancy is already a vulnerable time and mandatory testing would create a double vulnerability since this is the time when the woman needs vital services to ensure her

safety and that of the baby (Armstrong, 2008). Mandatory HIV testing in pregnant women can affect their psychological well being in the case of an HIV-positive finding because some psychiatric conditions like depression lead to a lack of coping mechanisms by people who are HIV-positive (Kapetanovic, 2014). Depression during pregnancy has bad consequences on the health of both the mother and the baby, since it results in poor clinical, maternal and child health outcomes among HIV-positive pregnant women (Kaida et al., 2014). Depression and emotional stress have also been associated with poor adherence to medication by pregnant women, thus putting the unborn babies at risk (Nachega et al., 2012). The other effects of depression from being HIV-positive can be neglect of care by the woman for herself and the baby and loss of hope and value for life. In their study, Rochat et al. found that suicide thoughts were high in pregnant women who tested HIV-positive (Rochat et al., 2013).

It has also been argued that mandatory HIV testing subjects the pregnant woman to stigma and discrimination which negatively affects her life. Paude and Baral have indicated that studies have shown that women are more prone to be stigmatised for being HIV-positive just for the simple reason that as women they are more likely to be discriminated against than men (2015). The stigma is also because generally HIV infection is associated with promiscuous behaviour (Morris and Wessner, 2010). The danger of subjecting a pregnant woman to discrimination can result in lack of the woman's ability to take care of herself and the baby. Poor utilisation of maternal child healthcare services by women has been associated with stigmatisation and discrimination of HIV-infected women (Fatoki, 2016).

Stigmatisation and discrimination of women related to HIV infection has been seen to subject them to gender-based violence, rejection and lack of family support (Mhonde and Nyamhanga, 2015). Shah and Shah have found that pregnant women who are subjected to domestic violence have an increased risk of preterm delivery, having children with low birth weight and lack of prenatal care (2010). Some studies have indicated a link between violence towards pregnant women with high chances of

miscarriage, stillbirth and premature labour (Population Action International, 2014). Shamu et al. conducted a study and found that intimate partner violence was 40.5% in HIV-positive pregnant women who disclosed their status to their partners (2014).

Some authors have shown that mandatory HIV testing can result in pregnant women not accessing healthcare services because of the fear of disclosure of their HIV status. Beaudette in discussing the advantages and disadvantages of mandatory HIV testing stated that if pregnant women know that HIV testing is mandatory, they are likely to avoid attending the prenatal clinics, which could end up causing more problems since they will not be able to access prenatal care, thus leading to serious consequences for the health of the baby (2011). In pregnancy, decisions made by the pregnant woman affect the unborn baby. If the woman decides to refrain from accessing maternal child services because of the fear of being tested, the baby will be affected as well by losing the opportunity for care also benefiting the unborn baby through the mother's prenatal visits.

In terms of harm to the partner, relatives and friends, mandatory HIV testing of a pregnant woman has the potential of disclosing the HIV status of the father of the child in the case where the woman is HIV-positive. Although it does not necessarily mean the father of the baby would be HIV-positive when the woman is, there is likelihood which could lead to suspicions in the society they live in. The male partner as a result can be subjected to accusations and blame from the woman's relatives that he has infected their child and this can eventually lead to breakdown of the relationship of marriage (Njunga and Blystad, 2010). In Malawi, the society referred to PMTCT as the "divorce program" (ibid). The status of the woman could also affect the man who might have not known his HIV status and was not ready to know it.

In analysing the principle of non-maleficence for justification of mandatory HIV testing in pregnancy, there is a conflict between the interests of the unborn baby and the mother

as to who should be protected from harm that can result from mandatory HIV testing. That is, the pregnant woman's right to autonomy against the foetus's right to health and being protected from acquiring HIV from the mother. There is still controversy surrounding whether an unborn baby is a person who has rights and that needs to be protected from any harm. According to Selemogo, to some people it does not seem reasonable to say a person not yet born who is without interests should be protected from harm (2009). "This stance is, however, mistaken in view of the expectation that, all things being equal, the child will be born and that this consideration in itself makes it reasonable to ascribe to the child certain future interests which would then have the potential to be set back, even before that potential person becomes an actual person" (Selemogo, 2009). The statement by Selemogo shows that although the unborn baby is not yet born to be an independent person, it is still necessary to be cautious of any decision made that will affect their lives in the future once they are born. .

