
ORGAN DONATION SYSTEMS IN PAKISTAN: ANALYZING DIFFERENT MODELS AND SYSTEMS OF ORGAN DONATION, SUCH AS OPT-IN, OPT-OUT, MANDATED CHOICE, PRESUMED CONSENT, AND FAMILY VETO. COMPARE THEIR EFFECTIVENESS IN INCREASING ORGAN AVAILABILITY AND RECOMMENDING A SUITABLE SYSTEM FOR IMPLEMENTATION.

We created man from sounding clay, from mud molded into shape." (Al Quran 15:26)

The human body, composed of millions of cells and tissues, represents a complex entity that has been the subject of extensive study for numerous years. With each passing day, new advancements in medical science are made, further unravelling the intricacies of our physiological makeup. However, the progression of various diseases to a chronic state can ultimately lead to organ failure, necessitating organ donation and transplantation. To ensure the success of such transplant procedures, medical practitioners heavily rely on donated organs. Regrettably, Pakistan witnesses a distressing number of fatalities each year due to organ failure, primarily due to the significant difference between the number of patients awaiting organ donations and the limited availability of organ donors. Consequently, educating the younger generation, as they constitute the future donor pool, becomes paramount about the concept and significance of organ donation.

Introduction

Organ donation can be described as the voluntary and legal removal of an individual's organ, either with their consent during their lifetime or with the permission of their next of kin after their demise. This selfless act paves the way for various transplantations, encompassing vital organs such as the kidney, heart, liver, pancreas, intestines, and lungs, as well as other tissues like corneas and bone marrow. While few organs and tissues, such as kidneys and certain portions of the liver, pancreas, lungs, and intestines, can be given by living individuals, most donations occur following the donor's passing. (Khalid et al., 2019)

This policy report comprehensively explores diverse models and organ donation systems, encompassing opt-in, opt-out, presumed consent, mandated choice, and family veto. The central aim of this report is to conduct a comparative analysis of these systems' efficacy in augmenting organ availability, ultimately offering recommendations for adopting an appropriate system.

Importance of the Problem

The scarcity of organs for transplantation is a critical issue faced by healthcare systems worldwide. The existing supply of organs cannot keep up with the requirements, resulting in significant waiting lists and a high mortality rate among patients awaiting life-saving transplants. This global organ shortage crisis demonstrates the critical need for efficient transplantation systems to close the supply and organ demand imbalance. The shortage of organs directly affects the health and life expectancy of individuals needing transplants. For patients suffering from end-stage organ failure, a timely transplant can be their only chance of survival. Prolonged waiting times increase the risk of complications, disease progression, and death (Girlanda, 2016). We may be able to save many lives and enhance the patient's standard of life by tackling the issue of organ scarcity.

Moreover, organ donation raises significant ethical considerations regarding autonomy, consent, and equitable access to healthcare (Girlanda, 2016). It is crucial to respect the concerns of potential donors and ensure that their choices are upheld while also considering the ethical implications for recipients in need of organs. Developing an organ donation system that balances individual autonomy, societal benefit, and ethical principles is essential for addressing this complex issue. Moreover, organ donation systems must strive for fairness and equality in organ allocation, ensuring that socioeconomic status, race, and gender do not unduly influence access to transplantation. Ethical frameworks are crucial in shaping policies that promote transparency, accountability, and justice in organ donation systems. By acknowledging the importance of the problem surrounding organ shortage, we recognize the ethical imperative to develop effective organ donation systems that increase the availability of organs, save lives, and uphold the principles of autonomy and equity (Saleem et al., 2009).

Emergence of Different Organ Donation Systems:

The emergence of different organ donation systems reflects the ongoing efforts to address the organ shortage crisis and optimize organ allocation processes. Over time, several countries have implemented various systems to promote donation of organs and increase the efficiency of the organ donation process. The global transplantation community has engaged in extensive discussions for many years regarding the potential advantages of converting from opt-in to presumed consent systems with the goal of expanding the supply of willing. Opt-out laws have grown to be very popular, as shown by the recent adoption of such laws in the UK, British Columbia, and Halifax, Nova Scotia. Scotland is expected to comply with suit in March 2021, while comparable changes in the Republic of Ireland and Canada are being seriously considered (Etheredge, 2001).

