

ORGAN DONATION IN SOUTH AFRICA: OPT-IN, OPT-OUT OR MANDATED CHOICE?

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Submitted to the Faculty of Health Sciences, University of Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree Master of Science in Medicine (Bioethics and Health Law).

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I Kirstin Hawkins declare that this Research Report is my own, unaided work. It is being submitted for the Degree of Master of Science in Medicine (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.

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Abstract

Given the enormous gap between supply and demand for donor organs in South Africa, this research report seeks to answer the question ‘which system of organ donation is the most ethically and practically suitable for South Africa?’ I begin with an analysis of the varying aspects of the country that influence organ donation rates. Following this, opt-in, opt-out and mandated choice are all critically evaluated in terms of their suitability as organ procurement systems in the country. The four principles of autonomy, non-maleficence, beneficence and justice (theory of Principlism) are used to assess each system. In conclusion, a hybrid system of opt-in and mandated choice is argued to be the most ethically and practically appropriate system for South Africa to improve organ donation rates. As would be required for any improvement of the system, effort needs to be made to increase awareness on the topic of organ donation throughout South Africa.

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Chapter 1: Introduction

1.1. Background

In 1954 the medical fraternity was astounded by the first successful human organ transplant of a kidney from one man to his identical twin brother (Naude, Cur, Nel and Uys, 2002). Eight years later deceased donation¹ was pioneered and following this in 1967 South Africa joined the ground-breaking list of firsts when Dr Christiaan Barnard performed the world's first successful heart transplant (LiveOnNY, 2016). Organ transplantation is a means by which people in end stage organ failure are granted a chance to survive and gain a better quality of life than they would have by being kept alive via alternative treatment methods. As a result, the demand worldwide is constantly increasing but supply cannot keep up (Van Dalen and Henkens, 2014).

Three systems are most commonly discussed. In South Africa, a system of **opt-in organ donation** is currently used. In this system, all citizens are non-donors unless they explicitly state that they would like to donate their organs, with family consent at the time of donation being the final decision (Etheredge, Turner and Kahn, 2014). Becoming a donor is done through a will, a signed and witnessed document or a witnessed oral declaration, as per the National Health Act, 2003, S.62(1). In cases where wishes have not been so formally expressed the National Health Act (2003) states that the next-of-kin makes the decision on organ donation. **Opt-out organ donation** (regularly referred to as presumed consent) is a system where everybody is presumed to be an organ donor unless they have explicitly and formally removed themselves from the list (Gill, 2004). And finally **mandated choice** (also known as

¹ Organ donation takes two forms: Living donation where the donor is still alive when the donation is made and deceased donation where the donor organs are sourced from cadavers (Muller, Thomson and McCurdie, 2015). Since living donation raises separate ethical issues, such as the possibility of harm to the donor, the scope of this report is limited to the ethical implications of systems for obtaining organs sourced via deceased donation.

mandated consent or required response) is a system of organ donation where citizens are required to make a decision on their status as an organ donor. The decision would need to be made when completing various forms of government run procedures in which many people participate (it needs to be as inclusive as possible), such as completing a tax return, applying for a driver's licence etc. (Cotter, 2011). Typically, under mandated choice people are given three options of which they need to select one: Organ donor / non-organ donor / family decision upon death (Cotter, 2011). These selections and other details on mandated choice will be discussed in more detail within Chapter 5.

Some discrepancies in terminology with reference to organ donation certainly need to be acknowledged as it has the potential to impact on organ donor rates due to donor systems being misunderstood or misinterpreted. As expressed by Whyte, "the great enemy of communication ... is the illusion of it" (Whyte, 1952). 'Presumed consent' is an unappealing term to many as it highlights the fact that presuming consent is not consent at all (Erin and Harris, 1999). Thus, using the term 'opt-out organ donation' is a much more attractive phrasing of the system. Similarly, the wording of 'mandated consent' may be confusing in that it could be interpreted as forced consent to be an organ donor, rather than a clearer description of the system which is that making a choice is mandatory, consenting is not. Thus 'mandated choice' or 'required response' are far more suitable terms.

In terms of South African Law on organ donation, No.61 of 2003: National Health Act explains legislature surrounding organ donation in chapter 8: Control of Use of Blood, Blood Products, Tissue and Gametes in Humans. It strongly prohibits payment for donor organs, and has stated the restriction on transplant recipients to South African residents only, unless specifically allowed by the Minister of Health. This was included to prevent organ transplant tourism (McQuoid-Mason, 2012). Among other things, the Act details authorised individuals permitted to deal with donated organs and transplanting of these organs, as well as consent processes regarding next-of-kin and the distribution of donor organs (National Health Act, 2003, S.62(2)).

The global literature on organ donation indicates a popular move away from opt-in organ donation and a strong consideration of presumed consent. This is clearly seen in the papers by Erin and Harris (1999), Gill (2004) as well as Bird and Harris (2010).

1.1.1 Research Question

This report considers the varying systems of organ donation, including mandated choice, to answer the question: Which system of organ donation is the most ethically and practically suitable for South Africa?

1.2. Rationale for the Study

The number of organs transplanted in South Africa has been steadily decreasing, with 2013 showing a slight increase. Table 1 displays the latest available statistics:

Table 1 Number of Solid Organ Transplants Performed in South Africa

YEAR	NUMBER OF SOLID ORGAN TRANSPLANTS PERFORMED
2009	376
2010	344
2011	337
2012	319
2013	335

(The Organ Donor Foundation, 2016)

However, the demand for organs is constantly growing. I will argue that this is one of the factors which shows that South Africa's opt-in organ donation system is not adequate and needs to be re-evaluated. Organs are a scarce resource and the system of organ donation used in a country influences the magnitude of the gap between supply and demand.

The South African based research on organ donation is mostly empirical and focuses on either a particular organ, or public/ professional opinion on the topic. While the empirical research is important, for the most part the studies done on organ donation in South Africa do not evaluate the appropriateness of organ donor systems for this

country. However, in the limited number of ethical studies done within the South African context of organ donation, an overriding theme depicts an organ donation system in need of critique and improvement (Rens, 2008). Thus, in conjunction with the problem of the shortage of donor organs there is a research gap which this report attempts to fill.

1.3. Thesis Statement, Research Aim and Objectives

The research aim is to critically evaluate the organ donation systems of opt-in, opt-out and mandated choice, and determine which system is practically and ethically best suited in a South African context.

I argue that a hybrid organ procurement system of opt-in and mandated choice is the most ethical and practical system of organ donation for South Africa.

Study objectives:

- To determine the practical and ethical shortcomings and merits of the opt-in, opt-out and mandated choice systems in the South African context.
- To argue in favour of a hybrid system of opt-in and mandated choice as a more ethical organ donation system, which is also practically suited to South Africa.

1.4. Argument Outline

The ethical evaluation of consent systems in organ donation lends itself to a normative study as philosophical theories are used to draw conclusions. With regards to the assessment of the practicality of an organ donor system in South Africa I will draw on the empirical data provided by several papers on the topic. Following this I will analyse empirical evidence concerning consent patterns in South Africa and provide details of how transplantation in the country is arranged. Muller (2013) also assesses these issues in his paper titled *Organ Donation and Transplantation in South Africa – an Update*. The Organ Donor Foundation provides a range of statistics concerning donor organs, donor demographics and transplantations among other things. Etheredge, Turner and Khan (2014) present findings on their empirical

research regarding South African's attitudes towards organ donation. These reports in conjunction with others are used for their empirical findings.

There is adequate statistical and empirical data to answer normative questions concerning the practical implications of different systems of consent for organ donation in South Africa. Therefore, no need for novel empirical research is required to answer the research question. Consequently, this research report is purely normative.

I use Principlism as a framework to assess the organ donation systems². The principle of autonomy (making an informed decision about one's own medical treatment, strongly correlating with informed consent), non-maleficence (avoiding any intentional harm or risk of harm), beneficence (acting in the best interests of others) and justice (the fair distribution of medical treatment and limited resources) are used (Dhai and McQuoid-Mason, 2011). Beauchamp and Childress (2001) made the theory of Principlism popular and it is commonly used as a guide for ethical action in the medical industry. They argue that the four principles are sufficiently broad and thus are shared by most individuals irrespective of religion, culture and background. In addition, the principles encourage individual judgement yet provide guidance (Beauchamp and Childress, 2001).

Having framed key issues using Principlism, an argument based on Kant's deontology is used to show that a hybrid organ donation system of opt-in and mandated choice is a practical and an ethically superior system of organ donation in South Africa. Deontology focuses on duty, treating people with dignity and respecting autonomy (Dhai and McQuoid-Mason, 2011). Kantian deontology illustrates how mandated choice proves to be superior as it not only encourages people to adhere to the duty to save lives, but it also shows strong respect for human dignity,

² As seen by Dhai and McQuoid-Mason's definitions of non-maleficence and beneficence (page 14, 2011), these two principles are seen as different aspects of consequentialism. As such consequentialist approaches are subsumed under Principlism.

autonomous decision-making and not treating others “solely as a means but always as an end” (Dhai and McQuoid-Mason, 2011).

The rationale behind creating a hybrid system is as follows: I submit that unless the state can be highly confident that a person is literate, they cannot be sure the individual will be able to read, understand and accurately communicate (in writing) his decision on organ donation. I argue that applying mandated choice to those citizens who are not necessarily literate is unethical for the reason that the chances of an informed decision being made are lower. Thus, I propose they remain on the opt-in system. I claim that people who pay tax and and/or get driver's licences on the other hand have a much higher chance of understanding organ donation due to their high likelihood of literacy. In most cases, they are capable of reading what they are/are not consenting to. In the rarer cases where the applicant is illiterate, provision should be made for someone to read the document to them. Implementing mandated choice in South Africa should increase donor organs and stimulate more community discussion on the topic.