The principle of non-maleficence justifies preventing harm of HIV infection to the unborn from the pregnant woman. The other harms that have been stated to possibly occur to the pregnant woman with mandatory HIV testing approach like stigma and discrimination, can still occur in the case of any testing approach but harm of HIV transmission to the baby cannot be prevented unless a woman has been tested and taken appropriate therapy. It is only in mandatory testing where no pregnant woman's HIV status would be missed. The other argument is that even if an HIV-infected pregnant woman does not test for HIV at pregnancy because of the fear of harms that can result, her HIV status can eventually come to be known either through the baby being sick or her health deteriorating. She will then still be subjected to the harms that she hoped to avoid while pregnant. However, the baby would be already harmed in the case where there has been HIV transmission which could have been prevented.

The question that arises is, why should the fear of knowing one's status while pregnant be at the expense of the health of the unborn baby? And for the pregnant woman who is already HIV-positive, avoidance of HIV testing might not be for life, it could only be a

matter of time that she will eventually will become ill and have to test and enrol for treatment unless she chooses to neglect her health completely and eventually die. The harms associated with testing for HIV whether voluntarily or not, can still not be avoided but HIV transmission to the baby can be prevented if testing is at pregnancy followed by treatment. Therefore the harm that can occur to the unborn baby from acquiring HIV in my opinion supersedes the harm that the pregnant woman can bear and this justifies mandatory HIV testing in pregnancy from the principle of non-maleficence.

3.2.4. Justice

The principle of justice emphasises fairness in treating everyone equally. This involves equality in handling similar circumstances or situations and also maintaining a balance between benefits and risks such that the distribution of benefits and burdens between people is equal and fair (Beauchamp and Childress 2013, p.250). This is also not an easy principle to apply since there are no defined criteria for equality and people will be treated equally based on what aspects are considered to be equal. The principle of justice can be applied in the context of mandatory HIV testing where there are conflicting interests between the pregnant woman and the unborn baby. I subscribe to the position that there has to be fairness applied towards the unborn baby such that the burdens of being HIV- infected from lack of testing and PMTCT by the mother are not borne by the baby who cannot participate in decision-making which will affect them in future.

At the same time, it is unfair for the woman's rights to be violated for the sake of her unborn baby. However on weighing the burdens, in my opinion the risk of the baby acquiring a fatal infection like HIV and living with it their entire lifetime, is however heavier than the burden a woman can get from being denied her rights for the sake of the baby. Therefore mandatory HIV testing is justified by the principle of justice.

Lack of testing and PMTCT by the woman also create an unfair burden on members of society who have to bear the consequences of taking care of a sick baby. This can have an emotional and financial effect on the family. As I have already mentioned earlier in this chapter, the woman's decision not to test does not only affect her. In the case where the baby is born HIV-positive, this will have impact on the father of the baby if he is known, the family, society they live in and the state. The burden of HIV-infected babies is also borne by the state which has to provide ARVs and treatment of opportunistic infections. The baby will become a subject of interest to the state immediately after it is born, so it is important for the state to protect the unborn baby since whatever happens to it while in utero will also become the state's responsibility after birth. The state therefore has a responsibility to protect the vulnerable unborn baby from bearing the burdens of lack of testing and enrolment on treatment by the mother. Therefore mandatory HIV testing is justified on the principle of justice so that there is no unfair distribution of burdens to the unborn baby, society and the state.

3.3 Utilitarian Consequentialist Approach on mandatory HIV testing in pregnancy

Utilitarianism is a type of consequentialist moral theory which states that a morally right action is one that produces the most good (Driver, 2014). Utilitarianism is founded on the principle of utility. "This principle requires us, in all circumstances, to produce the most happiness that we can" (Rachels 2009, p.98). "The greatest happiness of the greatest number is the foundation of morals and legislation" (Bentham cited in Rachels 2009, p.98). Utilitarianism uses consequences as a sole determinant of whether an action is morally right or wrong (Rachels 2009, p.98). In other words, the end result of an action justifies the means used to achieve it.

There are two types of utilitarianism namely act and rule utilitarianism. Act utilitarianism evaluates utility of an individual action on a case-by-case basis. It states that a morally right action is one that produces the best overall results than any other available action that could have been performed (Internet Encyclopedia of Philosophy). On the other hand, rule utilitarianism evaluates moral rules. It states that a morally right action is one

that conforms to the moral rules and moral codes which lead it to produce the best outcome than any other rule that can be applied to that particular situation (Internet Encyclopedia of Philosophy).