Opt-in System

One of the earliest models to gain recognition is the opt-in system. In this model, individuals must actively express their consent to become organ donors, typically by signing up on a registry or indicating their choice on an official document. This system relies on individuals proactively initiating the donation process. However, studies have shown that the opt-in system often results in lower donation rates due to the requirement of active participation and the potential for procrastination or lack of awareness among potential donors (English et al., 2019).

In certain countries, such as Canada, opt-in strategies are commonly employed to facilitate organ donation. These tactics often entail people enrolling on a digital database, which can be done quickly and with no need for face-to-face communication. However, these strategies often fall short of meeting the desired standard. For example, the positive agreement system in Canada mandates that people voluntarily express their permission for donation of organs while the person is still alive. When individuals are determined to be suitable for donation, organ donor organizations may utilize their internet-based register, which is connected to their health services identifying information. Currently, each province in Canada operates its own online registry, and registration rates vary significantly. The success of these registries is determined by elements like the application process's usability and how well the public is informed about the donation of organs.

Critics argue that the opt-in system suffers from low donor rates, primarily due to its reliance on individuals actively choosing to opt in. This results in a significant disparity between potential donors and the actual number of organ donors, leading to lengthy waiting lists and delays in life-saving transplantation procedures. Moreover, the burden of initiating the decision to donate falls on individuals, leading to low participation rates as many people fail to take the necessary steps to register their consent. Consequently, opportunities for organ donation are missed, limiting the available pool of organs for transplantation. The lack of the general public's comprehension of the act of donating organs pursuant to the opt-in procedure presents another issue. Insufficient knowledge about the process, benefits, and impact of organ donation hampers individuals' decision-making and contributes to suboptimal donor rates. Furthermore, the implementation of the opt-in system can vary across different regions and healthcare settings, resulting in inconsistent procedures for obtaining consent. This lack of standardization leads to confusion and disparities in access to information and registration processes for organ donation.

Altogether, the opt-in organ donation system faces challenges such as low donor rates, reliance on individual initiative, limited public awareness, and variability in consent procedures. To guarantee a sufficient supply of structures for the transplantation process, these limitations highlight the continued need for initiatives to resolve these issues and enhance organ donation

policy.

Opt-out System

The opt-out method, referred to as the presumed consent model, is being implemented in some nations to solve the shortcomings of the opt-in approach (Arshad et al., 2019). Every person qualifies as prospective organ donors within this method until they specifically state that they do not want to make donations. The rationale behind this approach is that it shifts the burden from individuals to actively opt-in to a system where individuals need to act only if they do not wish to donate (Arshad et al., 2019). According to studies, nations that use the opt-out method typically have greater rates of donation of organs than nations that use opt-in methods. In several nations, the presumed consent model has also been put into practice, which operates under the premise that people are eager to donate until they expressly refuse.

This model is based on the premise that the default position should be to utilize organs for transplantation unless an individual has explicitly stated their objection. While this system has shown promising results in increasing organ donation rates, it also raises ethical concerns regarding individual autonomy and the need for clear and effective communication of donation preferences (Arshad et al., 2019). There are two methods for implementing an opt-out system: the hard approach and the soft approach. Under the hard approach, if an individual has not explicitly chosen to opt out of organ donation before their death, their organs will be automatically donated, and their family will not have any influence over this decision. On the other hand, the soft approach presumes that a deceased individual's organs are available for donation if they have not opted out. However, the final decision regarding the donation of their loved one's organs lies with the family.

Mandated Choice System

This system entails a different design, drawing significant interest. When applying for a driver's license or renewing identity cards, for example, this process encourages people to decide whether to donate their organs. By mandating individuals to decide, it aims to promote awareness and facilitate the expression of donor intentions. The "freedom" in a mandated choice model involves voluntarily agreeing to donate an organ following death. In contrast, in an opt-out system, the option would require openly declaring a preference against donation of organs. However, the effectiveness of this system remains a subject of debate, with concerns raised about the potential for coercive decision-making and the need for continuous reevaluation of individuals' choices over time (Symens & Poulden, 2022). According to research done in 2022, mandating a framework for donating an organ could be a moral approach to enhance the supply of essential organs for transplantation to another person. People are required to decide if they are ready to take on a certain action under an imposed decision system. A mandatory choice

scheme in the framework of organ exchange would call for people to decide in advance whether they want to give their organs when they pass away. The study puts out a novel concept, advocating that all Australian federal campaign voters be required to declare their choices for donation of organs at the time of casting their ballots.