I begin my argument in Chapter 2 by describing the aspects within South Africa which play a part in influencing organ donation rates: legislature in place, religious and cultural climate, education levels and other factors. In Chapter 3 I argue that the positive aspects of the current system of opt-in organ donation include the fact that it results in few, if any, organs taken from deceased persons who did not want to donate their organs.

I argue that the negative features of South Africa's opt-in system are that it overlooks those who have no problem with donating their organs but have not documented or informed their next-of-kin of their wishes. Therefore, the system results in many mistaken non-donations which are just as unethical as mistaken donations (Gill, 2004). This is made worse by empirical findings which report that most South African's are willing to be organ donors (Etheredge, Turner and Khan, 2014). In instances where the deceased has not informed their next-of-kin of their organ

donation wishes, families are placed under additional stress to make a complicated decision at such a difficult time and will often not consent to the donation of their loved one's organs (Bird and Harris, 2010). Furthermore, I claim that low organ donation rates, high rates of preventable deaths and no development of a formal national organ donor list or a central standardisation board are among the problems with the current organ donation system in the country.

Following the analysis of the current South African organ donor structure, I evaluate the two main alternatives. In Chapter 4 I argue that opt-out organ donation has large potential to increase donation and save lives as it automatically includes those who are willing to donate but have not spoken to their next-of-kin about organ donation. Therefore, this reduces mistaken non-donations. Moreover, it allows for those against donating their organs to remove themselves from the list for whatever reason (Bird and Harris, 2010). However, Erin and Harris (1999) point out that a drawback of the opt-out system is that there is no explicit consent, although I argue that this is not appropriate as the 'non-interference' mode of autonomy is not applicable to cadaveric donation, the public may see this as ethically questionable which could interfere with the public's acceptance of the system. The opt-out system also requires a good public knowledge of organ donation, as well as the donation system implemented in the country. To obtain this there is a need for increased education on the topic which will be costly (Caplan, 1983).

In order to improve the system of organ donation in South Africa, whether it be by implementing a new system of organ donation or by improving on the current system, there will certainly be high costs involved. But this pales in comparison to the amount saved by the country, as treating patients with end stage organ failure is more expensive in the long run than replacing failed organs (Steyn, 2011).

Chapter 5 covers mandated choice; I maintain that mandated choice as a system for organ donation is favourable in that it increases organ donation and saves lives with strong consideration for autonomy. Moreover, it has the potential to be viewed favourably in the public eye. Due to this system requiring education on organ

donation, it also increases public awareness and family discussion on the matter (Rockloff and Hanley, 2014). The negative points include that it is highly admin intensive, costly to implement and educate the public, and that suitable informed consent is difficult to achieve with the current literacy levels in the country (Etheredge, Turner and Kahn, 2014).

Following the critical evaluation of the three systems of organ donation, I argue in Chapter 6 that mandated choice as an organ donation system in conjunction with opt-in in South Africa would be the most suitable. This is because it will increase donation (making it better than the current opt-in system, which I claim has been proven to be inadequate) and still displays respect for autonomy in both Gill's 'non-interference' and 'respect-for-wishes' models (making it better than the opt-out system ethically and in terms of potential public acceptance of the topic). Recommendations for the implementation of this system of organ donation will also be provided within this chapter. These include education and awareness drives, infrastructure improvement, government commitment and sufficient time for the amended system to be understood by the population. I conclude in Chapter 7 by summarising the key findings of this report.

Chapter 2: South Africa and Organ Donation

Organ donation in South Africa is becoming more topical as the population is slowly becoming more aware of the wonders of successful organ transplantation for individuals with organ failure. Worldwide, “transplantation is well recognised to be the most cost-effective therapy for many life threatening conditions involving end-stage organ failure” (Steyn, 2011). However, it has been a slow start and there is still a long way to go until the majority of South African citizens are fully conscious of and appreciate the benefits of organ donation.

In this chapter I analyse the multiple facets of the country which influence organ donation: the law, logistics and organisational limitations, religion and culture, unequal distribution of resources and South African education levels. This is essential in determining which organ donation system would best suit South Africa. The examination of topics such as the law, religion and the distribution of medical resources all impact the way in which the population views organ donation together with illuminating the country’s current shortfalls and areas requiring improvement.

2.1 Organ donation & the law

The Human Tissue Act was replaced by chapter 8 of the National Health Act (2003): Control of Use of Blood, Blood Products, Tissue and Gametes in Humans. The legislation covers the major points of concern regarding organ donation. This includes consent for organ donation, next-of-kin involvement, prohibition on the sale of such organs and persons permitted to handle donor organs. In this report the focus is on deceased donation, thus the sections below (within chapter 8) are of particular importance:

Section 62: ‘Donation of human bodies and tissue of deceased persons’

Section 63: ‘Human bodies, tissue, blood, blood products or gametes may be donated to prescribed institution or person’

Section 64: 'Purposes of donation of body, tissue, blood or blood products of deceased persons'

Section 65: 'Revocation of donation'

(National Health Act, 2003)

With reference to South Africa's legislation on consent for donating organs for transplantation, unless otherwise stated by the deceased prior to death in a formal, witnessed statement or written declaration, consent for organ donation may be provided by the "spouse, partner, major child, parent, guardian, major brother or major sister" (National Health Act, 2003, S.62(2)). For informed consent to be carried out, the person must have full knowledge, which includes knowing her "health status ... diagnostic procedures and treatment options ... benefits, risks, costs and consequences generally associated with each option ... right to refuse ... implications, risks, and obligations of such refusal" (National Health Act, 2003, S.6(2)).

Opt-in organ donation is the only system of organ donation that South Africa has ever used. However, "the current organ procurement method... as embodied in the *National Health Act*, is unsuccessful in procuring enough transplantable organs to satisfy the demand for them" (Labuschagne and Carstens, 2014).

The foundation of all the laws in the country is the Constitution, but with reference to organ donation and most other medical practice, the Bill of Rights provides the guiding values on which these laws are built (Labuschagne and Carstens, 2014). The limitation clause within the Constitution explains that in some situations a right may be limited by another right (Bill of Rights, 1996). These situations have to meet specific requirements in order for this limitation to be valid. Labuschagne and Carstens (2014) analyse a number of South African Constitutional rights most pertinent to organ donation and show how the current system of opt-in organ

donation does not uphold these rights as much as alternate systems potentially could. In what follows, I will examine the rights germane to organ donation.

2.1.1 Equality

The Constitutional right to equality states that “everyone is equal before the law and has the right to equal protection and benefit of the law” (Bill of Rights, 1996). This is particularly relevant in South Africa considering the multi-cultural nature of the nation as well as the country’s history of oppression during Apartheid. Similarly with regards to the uneven population split between the use of state vs private health care. The country’s opt-in organ donation system cannot provide enough donor organs to meet the need and the distribution of organs between state and private hospitals is not currently providing equal benefit to individuals. Thus, the Bill of Rights has been violated by the opt-in system when considering the right to equality (Labuschagne and Carstens, 2014).

2.1.2 Human Dignity

The Bill of Rights pronounces that “everyone has inherent dignity and the right to have their dignity respected and protected” (Bill of Rights, 1996). The use of the word *inherent* alludes to the idea that each person has intrinsic worth. This worth is not only realised through personal actions and pursuits, but also through interaction within the community: respect for human dignity results in communal benefit (Labuschagne and Carstens, 2014). The right to human dignity is closely linked to the right to life and it is also the basis of autonomy and informed consent, both of which are core values within the medical fraternity. When an organ donation system does not yield sufficient transplantable organs to substantially satisfy the demand it can be said that the system does not promote human dignity because quality of life is severely diminished for those in need of organs (Labuschagne and Carstens, 2014)³. This is the case in South Africa. “Opting-in denies patients their dignity” (Labuschagne and Carstens, 2014) because despite being fully aware of the

³ Labuschagne and Carstens (2014) make reference to the Constitutional Court’s incorporation of quality of life within the right to life.

shortage, when the National Health Act was being formulated the State did not try another donation system in an attempt to alleviate it.

2.1.3 Life

This right does not simply refer to the absence of death, the right to life incorporates personal experience and interaction within the community (correlating strongly with human dignity). Therefore, it does not apply, according to the right to life, when considering a person who is brain dead (Labuschagne and Carstens, 2014). In relation to the organ donation system in South Africa, “changing the current organ procurement system to a more effective one would ... promote and protect the right to life. Refusing to change ... results in directly denying individuals a chance of life” (Labuschagne and Carstens, 2014). Therefore, opt-in organ donation does not support the Constitutional right to life.

2.1.4 Freedom and Security of the Person

“Everyone has the right to freedom and security of the person... to bodily and psychological integrity, which includes the right ... to security in control over their body” (Bill of Rights, 1996). This relates back to human dignity and thus patient autonomy (and informed consent). Being able to make an informed decision regarding one’s own medical treatment is of the utmost importance as it strongly corresponds with ethical medical practice. With regards to familial consent to organ donation, which is central to opt-in in South Africa, the next-of-kin’s control over the body (donor organ) ceases at a point. However, this point has not yet been defined: is it as the organ is removed or only when it has been transplanted into the recipient? This is important to consider when revoking consent is discussed (Labuschagne and Carstens, 2014). The opt-in organ donation system used in South Africa does uphold the right to Freedom and Security of the Person, in that informed consent of the donor/ next-of-kin is required for cadaveric organ donation. However, it leaves room for mistaken non-donations which, as per Gill (2004), are just as unethical as mistaken donations.