The consequences of mandatory HIV testing can be summed up as the benefits (positive consequences) and harms (negative consequences) associated with the testing approach. According to the utilitarian approach, a moral right action is one that will produce the best consequences for the greatest number of people affected by the action. In the case of mandatory HIV testing in pregnancy, the overall consequences which have been discussed under the principles of beneficence and non-maleficence are good to the pregnant woman, the unborn baby, the state and society as compared to the harms it can cause. This shows that the action of implementing mandatory HIV testing in pregnancy brings the best outcome for the greatest number of all concerned.

Mandatory HIV testing in pregnancy identifies a risk of HIV transmission to the unborn baby which could have otherwise been missed if the woman had opted not to test with the opt-out testing approach. The overall consequence of having a baby born HIV-negative because every woman is tested for HIV and given appropriate treatment is a good that outweighs the consequence of denying the woman her autonomy to refuse HIV test. This is not only a good consequence to the mother who has given birth to a healthy baby, but also to society and the state have the responsibility of protecting the baby.

Although in the utilitarian approach an action could still cause harm to some people, the overall outcome should cause greatest benefit. The adverse consequences of mandatory HIV testing affecting the woman are less serious than the consequences of having an HIV-infected baby from an HIV-positive mother who was not tested at pregnancy. In addition, the adverse consequences associated with mandatory HIV testing like stigmatisation and discrimination can also occur even if the HIV status of a woman is known with routine opt-out testing and voluntary approach. However, the

positive consequences of preventing the risk of HIV transmission to every unborn baby can only occur if every pregnant woman is tested for HIV through mandatory testing followed by PMTCT. I therefore consider mandatory HIV testing in pregnancy to be morally justified from a utilitarian consequentialist view since overall positive consequences can be achieved with it.

3.4 Discussion

Mandatory HIV testing in pregnancy has been ethically analysed according to the principles of respect for autonomy, beneficence, non-maleficence and justice. Utilitarian consequentialist moral theory has also been used to justify the morality of mandatory HIV testing in pregnancy. Although the main argument against mandatory HIV testing in pregnancy that it violates a woman's right to autonomy has been justified under the principles of beneficence, non-maleficence and justice, there is a debate as to whether the unborn baby has rights to weigh against the rights of a living person. The controversy is similar to the issue of abortion. Some authors have stated that although the zygote has various developmental stages until birth, the foetus does not have any interests as long as it is in a developmental stage where it is still non-conscious and non-sentient (Steinbock in Kuhse and Singer 2009, p.149). On the other hand some authors like Pullman have also argued that although foetuses are not living persons, they are of the human species, and therefore have human dignity and need to be protected as much as a living person (2010). According to Warren, Marquis believed that as much as human beings value their futures, the zygotes and foetuses which have the potential to become human beings have the right to life because of the value of their future (Warren in Kuhse and Singer 2009, p.144). Although I agree that the rights of a living person surely outweigh those of not yet born, in the case of mandatory HIV testing, It is submitted that the principle of autonomy is outweighed by beneficence, non-maleficence and justice which supports protection of the fetuses from any kind of harm, since upon birth will be entitled to all rights of a living person.

In respect to the principle of beneficence, mandatory HIV testing in pregnant women is argued on the basis of being beneficial to the unborn baby, pregnant mother and the society despite denying the woman her autonomy. "Third party interests in infectious disease scenarios might compel some degree of compulsion to protect third parties" (Bain et al, 2015). In the case of non-maleficence where there has to be no harm caused while acting in the best interests of the concerned person, mandatory HIV testing has the potential of causing harms to the pregnant woman. Although stigma and discrimination has been one of the possible harms resulting from mandatory HIV testing of pregnant women, some authors like Beaudette have argued that the benefits of testing followed by treatment outweigh the fear of being stigmatised (2011). This has been shown by Pisani who asks: "What is worse? Refusing an HIV test in order to avoid potential discrimination and in turn die earlier because they were unable to receive treatment? Or taking an HIV test and risking people discovering their status, yet still being able to start treatment and living a longer and healthier life in which symptoms are kept at bay" (Pisani cited in Beaudette, 2011). This basically shows that even if the woman does not test for HIV during pregnancy, symptoms of HIV infection will eventually show especially when she is not on treatment and can even lead to AIDS and eventually death. Therefore the value of living longer outweighs the fear for being stigmatised and discriminated against that it is best for a pregnant woman to undergo HIV test so that they can access treatment.