Such a structure may be more efficient than an opt-in structure, where people must voluntarily indicate their desire to give. It would force people to think about and deliberate their decision about organ donation. The research also highlights that a mandatory choice system may be more morally sound than an opt-out system since it does not operate on the flawed presumption of "presumed consent.

Family Veto

This model allows the family or next of kin to override the individual's registered organ donation decision. This paradigm acknowledges the value of including family members in the decision-making procedure and respects their role as advocates for the deceased individuals' wishes. However, challenges may arise when family members are unaware of the individual's donation preference or hold differing views, leading to potential conflicts and delays in organ procurement. Since there are already more Canadians seeking donations than there are organs accessible for donation, the worry over the "family veto" is not unexpected (Towes & Caulfield, 2016). This approach, which puts a family's opposition to organ donation ahead of the deceased individual's legally stated permission, has an impact on the supply of life-saving organs, ignores the individual's independence, and goes against recognized legal standards in Canada.

Regardless of this, several provincial/territorial organizations that support the donation of organs declare on their web pages that a person's legally binding permission is superseded by the desires of their family. It emphasizes how crucial it is for the transplantation and donation organizations to be knowledgeable of and to abide by the regulations regarding permission for donation (Towes & Caulfield, 2016). Overall, the development of various organ donation schemes reflects continuous attempts to increase the accessibility of organs and the success of transplantations. Every model has different benefits and drawbacks; thus, it is important to carefully assess each one's success using data from empirical studies and societal factors (Towes & Caulfield, 2016).

Comparison of Different Organ Donation Systems Across Countries

Spain

Spain's organ donation system is often regarded as a success story due to its high number of deceased donors per million population of 40, easily surpassing the United States with a figure of 27 (Robson, 2018). However, it is important to note that the assessment of Spain's organ donation system is not straightforward when it comes to the opt-out approach. While Spain is often associated with an opt-out policy, the reality is more complex. Even Spanish transplantation specialists disagree that Spain is an "opt-out" nation. In contrast to conventional opt-out procedures, Spain does not keep a list of those who decide not to donate, and families are constantly contacted for consent to organ donation. These features go counter to some of the key tenets of opt-out systems, which lessen their effectiveness. In addition, the rise in the number of dead donors didn't occur for another 10 years after the "opt-out" policy was put in place. This growth is attributable to several efforts, mostly those carried out at the medical facilities' level (Matesanz et al., 2017)

Spain's success in organ donation can be attributed to several factors. The Spanish government set up a nationwide donation network that includes all hospitals and made major investments in educating hospital workers to quickly spot possible donors. Furthermore, an established community of transplant administrators who have received training in approaching family members to seek organ donation does so. To improve organ utilization, there has additionally been an emphasis on encouraging transplantation after cardiac death and using broadened criteria allograft. Compared to the total transplantation system, these programs have had a more substantial influence on dead donation ratios. The Spanish case emphasizes the need of considering finer details when evaluating organ donation programs and the dangers of categorizing programs purely as opt-in or opt-out. Spain doesn't fully conform to either system's ideals, although it resembles an opt-in strategy as much as an opt-out one (Dominguez-Gil et.al, 2017).

Wales

Wales was the very first nation in the UK to implement the opt-out mechanism with the soft approach on December 1st, 2015, with the objective of increasing organ donation rates by 25%. This change has yielded positive outcomes. As per the Scottish Government, the consent rate for organ donation rose from 44% in 2014 to 65% in 2018. Furthermore, The Guardian reported an increase in family consent in Wales from 49% to 59%, along with a rise in the rate of living organ donation from 20% to 49% (Madden et al., 2020).

Despite the favorable results observed in Wales, there is opposition to this law. Many Christian groups, for instance, support organ donation but object to the law as they believe that organ donation should be a voluntary act, rather than a government-mandated requirement. Similarly,

certain Muslim groups hold the belief that the body should be buried intact, posing another challenge. To address this barrier, the government has undertaken public education initiatives through nationwide campaigns. These measures involve television advertisements, billboard promotions, and debates aimed at informing the Welsh population about the shortage of organ donors and how the opt-out system functions.