2.1.6 Health Care

The right to health care is easily misinterpreted as it is not the individual's right to immediate relief. It is more about the State's duty to put in place systems and plans to meet the obligations it has to the public, as directed by the Constitution (Labuschagne and Carstens, 2014). As argued by Labuschagne and Carstens, organ donation is a clear example of how the State has failed to uphold this right. The severe organ shortage should have been better considered when The National Health Act was being formulated. I am in agreement with Labuschagne and Carstens that "the state has a duty to find alternative measures to alleviate the constant organ shortage, by replacing the current organ procurement system of opting-in with a more suitable method of organ procurement" (Labuschagne and Carstens, 2014).

2.2 Logistical and Organisational Limitations

In connection with the logistics involved in South Africa's opt-in organ donation, transplant coordinators are very important role players. They are responsible for the handling of donor organs, consultation with families of potential donors, arrangement for organ harvesting and organization of the transplant. With such an integral role to play it is shocking that as reported in April 2015 there were only "22 in a country of 52 million ... many provinces do not have coordinators available ...currently, there are 8 transplant coordinators employed by the state and 14 by the private sector" (Muller, 2015). The fact that the country has such a limited number of transplant coordinators results in the hospital staff (ICU nurses and doctors mainly) having to take on the responsibilities of the transplant coordinators. However, many have not been sufficiently trained to do so. Appropriate staff training is essential, it is not only the identification of potential donors and the procedures which need to be followed once a donor is secured, but very importantly these medical professionals need to be skilled in consulting with the next-of-kin to obtain consent (Randhawa, 2012). Many potential organ donor families are not being approached because of the lack of this specific training and thus organ donation is not occurring as much as it could, "medical personnel are often reluctant to approach families of brain dead patients" (Steyn, 2011).

As previously mentioned, there is no central body managing the standards, education levels, performance and overall effectiveness of these transplant coordinators, or the organ donation / transplantation system as a whole (Muller, Thomson and McCurdie, 2015). The logistical and organisational limitations described here most certainly restrain organ donation rates in the country. Therefore, this is certainly an area of much needed improvement which if worked on and bettered, could result in many more donor organs becoming available.⁴

As per the Organ Donor Foundation the number of solid organ transplants in South Africa decreased between the years 2009 – 2012 and increased in 2013, with these being the most recent public statistics available on the topic. The question needs to be addressed of what this general decline in numbers is due to; a lack of donor organs, lack of infrastructure, lack of professional skills or lack of enthusiasm from the health practitioner's side. It is widely agreed that the main factor is the shortage of donor organs (Steyn, 2011). This dilemma is experienced all over the world and different countries have tried different organ donor systems to increase the number of available donor organs. It has become apparent that when looking at the shortage in South Africa, a change needs to be made. Whether it be legislative, social or educational the organ donation and transplantation climate within the country is in decline and urgent action needs to be taken.

2.3 Religious and Cultural Influence

South Africa's 11 official languages display the country's high level of diversity. Not only language, but culture as well as religion in the country are extremely varied. The numerous belief systems and religious groups view organ donation differently and low organ donation rates in South Africa may be affiliated with these views. This possible association is backed by the argument that "religion plays a very important role in people's behaviour and thus affects how they think about organ transplants and their reaction to organ donation" (Slabbert, Mnyongani and Goolman, 2011). I will briefly address some of these views, namely Christianity, Islam, South African

⁴ McQuoid-Mason (2011) also discusses the need to establish a central body similar to the UK Human Tissue Authority, he states it should be independent yet funded by the government.

Traditional Beliefs and Hinduism's approach to organ donation. These particular groups were chosen for discussion due to their prevalence in South African society. It is important to remember that "most religious scriptures were written hundreds, if not thousands of years ago, before any consideration of organ transplantation. Consequently, any religious position on organ donation is subject to a religious scholar's interpretation" (Randhawa, 2012). Despite this medical advancement's novelty, none of the religions discussed here have an outright ban on organ donation.

2.3.1 Organ Donation and Christianity

Christianity is in itself diverse in that there are numerous denominations with varying outlooks and teachings. However, the overarching principle of altruism runs strongly through all Christian groupings, as does that of dignity and respect for others. Acts of altruism, including organ donation, are promoted by Christianity on condition that the dignity of donor and recipient are not dishonoured (Slabbert, Mnyongani and Goolman, 2011). This positive assessment of organ donation is poised against a belief which many Christians hold, that death is not final and reincarnation is inevitable. Reincarnation would require the body being complete with all organs, limbs etc. Thus, despite altruistic encouragement, reincarnation inhibits some Christians' desire to donate their organs as they are afraid of being reincarnated without being physically whole (Slabbert, Mnyongani and Goolman, 2011).

2.3.2 Organ Donation and Islam

Islam's interpretation of their holy scripture (the Qur'an) (Ebrahim, 2008) is more limiting than Christianity's when it comes to organ donation, although the topic is not directly mentioned (Slabbert, Mnyongani and Goolman, 2011). Strict religious interpretations of the Qur'an mainly prohibit the removal of organs from the deceased. However, Shari'ah law sanctions organ donation with the terms of donation being very strict: "it (organ donation) must be the *only* way of treating the ailment; the success of the transplantation must be highly probable; the donor or the family must have consented to it; and if possible transplantation must be between Muslims only" (Slabbert, Mnyongani and Goolman, 2011). It is clear to see that these stringent restrictions imposed would not assist in the attempt to increase organ

donation in South Africa. Nevertheless, it is always important to keep the Constitutional right to freedom of religion, belief and opinion in mind.

2.3.3 Organ Donation and South African Traditional Beliefs

Traditional Belief systems in South Africa are varied to an extent but it seems that the focus on ancestors and spirituality is a common thread; “the concept of ancestors or *izinyanya* refers to a belief that, after death, one joins the spiritual world that works in collaboration with and in immediate subrogation to God over humankind” (Kometsi and Louw, 1999). Kometsi and Louw (1999) mention that if the deceased transitions to the spiritual world and has had his organs removed, it may cause dissatisfaction of the ancestors. This is causing suspicion in relation to organ donation for those who hold Traditional Beliefs (Kometsi and Louw, 1999). Due to organ donation being a relatively new development when compared to how long standing these Traditional Beliefs are, it is no surprise that there are no traditional views specifically relating to the donation of organs⁵. Accordingly, in making decisions regarding the donation of organs from a loved one, South Africans with Traditional Beliefs tend to need more time for family consultation before a decision is made. Transplant coordinators have expressed this issue as impeding the quick action which organ donation requires to be successful (Kometsi and Louw, 1999).⁶

2.3.4 Organ Donation and Hinduism

Hinduism is largely practiced among Indian South Africans. It is described as a “way of life” as there is no single scripture, founder or set of defined teachings (BBC, 2009). Hinduism is not opposed to organ donation as there is little focus on the physical body, instead it is the soul that is eternal (New Mexico Donor Services, 2017). However, as Slabbert and Mnyongani (2011) point out, in practice religious

⁵ From my research I cannot find any objections to the use of donor organs in holders of Traditional Beliefs who need lifesaving organ transplants.

⁶ The use of human body parts for muti is illegal in South Africa and only practiced by a small handful of people. The body parts are used as a form of medicine to cure a specific problem, and are usually removed while the person is still alive (Labuschagne, 2004). In contrast to organ donation, the person whose organs are used for muti is a victim of murder.

Hindu people burn the intact body of their deceased loved one, therefore deceased donation is not often encouraged.

2.3. Race

Due to South Africa's history of racial oppression the dissimilarity in racial opinions on organ donation are often considered and documented in research on organ donation in the country. Years ago when Apartheid was still in force the debate regarding interracial organ transplants was heated. Dr Barnard not only performed the first successful heart transplant in the world but he also insisted that the transplant centre at Groote Schuur (South Africa) be non-racial (Niewijk, 1999).

Etheredge, Turner and Kahn (2014) published the results of their study on South African attitudes to organ donation, by recreating a study previously done in 1993. The paper compares the opinions and attitudes of white and black South Africans to organ donation as “a large body of literature suggests that attitudes towards organ donation differ according to ethnic classification” (Etheredge, Turner and Kahn, 2014). Their results suggest that black people in South Africa are less likely to consent to organ donation than white South Africans. There is speculation that this may be due to differing education levels between the two groups, with white South Africans generally being better informed and more educated due to the long lasting after effects of Apartheid (Etheredge, Turner and Kahn, 2014). It could also be influenced by the fact that many black South Africans hold Traditional Beliefs, whereas much fewer white citizens share these beliefs. The study clearly suggests some level of correlation between race and religious beliefs.

2.4 Unequal Distribution of Resources, and Low Education

Another pertinent issue within the South African organ transplant discussion is that of the lack of sufficient medical resources and the distribution of such resources. The majority of the population has to use public hospitals if they require medical treatment. However, the supply of medical equipment, trained medical professionals and medication is just not enough to meet the rising demand, particularly in the public health sector. Those who can afford to go to private health care facilities do so but this is a fraction of the population.