In his argument against fear of stigma and discrimination by pregnant women, Selemogo states that "it would be morally questionable if one should shift the burden of HIV-related stigma to unborn children who, if infected are likely to face that stigma at a very young age, when they lack the psychological coping mechanisms which adults supposedly possess" (2009). In this argument Selemogo shows that if pregnant women do not test for HIV because of the fear of being stigmatised if found to be HIV -positive, then in the case where the unborn baby gets infected, the child is also left with the burden to bear the stigma (Selemogo, 2009). Therefore in my opinion the pregnant woman has the responsibility of preventing any kind of avoidable harm to the unborn baby including of being infected by HIV rather than only considering themselves.

In addition to stigma and discrimination being undesirable because they may lead to violence, this harm cannot solely be linked to the result of mandatory HIV testing. Obermeyer has also shown that there is no evidence that HIV testing and disclosure of status is linked to stigmatisation especially where the woman has been already in an abusive relationship (2007). Shamu et al. also found in a study that intimate partner violence after a pregnant woman disclosed her HIV status to her partner was strongly linked to previous intimate partner violence prior to pregnancy (2014). Other people believe that mandatory HIV testing alleviates stigmatisation because it normalises HIV. An example of this is the statement by Deka who supports President Edgar Lungu's recent introduction of mandatory testing in Zambia, which includes the pregnant women. "[Mandatory HIV testing] provides individuals with opportunities of awareness on safer options for reproduction, reducing mother-to-child transmission, and infant feeding; motivation to initiate or maintain safer sexual and drug related behaviours among others. Furthermore, mandatory counselling and testing provides an opportunity to reduce the spread, burden and the stigma of HIV/AIDS" (Deka, 2017).

The assessment of mandatory HIV testing from a utilitarian consequentialist view shows that there will be more harm to the baby and society if it is not introduced. The consequences of lack of testing if a woman chooses not to be treated, followed by vertical transmission of HIV would be a bad outcome and not morally right from a consequentialist view. As previously mentioned, there is a mortality rate of 40% for those HIV infected children under the age of one and not on treatment (WHO, 2006). Vertical transmission of HIV infection in pregnancy is not the woman's concern alone, since the state also has interest in the baby. Some authors argue against mandatory HIV testing for pregnant women on the basis of unavailability of treatment. It is unethical to test people and have no means of assisting them. Currently in Botswana, there is an increased availability and access to ARVs where they are offered to every person who tests HIV-positive following the treat-all strategy (Handbook of the Botswana Integrated HIV Clinical Care Guidelines, 2016).

The principle of justice, while weighing the burdens of mandatory HIV testing on the pregnant woman against the burden on the unborn baby, state and society indicates that the burden is heavier if a child gets infected from a mother who did not test for HIV during pregnancy. The degree of harm is not comparable to the child being harmed for being born HIV-positive. In my view, in the same manner mandatory HIV testing in pregnancy is ethically justified to prevent harm to unborn babies and the society. Although in the above cases, protection is given to born people who have rights, in the case of pregnancy there is still a debate as to whether a foetus or unborn baby has a moral standing. The debate is centred on the question of when does human life begin. Despite the controversy and the fact that a pregnant woman as a living person has more rights than an unborn baby, if the unborn baby is not protected while in utero, then after birth, the child will become a harmed person with HIV infection that could otherwise been prevented. "It should be noted... that privacy is not an absolute value, and does not trump all other rights or concerns of the common good..." (Etzioni cited by American Civil Liberties Union, 2008).

The unborn babies are vulnerable in this situation since they cannot speak for themselves about what will benefit them, though the consequences of the decisions made will affect them later in life after birth. It is an ideal to allow pregnant women to make decisions about their bodies, but it is important to appreciate that the decisions they make do not only affect them as they have future implications on the lives of their unborn babies.

3.5 Conclusion

In this chapter, I have discussed the ethical aspects of mandatory HIV testing in pregnancy and how mandatory HIV testing can be ethically justified from principlism and utilitarian consequentialism approaches. The principles justify mandatory HIV testing in pregnancy except for autonomy, since mandatory testing does not require an individual's consent. However, none of the principles is absolute because some can be

used to overrule the others. The principles of beneficence, non-maleficence and justice have been used to justify mandatory HIV testing in pregnancy.