Colombia

In 2017, the Latin American nation of Colombia switched from an opt-in model to an opt-out approach. By the last month of 2018, an analysis of the Colombian donor database showed that the adjustment had not made a material overall difference to the nation's kidney donation rates (Nino-Murcia et al., 2018). The total amount of donors did, however, slightly increase in areas with historically lower rates of family permission. This may be explained by a change in the wording employed when asking for family consent to contribute under an opt-out system, whereby interactions presuppose a voluntarist attitude. Although every donor activity in Colombia must be reported, there are little long-term statistics on how transplants turn out. However, the existence of openness inside the organization may help to increase confidence. This may be explained by a change in the wording employed when asking for family consent to contribute under an opt-out system, whereby interactions presuppose a voluntarist attitude. Although every donor activity in Colombia must be reported, there are little long-term statistics on how transplants turn out. However, the existence of openness inside the organization may help to increase confidence. Recent study shows a little rise in transplantation activity, but it's crucial to remember that this pattern was also there before the opt-out mechanism was put into place (Castañeda-Millán et al., 2014).

Pakistan

Despite the existence of living organ donation programs, these initiatives have been unable to meet the growing burden of end-stage diseases. By far the most frequent cause fatalities in Pakistan, according to the Pakistani National Centre for Health Statistics, are organ dysfunction (Denu et al., 2018).

A law allowing dead deceased people to donate organs in Pakistan was passed in 2007 in response to this dire circumstance. To further encourage and tackle the many concerns of dead organ donation, the National Transplant Society of Pakistan was founded. This organization conducts educational conferences and seminars. Nevertheless, despite these initiatives, only over 60% of Pakistanis were found to have information about organ donation. The growing need for live donations of organs in Pakistan is a result of the absence of dead organ donation programs and the public's resistance to taking part in such activities (Denu et al., 2018).

As things stand, renal and liver transplants have largely been stagnant in their overall numbers over the last few years as evident by the following mentioned numbers. These are all statistics for live transplants, with a total of 3,303 renal transplants from 2016 through till 14th July 2023 and 778 liver transplants during the same period. However, there is promise in the fact that 31 hospitals across the province are involved in transplantation as per the exhibits, with an evident rise of PKLI as the main center for organ transplantation within Punjab. In particular, the PKLI has become the main center for liver transplants, including SWAP liver transplants, which were only recently introduced given the existence of restrictions on such transplants in all provinces other than Punjab. In this regard, I interviewed two doctors from PKLI who are actively involved in the increase in transplantation numbers the hospital has witnessed, Dr. Faisal Dar, Dean of PKLI and Dr. Faisal Amir, Hospital Director.

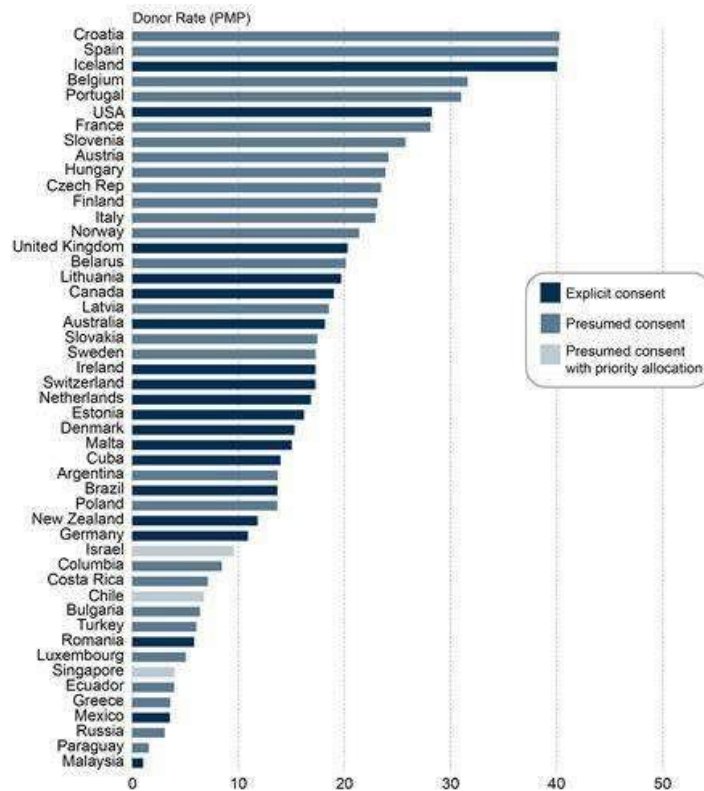
With the position of the Government central in directing the narrative around transplantation and in enabling it, the Human Organ Transplant Authorities of each province hold the main responsibility for carrying out the government's efforts. The PHOTA (Punjab Human Organ Transplantation Authority) currently has a form whereby individuals can register as donors, implying the willingness to donate their organs. However, given that only 200 or so individuals have registered, it is evident that the current system severely falls short of achieving potential donor numbers and resultantly, of organ transplants. Resultantly, that is the primary focus of our paper as we seek to address the current problems curtailing the development of organ transplantation systems.