With major public health problems such as HIV, expenditure on 'extravagant' procedures like organ transplantation have come under fire. As pointed out by Niewjk, "heart transplantation in particular has come under attack for its high costs and elitist bent, and has become a metaphor for the misallocation of resources" (Niewjk, 1999). In addition, there are many costs associated with receiving a donor organ which the State will not cover, including travel to the transplant hospital (bearing in mind that there is not an abundance of such centres in South Africa), temporary accommodation while away from home, and loss of income while not working during the recovery time (Niewjk, 1999). These additional costs added to the ratio of transplants done in public vs private hospitals all result in seemingly "insurmountable barriers for an unskilled worker earning average wages" (Niewjk, 1999). This raises the question of whether or not it is ethical to encourage poorer people to donate their organs and those of their loved ones, when they would most likely never receive an organ should they need one due to their economic status not allowing for them to afford private health care (Niewjk, 1999). Niewjk points out that "governments are often supportive of this high-profile, high-technology activity because heart transplantation is a showpiece – a highly visible sign of capability to integrate modern ideas and techniques, whether the integration of heart transplantation is done responsibly or not" (Niewjk, 1999).

Education levels in South Africa are concerningly low. Consequentially most people are incorrectly informed, if at all, about organ donation and other specialised medical procedures. The understanding of brain death is an analogous example of this as it is of paramount importance when a family is making the decision whether or not to donate their loved one's organs. Kumar describes brain death as "a state of cessation of cerebral function wherein the proximate cause is known and considered irreversible" (2016). The brain dead individual can and ideally should be kept on life support in order to keep the organs intact before donation. One of the notable problems with this is that most families struggle to understand how their loved one is dead (and viable for organ donation) but their heart is still beating and they are still breathing (albeit with machines). This is because "traditional concepts of life and death are totally inadequate to describe the new situations created by intensive care

medicine” (Bellomo and Zamperetti, 2007). This has proven to similarly be a problem in terms of religions’ approval of organ donation, “for some orthodox Catholics and Jews, the definition of brain-stem death remains incompatible with their faith, although they would support donation from a non-heart beating donor” (Randhawa, 2012). This issue highlights the importance of educating the public and gaining religious leaders’ support in informing the community and encouraging organ donation through education. This is key in increasing organ donation rates in South Africa.

South Africa’s wealth of diverse people with varying beliefs and feelings towards organ donation requires a carefully considered approach to modifying the organ donation system . In Chapter 3 I will analyse opt-in organ donation using the four principles of Principlism.

Chapter 3: Critical Evaluation of Opt-In Organ Donation

After having discussed the various features of the South African nation in Chapter 2, in this chapter I will be evaluating the system currently used in the country – opt-in organ donation.

As previously mentioned opt-in organ donation is altruistic donation of organs upon death with the intention of those organs being used to save other people's lives through transplantation. The way in which a South African citizen would 'opt-in' if they so desired is by noting their wish to be an organ donor in a will / witnessed oral or written statement (National Health Act, 2003, S.62(1)). Alternatively, and more commonly, this decision would (hopefully) have been discussed with the next-of-kin who would know the deceased's wishes upon death, and be in the position to consent to the donation of these organs. However, studies suggest that "a significant number of potential donors were not referred to transplant co-ordinators for discussion with the family" (Muller, 2013). This alludes to the problem of doctors and nurses not being well enough informed or trained on bringing up organ donation with the family of the deceased⁷. This easily resulting in non-donations where consent could have been obtained if sought after. In addition to this, the aims of the transplant coordinator and that of the nurse (who should be informing transplant coordinators of potential donors) are completely different, adding another potential barrier to the increase of donor organs: "the transplant co-ordinator has a termination focus, in contrast to the intensive care nurse that needs to sustain or restore life" (Naude, Cur, Nel and Uys, 2002).

⁷ The establishment of a central overseeing body would address this requirement for professional education and training.

The Organ Donor Foundation encourages individuals to sign up to be an organ donor which promotes discussion within families and communities, consequently increasing awareness. However, there is no central organ donor registry which can be accessed and utilised by the medical community on a national level. This is largely due to the lack of accessible infrastructure required for this sort of information to be quickly and easily available all around the country. It is also due to the nonexistence of a central governing body which should be in place to monitor overall donation and transplantation statistics, train and educate hospital staff, standardise organ procurement methods (required referrals etc.), recruit and regulate transplant coordinators (Muller, Thomson and McCurdie, 2015). McQuoid-Mason (2011) suggests that a central body in South Africa should be composed of government representatives, medical professionals as well as ordinary people. It “should perform the duties and functions of the present inspectors of anatomy and human tissue inspectors” (McQuoid-Mason, 2011).

In analysing South Africa's opt-in organ donation system from an ethical perspective, I will use the four principles of autonomy, non-maleficence, beneficence and justice.

3.1 Autonomy

In terms of autonomy there is debate about whether (and the extent to which) the autonomous will of the deceased should be respected. Michael Gill (2004) describes two forms of respect for autonomy: the non-interference model of autonomy and the respect for wishes model. The non-interference model concerns autonomy in the ordinary sense as requiring that a patient explicitly consent to any medical procedure. This model is applicable to the treatment of any competent person. By contrast Gill (2004) argues that the respect for wishes model of autonomy is applicable to the treatment of deceased or brain dead persons where wishes are not and cannot be known. This type of autonomy instructs that we ought to “treat her body in the way that she most likely wanted it to be treated” (Gill, 2004). Similarly, Erin and Harris’ (1999) argue that autonomy can be applied to the deceased in a different way than to the living – I am in agreement with these arguments. For living competent patients, I agree that explicit consent needs to be gained before any procedure, but for cadavers, when their organ donor wishes are not known I argue that we ought to follow the respect for wishes model proposed by Gill (2004). Discussion on this

question undergirds the evaluation of different organ donation systems in terms of the principle of autonomy.

As this research report is exclusively concerned with deceased donation, I will be focusing mainly on the respect for wishes model of autonomy. A large portion of papers on organ donation do not recognise the two forms and only see autonomy as the right for patients to have their informed decisions respected in terms of their medical treatment. Thus, one of opt-in's largest pros is often said to be that it displays strong respect for patient autonomy because people actively need to make their wish to be a donor known. However, Gill (2004) argues that this fails to recognise that mistaken non-donations are just as unethical as mistaken donations.

With the current system of organ donation there is a "default assumption that individuals prefer *not* to donate their organs for transplantation" (Gill, 2004). Etheredge, Turner and Kahn (2013) provide statistics concerning the feelings of South Africans towards organ donation. Taking into consideration the severe organ shortage in South Africa one may be led to believe that the population does not support organ donation, which would be in line with the current system's presumption that most people do not want to donate their organs. However, from their report "the majority of respondents held positive views about organ donation. Most (70-91%) appeared willing to potentially donate their own organs ... Many (67-83%) also expressed willingness to donate the organs of a relative" (Etheredge, Turner and Kahn, 2014). Given these findings, why is there such a notable gap in the country between supply of donor organs and demand for them? Education and absence of exposure to the topic of organ donation perhaps, or the previously mentioned dilemma of the lack of a central donor list and sufficient infrastructure, or it could be that the system used is wholly inappropriate.

Given that the opt-in system presumes most people do not want to be organ donors, it seems logical that the data on public opinion on the matter should support this assumption. It does not, as noted above. Veatch and Pitt (1995), among others, argue that opt-in is still the best system because although most people may want to

donate their organs, it is ethically more favourable to have more mistaken non-donations than mistaken donations. This is strongly contested by Gill (2004) who argues that both harvesting organs from a person who did not want to be an organ donor, AND not removing the organs of an individual who did want to be an organ donor are correspondingly as bad, because “both kinds of mistakes violate the wishes of the decedents, and so they are both morally unfortunate in the same way” (Gill, 2004). Moreover, as discussed in a moment opt-out also results in greater harm.

It is clear to see from the shortage of donor organs in South Africa that opt-in organ donation is not working for the country. In addition to this, the system does not stand up to the principle of autonomy which is exceptionally important in the medical field. It is closely linked to the right to human dignity which is said to be one of the cornerstones of the South African Constitution (Labuschagne and Carstens, 2014).

3.2 Non-maleficence

The principle of non-maleficence in medicine instructs medical professionals not to cause any harm to their patients and to avoid situations which unnecessarily increase the risk of patient harm (Dhai and McQuoid-Mason, 2011). Harm can be physical and/ or psychologic (Jonas, 2005). The avoidance of harm cannot relate to a dead body/ donor, as per Jonas’ definition of harm above, as physical and psychological harm cannot be inflicted upon someone who is no longer alive. Some may say that not acting per the deceased’s wishes after their death can cause harm, however this is not harm to the deceased as per the above definition. Moreover, it is an issue which is more applicable to the principle of autonomy than that of non-maleficence.

One of the aspects of deceased donation (from an organ donation aspect) which could cause harm, is the stress placed on the next-of-kin when they are asked for consent for the donation of organs from their deceased loved one. Due to timing and circumstances, “factors ordinarily held to be absolutely necessary for any choice to be informed and free... are often absent... the capacity of bereaved family members

to comprehend information under such circumstances is highly questionable” (Caplan, 1983).

A broader set of harms to be considered are those associated with using a system which does not aid in the increase of donor organs. By opt-in’s failure to provide sufficient organs, the system is not successful in preventing harm to those in need of organs. These individuals will have to endure illness, costly treatments, stress associated with their illness and likelihood of death. In addition, the families of those requiring organ transplants need to deal with the anxiety of having a very ill loved one. This stress encompasses both emotional and financial aspects. Lastly, the State will also feel the impact of treating people with end stage organ failure. As previously mentioned the costs associated with treating organ failure are much higher when organ transplantation is not utilised (Cotter, 2011). This has a knock-on effect as the funds used here could have been used elsewhere within the medical sector.