A utilitarian consequentialist approach justifies how mandatory testing of pregnant women can be morally right, since overall it can bring good results to the baby, mother and society. Although there are some undesirable consequences of mandatory testing to the woman, like facing stigma and discrimination, the discussion in this chapter shows that the testing approach cumulatively has more benefits to the pregnant mother, baby and the society than the harms that can be caused to all of them. Mandatory HIV testing in pregnancy therefore results in greater good than bad, thus being morally acceptable from a utilitarian view.

In comparison to the benefits and the harms, I again submit that mandatory HIV testing in pregnancy in Botswana would provide more benefits than harm. Prevention of a disease is always the best practice in medicine and it should be done where there are means to do so. It is also worth noting that HIV testing would not be the first test to be performed during prenatal care without the woman's consent. Prenatal care involves tests such as for syphilis, a disease which also could be fatal. "All pregnant women should be tested for syphilis, not just those perceived as being "high risk"" (WHO, 2012).

My argument for mandatory HIV testing in pregnant women rather than opt-out routine HIV testing is that it aims at ensuring that every unborn child is given an opportunity to fall within the less than 1% chances of MTCT of HIV with the use of ARVs, rather than being put at a higher risk of 10% of MTCT of HIV without the use of ARVs as per the CDC figures (CDC, 2016). The next chapter will conclude on the need to introduce mandatory HIV testing in pregnancy as a policy in Botswana and how it can be implemented.

CHAPTER 4: MANDATORY HIV TESTING IN PREGNANCY IN BOTSWANA

4.1 Introduction

This chapter is the concluding chapter of the research report on assessing the moral permissibility of mandatory HIV testing in Botswana. The previous chapters have taken into account the HIV testing approaches in Botswana especially for pregnant women, the PMTCT programme and availability of ARVs to pregnant women, ethical considerations in the implementation of mandatory testing and benefits and the possible harms of the mandatory approach. The issues were examined as a way of determining if it is time that mandatory HIV testing of pregnant women in Botswana can be morally justified.

The third President of Botswana who was committed in ending new HIV infections in Botswana, Dr. Festus Mogae, stated in his address in 2008 at the International AIDS Conference in Mexico that as much as the government is doing everything to provide treatment, the nation's hope to victory over HIV/AIDS will be determined by focusing on prevention of transmission (Kumar, 2012).

The previous chapters of this report reflect that I have taken the view that it is time to implement mandatory HIV testing in pregnant women in Botswana since I believe it is morally permissible. In this concluding chapter, I will argue for mandatory HIV testing in pregnancy as a policy in Botswana based on the policies that other countries have implemented when using this testing approach. The discussion will include how mandatory HIV testing is to be introduced. It is however important that prior to arguing for mandatory HIV testing in pregnancy as a policy, I discuss and acknowledge the reasons that prevent women from taking an HIV test through other approaches.

4.2 Barriers to HIV testing in pregnant women

It is important to understand that while arguing for mandatory HIV testing of pregnant women, there are other factors that can prevent women from taking an HIV test no matter what testing approach is used. These factors can be grouped into socio-cultural, socio-economic and those related to the health facilities and programmes offered (Okoli and Lansdown, 2014).

4.2.1 Socio-cultural Factors

The socio-cultural factors including stigma and discrimination, cultural and religious background, and gender inequality have been found to be the main barriers to HIV testing in women (Okoli and Lansdown, 2014). Some cultures recognise men to have more power and control in decision-making in their relationships and marriages, which has an impact on family planning issues and sexual health (Lefkowitz et al., 2014). This is a result of gender inequalities found in some societies, which can also influence a decision by a pregnant woman to test for HIV. Similarly, religion has a role to play in denying women the right to make decisions on issues affecting them and recognising men as heads of families, who are less involved in giving support to the women in the overall care and raising of children (Lefkowitz et al., 2014).

4.2.2 Socio-Economic Factors

Poverty is one of the main factors that can prevent women from HIV testing and accessing PMTCT. The lack of resources due to low socio-economic status can have an impact on a successful PMTCT programme, since women may not be able to reach far-away health facilities where they can test, access PMTCT and also be able to do follow-up visits. Poverty also increases the dependence of women on men and this causes women not to freely make decisions about their sexual health (Pascoe et al., 2015). While assessing the effect of poverty on HIV/AIDS, Mbirimtengerenji states that even if the poor can be educated and empowered to take appropriate decisions about their

health, they fail to do so due to lack of resources and the conditions of their lives (2007). This is evident where there is poverty, even if the pregnant women can be empowered about their health and the importance of HIV testing, they might not get tested if the man is not in agreement since they would be dependent on them for their livelihood.