Currently, the government has made little effort in this regard, with Exhibit 1 depicting an awareness advertisement in a newspaper, Exhibit 2 showcasing their efforts to improve organ transplantation procedures in Punjab, Exhibit 3, a call against illegally trafficked organs for transplantation and Exhibit 4 stating the efforts by PHOTA to spread awareness regarding the religious perspective in Islam.

Global Figures for Donor Rate

The following is a graph depicting the donor rate per million for several countries. This reflects their primary approaches too.

Figure 1 – Donor Rate



Source: Robson, K. *The Human Tissue (Authorization)(Scotland) Bill*. Scottish Parliament Reports, 2018. 62 (3): p.28-33.

Comparative Assessment

Studies and data from countries that have implemented opt-out or presumed consent systems consistently show higher organ donation rates compared to opt-in systems, except for Iceland. For example, Spain, which has an opt-out system, has one of the highest organ donation rates in the world. According to a study published in the *New England Journal of Medicine*, the introduction of presumed consent legislation in Wales resulted in a 25% increase in organ donation rates within the first two years. These findings suggest that by shifting the default option to donation, more individuals are likely to become donors, ultimately increasing organ availability (Rithalia et al., 2009).

Research indicates that the success of presumed consent and opt-out systems is closely linked to effective public education and awareness campaigns. According to research in the *International Journal of Medical Ethics*, nations with higher percentages of organ donation, such as Austria and Belgium, actively engage in comprehensive public outreach initiatives (Kaushik, 2009). These campaigns aim to dispel misconceptions, clarify the opt-out process, and emphasize the importance of organ donation. They play a crucial role in building trust,