I argue that the focus of non-maleficence regarding deceased organ donation relates to the next-of-kin’s experience as well as the broader harms created by the donor organ shortage, as mentioned above. Opt-in organ donation does not promote this principle as family members are forced to make a very difficult choice regarding consent, which can almost never be adequately informed due to the system of organ donation and current awareness levels in South Africa. Citizens are also not protected by the system from harms instigated by the unavailability of life saving organs. Thus, the system undermines not only the principle of non-maleficence but also that of autonomy through informed consent, “we ask the wrong persons, at the worst possible times, what they should never have been asked at all” (Cohen, 1992).

3.3 Beneficence

The principle of beneficence, although referred to often in medical ethics, is broadly applicable to all aspects of life, especially within a community:

“The term *beneficence* connotes acts of mercy, kindness, and charity. It is suggestive of altruism, love, humanity, and promoting the good of others. In ordinary language, the notion is broad, but it is understood even more broadly in ethical theory to include effectively all forms of action intended to benefit or promote the good of other persons” (Beauchamp, 2008).

In deceased organ donation, the principle of beneficence is pertinent just before the donor dies and applies not only to the potential donor, but also to their family who will likely be making the decision on organ donation. Family members have raised concerns about their loved one not being given sufficient medical care or attention which could save their lives (Kometsi and Louw, 1999). The idea that the hospital staff would rather they die and be able to donate organs to save others' lives. This is troublesome, not only will these feelings negatively influence familial consent to organ donation, but of course it will cause distress to the family. It highlights the need for training of hospital staff so that they can accurately and sufficiently explain the circumstances to the family members (Kometsi and Louw, 1999). Families should never feel that their loved one is a lesser priority than the life of another individual.

The opt-in system of organ donation implemented in South Africa is essentially a system based on altruism. An individual who wants to be an organ donor upon death is doing so completely free of any incentive or self-interest, the only benefit gained from donating organs is to an unknown stranger. Thus in this regard the opt-in system does uphold the principle of beneficence, as it promotes altruistic behaviour of South African citizens. It is better communication between medical professionals and family members which needs to be improved upon. However, Beneficence should also be viewed in terms of the organ donation system as a whole. Is the system allowing for beneficence to strive? The shortage of donor organs in the country limits beneficence as there are not enough organs to give to those in need.

3.4 Justice

In ethics, justice refers primarily to the just and fair distribution of resources, benefits and burdens (Dhai and McQuoid-Mason, 2011). The most obvious limited resource in

the process of organ donation and transplantation around the world is donor organs, South Africa is no exception to this. The shortage is of growing concern and ample reason to re-evaluate the system of organ donation in place within the country: As per the Organ Donor Foundation (2016) there were 566 organ and cornea transplantations done in 2013, but the waiting list for transplants is approximately 4 300 people.

However, the shortage of donor organs is not the only inadequate resource when it comes to organ donation. There is a limited number of appropriately trained health care professionals, transplant coordinators, transplantation hospitals, a lack of infrastructure and an insufficiency of post-surgery anti-rejection medication and treatment (Steyn, 2011). Given the above, together with the social and economic environment in the country it seems logical that a discussion on distributive justice within medicine must focus on public vs private allocation of resources. It is well known that the vast majority of South Africans use public health care, which is government funded. With this in mind one may assume the distribution should also be skewed towards the public sector.

The distribution of transplant coordinators between state and private is 8 to 14 (Muller, 2015). Therefore, despite most South Africans using state medical care most transplant coordinators are employed in the private sector. This may be due to the salary discrepancy between the two or it could be that there are no more than 8 positions available for state transplant coordinators. Whatever the reason, this distribution of essential professionals in the field of organ donation and transplantation clearly does not uphold the principle of justice.

There are 18 hospitals in South Africa which perform organ transplantation, with only 8 of them being state hospitals, distributed between merely 4 of the 9 South African Provinces – Free State, Western Cape, Kwa Zulu Natal and Gauteng (The Organ Donor Foundation, 2016). Again unequal distribution of resources is seen here on various levels - private vs state, and between provinces. It is obvious that the private

sector usually has more funding available to it for highly advanced procedures such as organ donation. This is because many individuals using private hospitals have medical aid which pays for their treatment, or they have enough money to fund it themselves. State hospitals rely on government funding and a minimal (if any) contribution by the patient. As previously mentioned there is some resistance against the government spending money on advanced procedures, including organ transplantation. That money could be used for basic health care which in the long run is said to reduce the incidence of organ failure and thus the need for organ transplantation (Niewijk, 1999). Nevertheless, the principle of justice is not being upheld.

The question of whether or not donor organs are being distributed fairly is of concern. However, it is more related to transplantation than to donation of organs which is the focus of this paper. Nevertheless, I will briefly touch on the issue. Due to the majority of the population utilizing government run hospitals, it seems logical that this same proportion would apply to the requirement of donor organs. As mentioned above there are far more private hospitals where organ transplants can take place. Steyn (2011) reported on statistics of organ transplants done in 2010 in South Africa, “63% of all transplants (217 of 342) were performed in private hospitals on funded patients” (Steyn, 2011). Again displaying the inadequate dispersal of vital resources between the public and private centre. And therefore, the principle of justice not being defended.

Hence the four principles of autonomy, non-maleficence, beneficence and justice are not upheld by the opt-in system of organ donation utilised in South Africa, meaning that it is not ethical nor is it practically appropriate to meet the needs of the country. Consequently, a change is imperative.

In Chapter 4 I will evaluate the opt-out alternative to organ donation to determine how the current system failure can be amended in South African organ donation.

Chapter 4: Critical Evaluation of Opt-Out Organ Donation

Following on from the conclusion reached in Chapter 3 that South Africa's opt-in system of organ donation is not successful and thus needs to be amended/ replaced, I will assess alternative systems. Chapter 4 uses Principlism to evaluate opt-out organ donation with the aim of determining its appropriateness within the South African context.

Opt-out organ donation is sometimes referred to as presumed consent. It essentially presumes consent of all citizens for organ donation, unless the person has removed themselves from the organ donor list (Griffith and Tengnah, 2009). This frequently discussed alternative to the opt-in organ donation system stimulates strong debate among those in the field, mainly because it does not require explicit consent. However, there are instances of laws put into place which are designed to specifically prevent individual harms and promote common good, where citizens have no choice in complying. An example is the requirement of seatbelts. Wearing a seatbelt in a vehicle is required by law in South Africa. This is to guard the safety of an individual in the event of a car accident. It is for the greater good and individual autonomy is overridden (Cotter, 2011).

The same principle could apply to deceased donor organ donation systems. The deceased has no use for the organs anymore and these organs are not property which can be given to a family member to keep/ use (Erin and Harris, 1999). So, the default of "donor" in an organ donation system has the potential to save lives and thus encourage common good, through "think(ing) of cadaver donation ... as a duty the dead owe to the living, which costs them little or nothing to pay and which does huge amounts of good" (Erin and Harris, 1999).

A distinction needs to be made between the soft and hard systems of presumed consent; a soft system takes greater consideration of the next-of-kin's wishes and input. Whereas a hard system of presumed consent relies only on the deceased's wishes which would have had to have been registered before death. Failing this the deceased's organs will be used for transplantation should they be viable, in spite of family wishes (Griffith and Tegnah, 2009). Using Principlism, opt-out organ donation is assessed with respect to the ethical acceptability of the system within a South African context.

4.1 Autonomy

The principle of autonomy is usually the base on which most arguments against opt-out organ donation are made. Saunders supports opt-out organ donation, using the argument that if inaction is unethical then obtaining consent from the individual before this action can be done is irrelevant (Saunders, 2010). Rippon (2012) by contrast outlines how an opt-out system of organ donation may be viewed negatively by the public, "it makes an illicit presumption that there is a state right to distribute our body parts as they see fit... may undermine public confidence in the transplant system... producing a paradoxical decline in organ availability" (Rippon, 2012).

In the context of autonomy as Gill (2004) defines it, the respect for wishes model which applies to the deceased is not in opposition to opt-out organ donation at all. Gill (2004) argues in favour of opt-out organ donation using the "fewer mistakes claim". This is where the morality of removing a person's organs when they did not want to be an organ donor, and that of not removing organs from a person who did want to be a donor are ethically just as bad (Gill, 2004). This is because the action goes against their wishes in both instances and conflicts with personal autonomy and consent (Gill, 2004). Thus, according to Gill, the system of organ donation which is most ethical is that which results in fewer errors. He believes this to be opt-out organ donation, because "a person who does not want to donate is more likely to opt out under a system of presumed consent ... most of those opposed to organ transplantation have conspicuous religious or moral objections ... (they) are unlikely to neglect to opt out" (Gill, 2004). Assuming his argument stands, in conjunction with

the empirical evidence supporting the positive views that South Africans hold regarding organ donation, opt-out organ donation does seem to be ethically sound.

In South Africa most people are willing to donate their organs and this is supported by empirical findings (Etheredge, Turner and Kahn, 2014). This can be seen as an indication that using an organ donation system that presumes most people want to be organ donors is more accurate than one which presumes that people do not. However, it should be kept in mind that the level of education and awareness in the country certainly comes into play with regards to trends in consent; “consent rates in the private sector, where the higher socio-economic groups are situated, are much better than in the state sector” (Muller, 2013). Thus, despite the majority of people not having a problem with donating their organs, the problematic characteristic of the general South African population is the low education level.