4.2.3 Health-facility related factors

Some facility-related barriers to HIV testing by pregnant women include ill-treatment by health workers, lack of adequate information shared and increased waiting time (Kwapong et al., 2014). The shortages of health care practitioners and the use of inadequately trained health care practitioners contribute to the ineffectiveness of PMTCT programmes, thus contributing to women's reluctance to test for HIV. Lack of training and comprehensive understanding of the PMTCT programme has resulted in improper counselling and education of women in the programme (Levy et al., 2010). Although the PMTCT programme has been shown to have a high success rate in the prevention of HIV transmission to the unborn baby, if not effectively implemented, the results will be low.

The PMTCT programmes are implemented with little involvement of male partners and for women accessing, thus not helping to alleviate the burden when a woman has to disclose her HIV status to a man (Njunga and Blystad, 2010). In addition, it creates lack of appreciation of the benefits of the programme by male partners and lack of support from male partners for women accessing PMTCT services (Okoli and Lansdown, 2014).

4.3 Policy reform: Mandatory HIV testing in Pregnancy in Botswana

4.3.1 Defence for Mandatory HIV Testing in Pregnancy in Botswana

Mandatory HIV testing of pregnant women in Botswana can be developed into a policy despite the barriers to HIV testing in pregnancy mentioned above. It is worth

acknowledging that it is not always that women would choose not to test, but there are other factors that interfere with their decisions to test for HIV. However, the socio-cultural, socio-economic and health facility-related factors discussed as barriers to HIV testing in pregnant women apply to all testing approaches and not specifically to mandatory testing. Therefore the argument for mandatory HIV testing cannot be discounted on the basis of the barriers to HIV testing for pregnant women, since they can still occur with other testing approaches. In terms of socio-cultural factors, mandatory testing of pregnant women can actually bring changes for the good because where there is male dominance in some cultures, women will not be faced with the challenges of being denied the opportunity to make decisions for testing.

As for socio-economic factors, mandatory HIV testing in pregnant women can only be justified where accessibility to PMTCT is guaranteed, so that the poor are not disadvantaged. Despite all the mentioned benefits of mandatory HIV testing in pregnancy as per chapter 3, where there is no wide accessibility and availability of treatment, mandatory HIV testing would be unethical. This is because people cannot be forced to be told they are sick when no help can be offered to them. In the past where treatment was not available to every pregnant woman who tested HIV-positive, low availability and access to ARVs was a valid basis for an argument against mandatory HIV testing. Chattu in his article defending mandatory HIV testing also states that it would be wrong to implement it just for the sake of testing, but it should be done where there is continual access to HIV treatment (2014).

In the past when ARVs were only availed according to the CD4 count, mandatory HIV testing of pregnant women in Botswana would not have been morally acceptable, because there would not have been treatment available for everybody who tested HIV-positive. Previously, Botswana determined eligibility to receive ARVs when the CD4 count was below 400 cells per cubic millimetre of blood (Botswana HIV AIDS Guidelines 2008). Over the years the availability and accessibility of ARVs in Botswana has increased, and as a result the argument for mandatory HIV testing for pregnant women has become stronger. As an indication of the increased access and availability of ARVs,

Botswana has lately adopted a “treat all” strategy as one of the ways to fight the burden of HIV/AIDS (Handbook of the Botswana 2016 Integrated HIV Clinical Care Guidelines, 2016). In terms of this strategy, ARVs are available to every person who tests HIV-positive no matter what their CD4 count is.