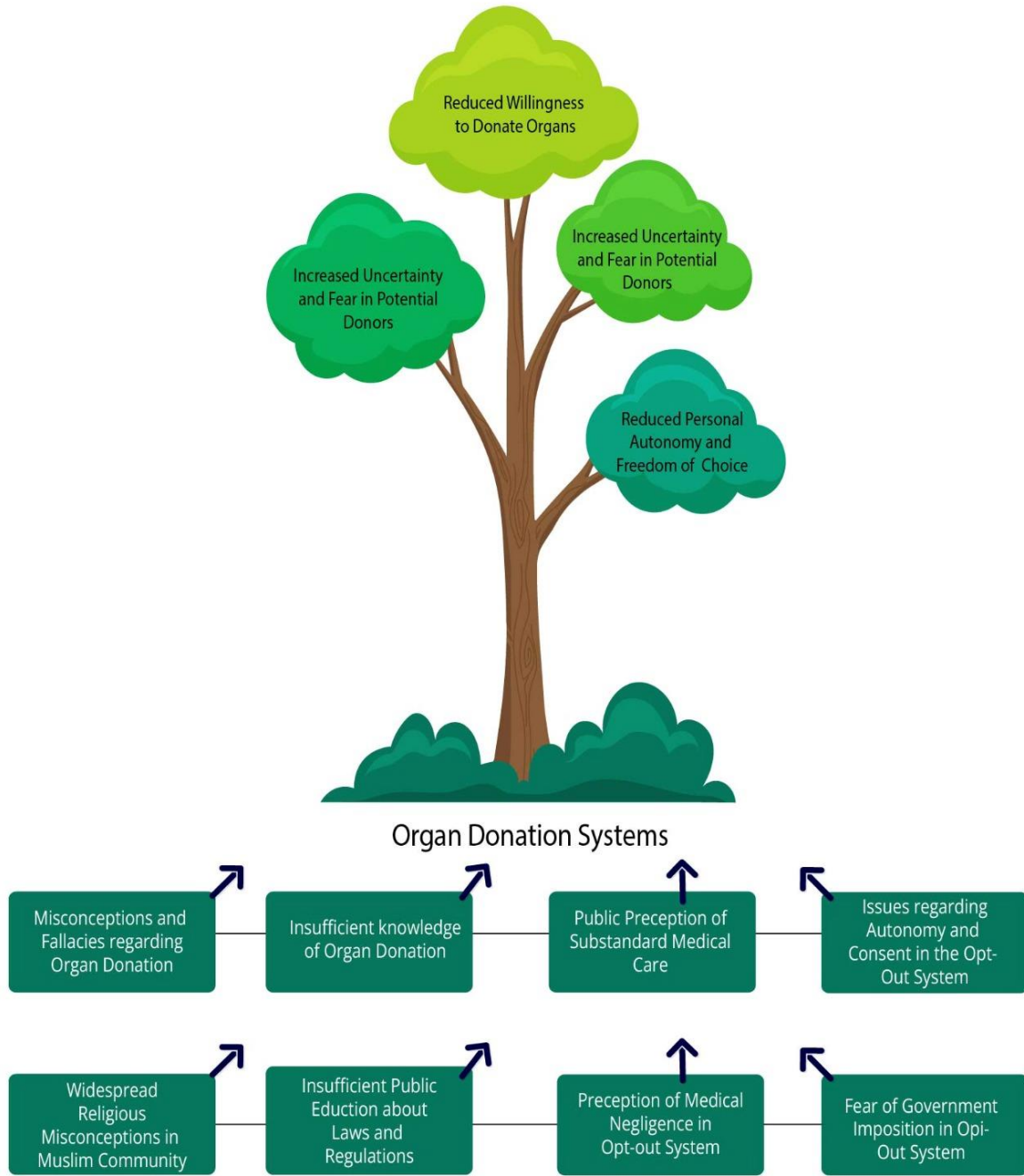
addressing cultural concerns, and encouraging individuals to make informed decisions about their donation preferences (Jonsen, 2012).

Comparative analysis also highlights the significance of legal frameworks and infrastructure in supporting effective organ donation systems. Countries with successful opt-out or presumed consent systems often have well-established legislation that provides clear guidelines on organ procurement, allocation, and family involvement. Additionally, these countries invest in robust infrastructure, including organ procurement organizations, transplant centres, and donor registries, to ensure efficient coordination and timely organ allocation. The presence of strong legal frameworks and infrastructure contributes to smoother processes, increased transparency, and improved organ utilization rates (Jonsen, 2012).

These evidence-based findings suggest that organ donation systems with opt-out or presumed consent frameworks, supported by comprehensive public education campaigns and well-designed legal frameworks, have the potential to significantly increase organ availability. However, while developing and putting such systems into place, it is crucial to consider the distinctive societal, moral, and legislative contexts of each nation. Furthermore, ongoing evaluation, research, and collaboration with stakeholders are necessary to continuously improve and refine organ donation systems for optimal outcomes.

Barriers to Organ Donation Systems in Pakistan

Figure 2 - Problem Tree



1. Misconceptions and Fallacies Regarding Organ Donation

In Pakistan, organ donation is substantially hampered by misunderstandings and

misconceptions. This includes both religious misunderstandings and general misconceptions about the process.

Despite numerous Fatwas affirming the moral acceptability of organ donation in Islam, religious beliefs continue to impede organ donation efforts (Saleem, 2009). Pakistan is not alone in facing this problem. A UK study involving undergraduates of Indian and Pakistani descent discovered a significant relationship between religious belief and organ donation. This indicates that religious misconceptions about organ donation are a pervasive problem, affecting not only Muslims in Pakistan but also diaspora communities. According to Islamic Ideological Council, organ donations are permissible for the deceased. Otherwise, the body is considered sacred and live alterations are resultantly discouraged (SIUT, 2015).

In addition to religious misunderstandings, there may also be general misconceptions about the organ donation process. These could include misconceptions regarding who can donate, which organs can be donated, and the donation process. These misunderstandings can generate unnecessary dread and reluctance, further reducing the number of potential donors.

2. Insufficient Knowledge of Organ Donation Laws and Regulations

Lack of awareness of the laws and regulations governing organ donation and transplantation in Pakistan is a significant obstacle (Saleem, 2009). This lack of understanding of the legal framework may discourage potential donors, as they may not comprehend the procedure or their rights.