The organ donation system in any country cannot change to opt-out unless it becomes widely understood what this means, how a person may opt-out and the implications of taking no action. It is argued that ensuring a sufficient level of education and awareness on the topic is not feasible in South Africa presently. “It is currently unlikely to be possible to disseminate sufficient information to constitute an ‘informed’ refusal owing to communication limitations posed by language and literacy barriers as well as access to information” (Etheredge, Turner and Kahn, 2014). However, the South African population is in great need of education on organ donation regardless of the system implemented. Therefore, I do not see this as a severely limiting factor. Nevertheless, the risk of the public forming negative views on organ donation due to the perception of the government taking organs as they please is a real threat to organ donation rates. A system of opt-out organ donation in South Africa would not presently be capable of upholding the principle of autonomy, making it an unethical organ donation system to implement in this country at this time (Etheredge, Turner and Kahn, 2014).

4.2 Non-maleficence

In considering the opt-out system of organ donation, the harms which may arise again relate to the next-of-kin, but also the country's organ donation and transplantation community in its entirety. Brazil's experience in changing the organ donation system from opt-in to opt-out was not good. There was "a lack of trust in the system caused by a concern that organs would be removed before patients were clinically dead and a failure to put in place a system to allow people to object to donation whilst alive" (Griffith and Tegnah, 2009). This reveals the potential of the opt-out system to reduce organ donation rates in a country due to public concern surrounding organ donation and presumed consent.

It also indicates the potential stress inflicted on family members should they not fully understand the system. And again, the issue arises of an organ donation system not yielding enough donor organs generates wider harms which impact many people (see Chapter 3.2). Some would die as they would not receive a lifesaving organ due to a further decrease in the availability of donor organs, and more would be affected by their loved ones' deaths.

For a second time the issue of low education, literacy and awareness on the topic of organ donation within South Africa becomes prominent when considering opt-out organ donation. The more people are aware of brain death and the process of organ donation the better. Thus, within the current environment of low education and literacy within South Africa, not to mention the lack of infrastructure available to allow for a quick and easily accessible list of non-donors, the system of opt-out organ donation would not support the principle of non-maleficence. Therefore, it makes opt-out organ donation an unethical, impractical and unacceptable organ donation system to implement in South Africa.

4.3 Beneficence

Beneficence in this context maintains that the system of organ donation utilized in a country should provide a suitable environment for people to always act in a manner

that promotes the best interests of others, whether this be the healthcare professionals, patients, donors or next-of-kin. Griffith and Tengnah (2009) discuss the United Kingdom's Department of Health's assessment of presumed consent as an alternative system of organ donation to the opt-in system employed in the United Kingdom. They claim "as well as distracting from the need to improve coordination it would undermine the concept of donation as a gift, erode trust in NHS professionals and the government, and negatively impact on organ donation numbers" (Griffith and Tengnah, 2009).

The notion of organ donation as a gift (altruistic donation as endorsed in opt-in organ donation) strongly relates to the principle of beneficence from the donor's standpoint. And opt-out organ donation does not encourage altruistic thinking as everyone is already a donor by default. However, from the viewpoint of the healthcare professionals, beneficence is upheld more by opt-out organ donation than it is by opt-in organ donation. This is because it would result in fewer mistaken donations than opt-in results in because of mistaken non-donations (according to empirical research as previously discussed). These mistaken organ removals/ non-removals are equally as harmful and unethical (Gill, 2004). Finally, the notion that opt-out would potentially reduce the already low levels of donor organs and would not promote anyone's best interests, does not support the principle of beneficence.

Therefore, opt-out organ donation does not promote altruistic behaviour from the individual when it comes to organ donation, and the system has the potential to reduce donor organ numbers even further. However, the system results in more good being done because of the claims that there would be fewer mistakes (Gill, 2004).

4.4 Justice

The equal distribution of limited resources is argued by the proponents for opt-out organ donation who argue that it will improve the system. Cohen argues that "a system in which consent is presumed is not merely expedient or advantageous; it is also just. Such a system is good because it maximises benefits for all concerned"

(Cohen, 1992). This argument is based on the notion that opt-out organ donation increases the amount of donor organs available. This is a product of “organ donor” being the default status of all individuals within the population. Having a system where “donor” is the default will be advantageous because “many people who want to donate their organs do not leave indications of their desires that are clear enough to overcome the current system’s initial presumption against removing organs for transplantation” (Gill, 2004). Should these arguments be accurate in their claims, the amount of available donor organs will increase in an opt-out system and thus provide an improved supply of these currently limited resources, allowing more people to receive organs. However, there are counter arguments which state that opt-out organ donation will have the opposite effect and result in decreased donor rates because of a lack of trust created (Griffith and Tengnah, 2009).

Nevertheless, the increase or decrease in the supply of donor organs does not fully address the issue of fair distribution of resources, which is the focal point of the principle of justice. Yet, the distribution of these organs is not of significance in this report as it is mainly focused on the donation rather than transplantation side of the process. Resources such as medical professionals, hospitals and other infrastructure required for the smooth running of organ donation need to be improved upon no matter the organ donation system. Thus, it cannot be said that implementing a system of opt-out organ donation will have a positive or negative effect on the equal and just distribution of medical resources (aside from supply of donor organs), because the improvement required in terms of better infrastructure remains an obstacle .

Consequently, determining whether opt-out organ donation is ethically appropriate in South Africa in terms of the principle of justice is strongly reliant on whether the system increases the amount of available donor organs. I agree with the arguments that support opt-out organ donation’s positive impact on the supply of donor organs. It makes sense that many organs are not donated where the deceased was either indifferent or wanted to have their organs harvested, simply due to the population’s default status as non-donor in South Africa’s opt-in system. The way the system

frames organ donation is very important as it has the potential to significantly impact on the supply of available organs, this is because “decisions are constructed in response to the question, and therefore influenced by the form of the question” (Johnson and Goldstein, 2004). Having a default of “donor”, as it is with opt-out organ donation, influences the individual in a positive way. Framing organ donation in a way which encourages donation and as mentioned above is claimed to increase organ donation rates: “The results suggest that promoting organ donation as the default option may improve rates of public acceptance for organ donations and consequently save lives” (Rockloff and Hanley, 2014). The principle of justice is then upheld by the opt-out system, on the premise that it increases the rates of organ donation.

In conclusion, opt-out organ donation is opposed by the principles of autonomy and non-maleficence I argue that when it comes to the practicality of implementing an opt-out system it would be very difficult if not impossible at present. This is largely due to the difficulty faced in achieving sufficient awareness. This leaves opt-out organ donation not only practically unsuitable but also ethically problematic as an alternative option for the system of organ donation in South Africa.

In the chapter to come the third and final organ donation system will be evaluated, mandated choice. Following this a conclusion can be drawn on which system is most ethically and practically suited to South Africa.

Chapter 5: Critical Evaluation of Mandated Choice

The opt-in and opt-out organ donation systems have been assessed, and both have been deemed less than ideal for South Africa's improvement on organ donation rates. Chapter 5 focuses on the third option for organ donation reform in the country. Again, the four principles of autonomy, non-maleficence, beneficence and justice are used to gauge this method of organ procurement.

Mandated choice is the third major system of organ donation which is becoming a more frequently considered alternative to opt-in. The system is described by Caplan as follows; "every citizen would be asked to indicate his or her willingness to participate in organ donation ... by means of a mandatory check-off on applications for a driver's licence ... or on tax returns" (Caplan, 1984). The system usually provides individuals with various options from which they are required to select one: donor, non-donor or family decision at the time. A premeditated decision on the specific organs she would be willing to donate, should she choose to be a donor, is also made available by mandated choice (Griffith and Tengnah, 2009).

The system aids in encouraging people to think and talk about organ donation, even in the case of opting for next-of-kin to decide on organ donation. The awareness in addition to community conversations around organ donation which will be inspired by the question asked by mandated choice could potentially be very beneficial in increasing organ donation rates. Therefore, awareness on the topic will become more prominent and result in more families knowing what their loved one would want if they were to die and be a viable organ donor. This is in conjunction with making people think about how they feel about the possibility of donating their own organs.

Using the four values of Principlism, the system of mandated choice is evaluated:

5.1 Autonomy

Informed consent is closely linked to the principle of autonomy, as previously discussed. In order for people to make an informed decision, there needs to be a complete understanding of the topic. To make an informed decision on organ donation, the individual must understand what organ donation is and therefore what she is/ is not consenting to in a system of mandated choice (as discussed in Chapter 2.1). In addition, she needs to know that she has the right to change her mind and organ donor status at any point, and how to do so. Therefore, to ensure autonomy is respected the State should encourage this understanding as much as possible. If full understanding is not accomplished, then informed consent and autonomy are not being respected and this makes the system unethical. Should nationwide comprehension on organ donation be attained, the system would be highly ethical in terms of the principle of autonomy; “mandated choice would promote autonomy as it would ensure that a person’s preferences after death would be respected” (Griffith and Tegnah, 2009).

Mandated choice promotes informed consent because it encourages discussion on the topic of organ donation within families and communities. In addition, the targeting of those who have a high likelihood of literacy increases the chances of individuals reading and understanding the organ donation insert of the driver’s licence/ tax return form (in addition to extensive awareness campaigns), making it highly probable that an informed decision will be made. As mentioned previously, in cases where the applicant is illiterate, provision should be made for someone to read the document to them.

Forcing individuals to make the decision on their own organ donation at a time where they are not yet dying or leaving it up to their families to decide would be beneficial as it allows for an environment which is far more appropriate for serious decision-making (Cotter, 2011). As mentioned, currently in South Africa’s opt-in organ donation system, the next-of-kin is asked to consent to organ donation at a terrible time in their lives when their loved one is about to/ has just died, usually at an unexpected time “:To contemplate their feelings about organ donation in advance of

a life-or-death situation, mandated choice makes it more likely that an individual will make a rational decision that is consistent with that individual's personal, moral and religious beliefs" (Cotter, 2011). Thus, this system upholds the criteria of informed consent set out by the National Health Act (detailed in Chapter 2.1) and thus, the principle of autonomy.