There is evidence that mandatory HIV testing in pregnant women is ethically acceptable because there are other places in the world where mandatory HIV testing of pregnant women has been adopted. “It is seen in the recent past that mandatory testing has gained a lot of political support in certain regions of Gulf countries (Saudi Arabia, UAE), provinces in China, India, Ethiopia, Cambodia and Senegal” (Chattu, 2014). In New Jersey in the United States the law implementing mandatory HIV testing in pregnancy was passed in 2007, and it requires testing to be done at the initial or early stage of pregnancy and later in the third trimester (Wright 2015, p137). In Connecticut, the Public Health Act 17-6 expects healthcare workers to carry out a mandatory HIV test in pregnant women within a month of their first presentation for prenatal care and a second HIV test in the third trimester (Robinson and Cole, 2017). The provisions of the law also include the giving of consent by women to HIV testing as per the Informed Consent Law for HIV-related testing, non-requirement of pre- and post-test HIV counselling, but provision for counselling of other services and treatments offered, involvement of guardians in the case of minors and assistance on partner notification (ibid).

Magriples did a study in Connecticut on the two groups of people after mandatory HIV testing was passed into the law. The first group accessed the testing and counselling services prior to the law and the second group of women was seen after the enactment of the law. It was found that the percentage of those who tested before the law was passed was 39.1%, as opposed to 91.4% for those treated after the law (Reuters Health, 2001). It was stated that after the study, Magriples confessed that at first she was against the law because she thought it was manipulative, but now supports it and stated that it “appeals to the maternal instinct in these women to protect their babies” (ibid). The second study was conducted by an obstetrician, Dr. Cusick, who followed

2,239 women after the law was passed in Connecticut. He identified seven HIV-infected pregnant women and one HIV-positive male partner and HIV-positive child of one of the women. Dr. Cusick also indicated that there was a possibility of missing six of these nine cases if the law for mandatory testing was not in effect (Reuters Health, 2001). This shows how important mandatory HIV testing is in pregnancy in the fight against new HIV infections in children.

4.3.2 Implications of Policy Implementation

The implementation of mandatory HIV testing for pregnant women in Botswana would require a policy incorporating some changes from the current HTC guidelines which guide HIV testing. The present guidelines state that a routine opt-out testing approach should be done with pre- and post- HIV testing and counselling (Botswana National HIV Testing Services Guidelines, 2016). The guidelines also emphasise that confidentiality is still to be maintained.

The new policy would take into consideration the process of implementing mandatory HIV testing, confidentiality, pre- and post-test counselling services, mandatory provision of treatment, follow-up and after care of the baby and the mother. The latter would include provision of formula milk for non-breastfeeding mothers, regular medical check-ups and ongoing education on HIV/AIDS for the mother. Mandatory testing can be implemented at the time when a pregnant woman attends for prenatal care. This would be the point at which all pregnant women who make contact with the healthcare centre will have information about HIV status captured into the records after testing. Pre- and post- HIV testing counselling would be required since continual support is still to be offered to the woman. The testing would be required to be carried out confidentially but the woman must be encouraged and assisted where required to disclose to the partner and relatives.

Since mandatory testing without mandatory treatment will not give any of the benefits already mentioned that justify the testing approach, the new policy would also have to cater for mandatory treatment. Although I advocate that mandatory treatment should be implemented to complement the first step of mandatory testing as a way of reducing HIV transmission to the baby, I acknowledge that the issues of mandatory medical treatment are complex. The success of medical treatments is determined by compliance and monitoring which in this case can be very challenging. However, there are already mandatory treatments for diseases like XDR tuberculosis, which are done based on the greater good of public health. There are mandatory immunizations in children for the sake of the children and the public at large for certain illnesses like measles.

Previously, some authors have argued for mandatory HIV testing in pregnancy and treatment on the basis of other mandatory treatments in place. Levinsky has likened a baby's immunizations with mandatory testing and treatment of HIV (2003). Etzioni also gives the example of mandatory testing of sickle cell disease in children as being similar to mandatory HIV testing and treatment because when it was implemented, there were the same concerns that are there with mandatory HIV testing (Etzioni cited by American Civil Liberties Union, 2008).

Botswana subscribes to the UNAIDS 2016-2021 strategy that targets eliminating new HIV infections in children and that the health of their mothers is sustained by 2020 (UNAIDS, 2016). It is therefore the right time to find other ways that can contribute to ending new HIV infections in newborns.

4.4 Discussion

There will be anticipated resistance in the society to the implementation of mandatory HIV testing in pregnant women despite the valid arguments for mandatory HIV testing in pregnancy. For example, in Zambia when President Edgar Lungu announced that

mandatory HIV testing for everyone will be introduced, there was resistance from politicians in opposition parties (Tembo, 2017). Some felt it would cause most people to stay away from health facilities and that people should not be forced to test for HIV (ibid). The same opposition is likely to be experienced on the introduction of mandatory HIV testing of pregnant women in Botswana.