The organ donation section of these forms should not merely ask the reader to select one of the three options (donor, non-donor or family decision), and which organs the individual is willing to donate should she opt to be a donor. It first needs to provide some meaningful information on the system of organ donation and how to go about changing donor status on the donor registry if needed at a later stage (Cotter, 2011). This is where it becomes obvious that participant literacy is important for the system to abide by informed consent. Increased community education on organ donation is certainly a requirement for the success of mandated choice, to make people largely aware of the system and how it works. The information provided on the driver's licence/ tax return form needs to summarise the important points and provide contact details should more information be required. It also needs to provide the option of assistance in reading the insert, in the case of the applicant being illiterate.

However, as Gill (2004) mentions there is potential for this system to fail to uphold informed consent and autonomy because if uninformed people were forced to decide on organ donation, they may hold false understanding/ beliefs which could influence their decision, "her choice, as a result, will be ... morally tainted" (Gill,2004). Thus, the way in which this risk can be reduced is through widespread education and awareness campaigns, bringing organ donation knowledge into the community.

One of the main objections to mandated choice is that some believe the system to be coercive as it forces people to make a decision (Cotter, 2011). However, it does not force them to make a particular decision as "mandated choice allows for more individual autonomy than any other system of consent for organ donation. This is because an individual's wishes will become legally binding" (Cotter, 2011).

Consequently, I argue that mandated choice upholds informed consent if done properly and therefore the principle of autonomy, making it an ethically sound system for organ procurement in terms of autonomy.

5.2 Non-maleficence

The organ donation system of mandated choice is seen to support the principle of non-maleficence because it is based on the wishes of the donor herself. This removes the potential for mistaken donation/ mistaken non-donation through acting in a way in which the deceased would be opposed to, as "under mandated choice we would not need to presume anything at all" (Gill, 2004). Aside from respecting the wishes of the deceased, the system promotes non-maleficence through sparing the next-of-kin further stress at the time of their loved one's death. In a system where families are asked for consent, they "are left to speculate about the decedent's wishes and must decide whether to donate the decedent's organs at an extraordinarily difficult time" (Cotter, 2011). Mandated choice removes this stress from next-of-kin, unless the deceased has chosen the 'family choice' option.

However, some argue that the system's limitation on family input at the time of death and in cases where there is family disagreement with the deceased's decision, may cause the next-of-kin to become disgruntled and unhappy with the system and/ or medical fraternity. Inevitably they will be spreading their experiences and feelings in their community, which has potential to increase public dissatisfaction with organ donation (Cotter, 2011). Given cultural customs and the way in which many South Africans approach matters such as this, including the level and importance of family discussion and group decision-making within traditional African beliefs, the exclusion of familial consent could be a relevant concern⁸. Although the system may result in a number of disgruntled families, it cannot be overlooked that decision-making by the subject of the procedure at a calm and reasonable time is far more likely to result in a rational decision. This is in comparison with that made hurriedly by grief stricken family members: Thus "this careful decision should not be overridden by a

⁸ Although the Bill of Rights (1996) allows for individual rights taking precedence over group rights, we need to consider the context within which the system operates. In the South African context, familial input is important and society's opinion on organ donation will impact the donation rates and therefore cannot be overlooked.

spontaneous decision made by family members in a time of stress and shock” (Cotter, 2011).

Spital (1996) points out, a system of mandated choice could increase the number of available donor organs, which promotes non-maleficence. This is through saving lives, sparing families the loss of a loved one and potential breadwinner, and saving the State money on treating individuals with organ failure. Finally, mandated choice alleviates the anxiety which medical professionals have to endure when broaching the topic of organ donation with grieving family members. Should the deceased have already decided to be/ not to be an organ donor there will be no need for the next-of-kin to be approached regarding the consent for organ donation.

Accordingly, from all aspects mandated choice as a system of organ procurement upholds the principle of non-maleficence, provided that the population is well enough informed on the topic. In South Africa strong focus on awareness campaigns will need to be implemented should mandated choice be put into action.

5.3 Beneficence

“In healthcare practice this principle (beneficence) requires practitioners to act in the best interests of their patients and to aim at promoting their positive welfare” (Dhai and McQuoid-Mason, 2011). When it comes to organ donation it needs to be acknowledged that there are two patients to consider, the potential donor and the organ recipient. As previously noted, this paper will only focus on the system for attainment of donor organs, and not the distribution thereof. The organ recipient is more on the distribution side of organ donation. Thus, here the focus will be on how the system promotes beneficence towards the potential donor and how mandated choice upholds this principle.

Acting in the best interests of the potential donor would be 1) providing them with applicable and sufficient treatment despite their organ donor status. This is pertinent to all systems of organ donation and medical practitioners should be careful to explain brain death and survival odds carefully to the next-of-kin so misinterpretation

regarding organ donation can be avoided. 2) Acting on the patient's wishes (donor / non-donor), this is certainly complied with in a system of mandated choice as it aids in "returning control to the individual" (Spital, 1996). 3) to some extent making the donor's death as easy on their family as possible, because a "high rate of family refusal contrasts sharply with public opinion polls... stress accompanying the decision-making process could be avoided, the rate of consent would increase" (Spital, 1996).

Mandated choice does just that, moves the decision away from next-of-kin and places the power with the individual to make a choice at a time where emotions are not running high and clear thinking is far more probable. Along with mandated choice promoting beneficence towards the donor and his next-of-kin, the system has the potential to increase donor organs and thus save many lives.

Mandated choice supports the principle of beneficence and as a result would be an ethically appropriate system of organ donation in South Africa. As mentioned above, South Africa's challenge of improving awareness on the topic and infrastructure must be addressed. This is the case with all systems as enhancement is desperately needed to increase the country's organ donation rates, no matter the system implemented.

5.4 Justice

As mentioned previously, some critics claim that mandated choice is a coercive system of organ donation, "forcing people to commit to a specific, isolated end-of-life decision is coercive and short-sighted" (Klassen and Klassen, 1996). Proponents for mandated choice counter this declaration by arguing that in the organ procurement system of mandated choice the choice made does not in any way effect the underlying task (applying for a driver's licence, or tax return). Also, there are no incentives or benefits awarded to those who decide to be donors, in addition to the system allowing for decision-making at a stress free time Mandated Choice is consequently fair and not coercive (Cotter, 2011).

Mandated choice is a fair and just system for organ donation as the wishes of each individual are observed. In addition, “by further ensuring that each person’s wishes would be known and honoured, favourable public sentiment toward organ donation should translate into increased rates of organ procurement” (Spital, 1996). This potential to increase the amount of available donor organs in the country will assist with fair distribution of these scarce resources as there will be more to go around, reducing the gap between supply and demand.

Furthermore, the result of the intensive advertising campaigns and promotion of organ donation used in mandated choice will increase public interest on the topic. It is reasonable to presume that with the increase in awareness, there will be an increase in medical professionals who would be interested in working in the organ donation field. This will bring more professionals into organ donation and better the distribution of these specialised and valuable medical professionals.

As argued above, mandated choice promotes the principle of justice through the increase of limited resources, which in turn should translate into bettering distribution of scarce resources. Distributive justice is thus upheld.

In agreement with The American Medical Association’s Council on Ethical and Judicial Affairs I have argued that mandated choice is ethical. In terms of practicality, South Africa would need to improve upon infrastructure to support the system as well as increase public awareness on the topic of organ donation (further discussed in Chapter 6.1). In Chapter 6 I will argue that a system comprising both opt-in and mandated choice is the most ethically and practically suitable system to implement in South Africa.

Chapter 6: The Case for a Hybrid System of Mandated Choice and Opt-in Organ Donation

In the chapters above, Principlism has been used to ethically evaluate opt-in, opt-out and mandated choice as systems of organ donation with specific focus on their suitability in South Africa. As has already been established, the current system of opt-in organ donation is clearly not sufficient as there are increasing numbers of people dying each year from organ failure which could be prevented with a better supply of donor organs, among other things. The statistics provided by the Organ Donation Foundation (2016) show how donor organ numbers are less than impressive. This together with the ever-increasing need for these organs demonstrates opt-in's failure as an organ donation system in South Africa, "the drawbacks of relying on such a spontaneous form of altruism (in opt-in) is that due to procrastination or inertia the donation rate can be quite low and less than the willingness to donate" (Van Dalen and Henkens, 2014). In this chapter, an argument for the implementation of a hybrid system (opt-in and mandated choice) is provided. This system is argued to be a practical and ethical way for South Africa to achieve better organ donation rates.

The obvious need for change in South Africa's organ procurement system has been a long time coming. It brings us to the question of what changes need to be made for this inefficiency to be alleviated and ultimately rectified for long term success of South Africa's organ procurement system. Mandated choice alone in South Africa cannot work, because as argued in Chapter 4 suitable informed consent is difficult to achieve with the current communication barriers and literacy levels in the country (Etheredge, Turner and Kahn, 2014). In addition, being able to inform the entire population on organ donation is near on impossible because there are many people in rural areas who may never encounter the advertising campaigns used in mandated choice. This is because they may not have access to TV/ radio where awareness campaigns will be driven, or enter cities where written poster/billboard advertising is

more predominant. Furthermore, a system of mandated choice alone in South Africa is not inclusive enough. Many people do not earn enough to pay tax or drive a car thus they would not have the opportunity to make a decision on organ donation through a government application⁹.