It might be difficult for mandatory HIV testing in pregnancy to work in practice due to a lack of acceptance. There are also other issues if not taken into consideration that may hamper mandatory testing of pregnant women being successful. These include the need for the continual availability and accessibility of ARVs. Although already mentioned, access to ARVs in Botswana has increased, the state still would have to ensure increased sites for ARVs and increased access to prenatal care services in healthcare centres. This also has an implication on hiring more staff and training of HIV counsellors, ARV dispensers, community-based healthcare workers and midwives.

4.5 Conclusion

The transmission of HIV to unborn babies is an issue of concern and over decades ways have been sought to reduce and eliminate it. Mandatory HIV testing of pregnant women, followed by treatment has been shown to be a way of reducing new HIV infections in children. I therefore conclude that it is time for mandatory HIV testing to be required of pregnant women in Botswana, after taking into account the available resources in place. In my view, it is therefore morally permissible to mandate HIV testing for every pregnant woman in Botswana today.

Although in my view it is clearly evident that theoretically mandatory HIV testing in pregnancy is ethical and has more benefits than harms, there are challenges that can be experienced in implementing it. These include ensuring mandatory treatment following mandatory testing, loss of patients that have been diagnosed due to lack of follow-up or

to non-attendance, confidentiality and preventing harms to the pregnant woman once she is found to be HIV-positive.

While I have argued for mandatory HIV testing in pregnancy in the Botswana context and advocate for policy change, I believe that for the Ministry of Health and Wellness to come up with a new policy, it should carry out the following recommendations prior to implementation.

4.6 Recommendations

4.6.1 Conduct studies in Botswana to seek public opinion on the issue of mandatory HIV testing of pregnant women prior to implementation of such a policy.

4.6.2 Designate some ante-natal clinics for a pilot project of mandatory HIV testing of pregnant women before rolling it out to the whole country, so that the true position is assessed to determine its feasibility.

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6.0 APPENDICES

6.1 Plagiarism Declaration Form

UNIVERSITY OF THE
WITWATERSRAND
JOHANNESBURG



FACULTY OF
HEALTH SCIENCES

PLAGIARISM DECLARATION TO BE SIGNED BY ALL HIGHER DEGREE STUDENTS

SENATE PLAGIARISM POLICY: APPENDIX ONE

I KELEBALWE LEKAM-TACHEBA (Student number: 1111115) am a student
registered for the degree of MSc MED (BIOETHICS & HEALTH LAW) 2018
in the academic year 2018.

I hereby declare the following:

- I am aware that plagiarism (the use of someone else's work without their permission and/or without acknowledging the original source) is wrong.
- I confirm that the work submitted for assessment for the above degree is my own unaided work except where I have explicitly indicated otherwise.
- I have followed the required conventions in referencing the thoughts and ideas of others.
- I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief that this is not my own unaided work or that I have failed to acknowledge the source of the ideas or words in my writing.
- I have included as an appendix a report from "Turnitin" (or other approved plagiarism detection) software indicating the level of plagiarism in my research document.

Signature: [Signature] Date: 17/07/18

1

6.2 Ethics Waiver Certificate

Human Research Ethics Committee (Medical)

Golden Jubilee: October 1966 – October 2016

Research Office Secretariat: Faculty of Health Sciences, Phillip Tobias Building, 3rd Floor, Office 301,
29 Princess of Wales Terrace, Parktown, 2193 Tel +27 (0)11-717-1252 /1234/2656/2700
Private Bag 3, Wits 2050, email: zanele.ndlovu@wits.ac.za
Office email: hrec-medical.researchoffice@wits.ac.za
Website: www.wits.ac.za/research/about-our-research/ethics-and-research-integrity/

Ref: W-CJ-161118-1 18/11/2016

TO WHOM IT MAY CONCERN:

Waiver: This certifies that the following research does not require clearance from the Human Research Ethics Committee (Medical).

Investigator: Kelebalwe Lekau-Tacheba (Student No 1111115)

Project title: Is mandatory HIV testing in pregnant woman in Botswana morally permissible?

Reason: This is a review of information in the public domain. There are no human participants.



Professor Peter Cleaton-Jones
Chair: Human Research Ethics Committee (Medical)



Copy – HREC (Medical) Secretariat: Zanele Ndlovu, Rhulani Mkansi.