This situation gives rise to my proposal to implement a hybrid organ procurement system of opt-in and mandated choice. Those who do pay tax or apply for a driver's licence are mandated to make a choice on their organ donor status I submit that the probability of them being able to make an informed decision is high because they are likely to be literate and can read the organ donation insert on the application. If they cannot provision must be made for someone to read it to them. Those who do not participate in these activities remain on the opt-in system. This should prevent violations of autonomy through demanding a choice from people who could be insufficiently informed on the topic. Consequently, I propose that a hybrid system will increase donor organs, conversation on the topic and awareness without contravening autonomy and informed consent. Below I provide an additional deontological argument for this claim.

It is obvious that excluding a portion of the population from the mandated choice system is not ideal. However, those remaining on opt-in still can choose their donor status. They are not being denied a choice, rather they are being protected. It is hoped that in the years to come South Africa's literacy levels will increase and the potential to have a wholly mandated choice system of organ donation in the country will be realised. For the mean time, I argue a hybrid system is the starting point for reforming South Africa's organ donation system.

Deontological ethics is based on the rightfulness of the action and not the resultant consequences of said action, "deontology is the study of duty. On Kant's view, the

⁹ The South African population is at 55.6million (Stats SA, 2017), while only 19.1million people were registered for income tax in 2016 (2016 Tax Statistics Highlights, 2016) and 12.2million active driver's licences (eNatis, 2017).

sole feature that gives an action moral worth is not the outcome that is achieved by the action, but the motive that is behind the action” (McCormick, n.d.). Therefore, the idea of acting in accordance with duty (materialised through rules and laws) is of central importance.

The way in which people should decide on whether an action is moral or not is as follows:

“Kant believes that reason dictates a categorical imperative for moral action. He gives at least three formulations of the Categorical Imperative.

1. ‘Act only according to that maxim by which you can at the same time will that it should become a universal law.’ (Ibid., 422)
2. ‘Act as though the maxim of your action were by your will to become a universal law of nature.’ (Ibid)
3. Act so that you treat humanity, whether in your own person or in that of another, always as an end and never as a means only.’ (Ibid., 429)” (McCormick, n.d.).

When it comes to applying Kant’s categorical imperative to organ donation, being an organ donor is the moral thing to do: If everybody was a donor there would be far fewer deaths from organ failure, and if in need of an organ most people would promote organ donation as their lives would depend on it. Thus, a system which is geared towards promoting organ donation should be a universal law. This fulfils number 1 above.

Insofar as treating people with dignity and not only as a means but also an end, the system of organ procurement used in a country should support this. Dignity is strongly related to informed decision-making and the principle of autonomy. The right to dignity is a Constitutional right in South Africa (Bill of Rights, 1996). Implementing a system of organ donation which promotes informed consent, autonomy and dignity is imperative and a duty of the government to uphold.

Consequently, South Africa needs to formulate a system for organ procurement which increases the amount of available donor organs, while still abiding by the principle of autonomy and treating people with respect and dignity. I claim that on the basis of the foregoing argument, the best way to do this is to use a hybrid organ donation system of opt-in and mandated choice.

Mandated choice gives more consideration to informed consent and to the principle of autonomy than opt-in, and is hoped that it will also increase the rate of organ donation. But as is the case for any attempt at increasing organ donation in South Africa, it requires education, literacy and improvement of infrastructure to be a feasible system. I argue that for those not included in mandated choice parameters (not paying tax / getting a driver's licence) opt-in will remain in place to protect citizens who are less likely to be literate. If an individual is illiterate, it is less clear that she is able to accurately note her donor wishes. Therefore, I submit that forcing people who are not likely to be literate to make a decision on organ donation may result in uninformed decision-making.

As the social, cultural and educational state of affairs within South Africa change, so will the requirements for an organ donation system. As argued above, combining mandated choice with opt-in organ donation would be an ethically favourable and practically acceptable way in which South Africa could increase organ donation at this time.

6.1 Recommendations for the Integration of Mandated Choice

Changing a country's system of organ donation is not an easy or quick job. Once it has been established that a change is needed, and it has been agreed what exactly needs to be changed, the formulation of how that change needs to be implemented ought to be focused on with careful attention to detail.

In this research report I have argued that South Africa's organ donation system of opting-in has not proven to be effective, therefore the country is in need of a change. I have also argued that the most ethical way in which organ donation rates in South Africa can be increased is through the amendment of the opt-in organ donation system, to employ a hybrid organ procurement system of opt-in and mandated choice.

For the introduction of any new nationwide medical system which impacts the entire population, there needs to be extensive awareness campaigns and educational programs put into place for the purpose of alerting the members of the public to the alteration. The aim is to get as many people as possible to understand the system and know how they impact, and are impacted by it.

Awareness and comprehension of a medical system such as organ donation will take time and it is important that sufficient time is allocated to informing the population before the system is activated. Should this not be done, there is a risk that people will be unaware of how organ donation works and this could make them vulnerable as their decision-making on the topic will not be informed, resulting in mistrust and an unethical system of organ donation. Even if the system of organ donation does not change in South Africa, in order to increase the rates of organ donation these awareness campaigns and programs are vital. Therefore, the use of widespread awareness drives and informative programs is required in the case of South Africa's inclusion of a mandated choice system of organ donation. It is an essential course of action for South Africa's organ donation and transplantation systems to progress and to be improved upon.

Mandated choice itself will stimulate community discussion on organ donation which will promote awareness. As long as government has informed the public adequately so that they properly understand the system and do not spread untruths which may negatively impact organ donation rates in South Africa, "mandated choice might be

the most effective method for increasing public awareness of the great value of organ donation, and this might further stimulate participation” (Spital, 1996).

The current medical information sharing infrastructure required for organ donation in South Africa is shockingly poor. As discussed in Chapter 2 there is no central, independent organ donor list which is available to medical professionals who deal with organ donations and transplantations, nor is there an overseeing body which keeps track of organ donation as a whole in the country (McQuoid-Mason, 2011) . Hence it is obvious that for any system, including that of the proposed hybrid system, to be effective in the country there needs to be improvement; “an official organ procurement organization supported by all ... has the potential to provide a quantum leap for organ donation, with improved education, quality assurance, legal framework, and outcome supervision under 1 roof” (Muller, Thomson and McCurdie, 2015). Again, this much needed improvement of infrastructure is not only applicable to mandated choice, but for any system utilised in the country the improvement of infrastructure will greatly improve organ donation rates.

At present, the costs and administrative efforts of including a pure system of mandated choice are too exorbitant, therefore this method of organ procurement is not viable. However, it is possible. A system created to organise and standardise organ donation would be more cost effective in the long run than treating people for organ failure without using organ transplantation (Cotter, 2011). There will of course need to be economic investment into bettering infrastructure in order to manage mandated choice. Again, this is necessary anyway, but the system promises to provide more donor organs through a more ethical system; “a program of mandated choice is worth the effort, because it is unlikely to result in a worse situation than exists currently” (Meshkov, 1997).

I submit that once a central list and overseeing body has been established, the scope of mandated choice should ultimately be widened to include more than those completing tax returns and/ or getting drivers licences. I argue that the option of

adding mandated choice to tertiary studies application forms as well as health insurance application forms may be worth considering. The argument behind this is that it will make the system more inclusive, while still supporting autonomy. This topic has not been found in the literature, and further research would be of value.

Accordingly, if South Africa were to implement a system of mandated choice *with* opt-in for the procurement of donor organs, recommendations for the employment of such a system include:

- Strong, permeating and persistent organ donation advertising.
- Awareness campaigns in schools and communities nationwide.
- Sufficient time allowed for the information to infuse into the population, improvement of infrastructure and of course commitment from government as well as the medical fraternity.

Chapter 7: Conclusion

Organ donation is a medical marvel with many ethical and practical considerations to be considered. With its incredible benefits not only through increasing a person's quality of life and life expectancy, the procedure is far more cost effective than other modes of treating end stage organ failure such as dialysis (Cotter, 2011). Given these significant benefits to individuals and the State, it is no wonder that the demand for organ donation and transplantation is high. Internationally the obstacle to meeting this demand is the short supply of available donor organs. This can be linked to numerous factors including religion, cultural beliefs, low level of awareness on the topic, and the current organ donation system utilized in a country.

South Africa's use of the opt-in organ donation system has proven to be unsuccessful and the need to amend this system is obvious. However, a change in the organ procurement system is not the only area which needs to be improved upon. The current lack of a central body in place to monitor organ donation and transplantation as a whole in the country is a massive problem. Establishing a central overseeing body would result in standardisation of procurement referrals and procedures, training of staff, better distribution of transplant coordinators and the establishment of a quick and easily accessible national organ donor list (Muller, Thomson and McCurdie, 2015).

In determining how to better the organ donation system utilized in South Africa the low level of awareness and literacy in a large portion of the population needs to be recognised. Accepting the fact that no matter the change in system implemented, there will have to be significant investment into organ donation awareness campaigns. This is with the objective of informing the population as much as possible on the topic of organ donation and consequently increasing donation rates in the country.

I argued that implementing an organ procurement system which combines opt-in and mandated choice will be the most ethical and practical solution to the donor organ shortage in South Africa. Mandated choice raises awareness as a significant portion of the population will be asked the question about organ donation. This will not only make them decide on their status as an organ donor but also generate discussion on the topic within their households and communities. However, opt-in remains as the alternative option when an individual has not applied for a driver's licence or tax return, to ensure nobody is making a choice when there is not a high level of confidence that the individual is literate and therefore able to document their autonomous decision. The hybrid system will not only increase the number of donor organs available in the country, but it will also protect the principles of autonomy, non-maleficence, beneficence and justice.

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