It is possible that the legal framework for organ donation in Pakistan is not well-known or comprehended by the public. This dearth of knowledge can result in uncertainty and fear, which can discourage potential donors.

There may be insufficient or ineffective efforts to educate the public about the laws and regulations governing organ donation. Potential organ donors may be hesitant to donate their organs in the absence of plain, accessible, and accurate information.

3. Public Perception of Substandard Medical Care

There are disadvantages to the opt-out system, in which everyone is considered a potential donor unless they opt out explicitly. The public's perception that it could compromise the caliber of medical care they receive is one of them.

Approximately one-third of respondents to a National Institute for Health Education and

Training survey believed that physicians might prioritize organ harvesting over life-saving efforts. This misconception contradicts the Hippocratic Oath and contemporary medical principles.

This perception also indicates a lack of trust in medical professionals, which may be the result of past experiences, tales heard from others, or a general skepticism regarding the healthcare system. This lack of confidence can discourage people from becoming organ donors.

Unfortunately, this perception also holds true to a serious extent. From my interviews with Shehroz and Ali, I gathered tales of grave, sub-standard medical care. Both individuals were very close relatives of a donor who passed away, Muhammad Arshad Chaudhary. They detailed their experiences and offered their perspectives on the organ donation procedure. Shehroz emphasized the selfless purpose behind the donation by pointing out that the family wanted to rescue their father, who has been diagnosed with cancer. He voiced his displeasure with how the medical team spoke with him, stating that he did not feel the procedure was fully described. Ali reiterated these feelings and mentioned that the family did not receive adequate emotional support or counseling during this time. Both Shehroz and Ali emphasized how upsetting it was that the situation had such a negative effect on the family. The lasting emotional toll was considerable. Collectively, the family had to seek some sense of normality through honest communication within the family post the event and through professional counseling.

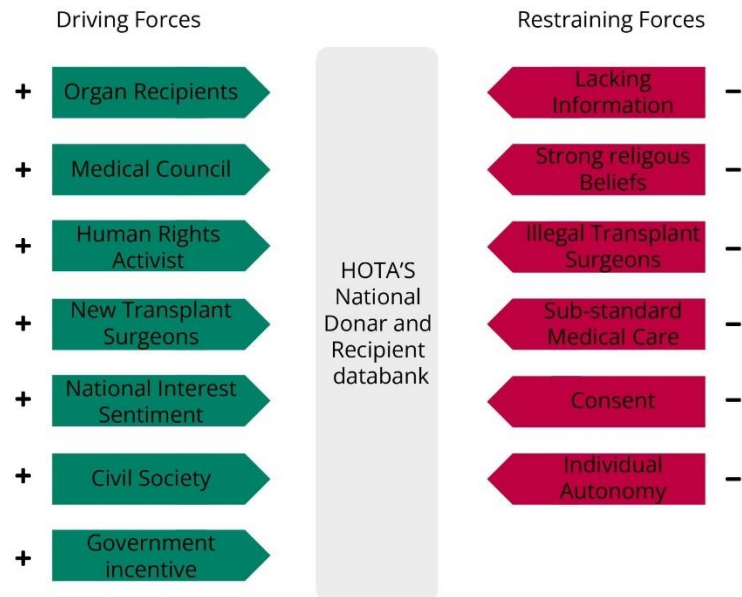
4. Issues regarding Autonomy and Consent in the Opt-Out System

Regarding autonomy and assent, the opt-out system is also met with skepticism. For instance, while the Catholic Church supports organ donation, it does not endorse presumed consent, as it is viewed as diminishing a person's autonomy in making the decision to donate. This concern regarding autonomy and assent is not unique to the Catholic Church; it is shared by numerous individuals and organizations.

Many individuals fear that their right to choose is being violated by the government's imposition of a decision, thereby eroding their control over their own bodies. This concern can discourage individuals from becoming organ donors, as they may feel that their personal autonomy is not respected.

Landscape Section - Stakeholder Analysis

Figure 3 - Force Field Analysis



1. Donors of Organs and Potential Donors

Given the prevalence of diseases within Pakistan and resultantly, the correlation with organ damage and failure, there is a sizeable demand for organ transplants. However, the percentage of people who donate organs is quite low, which results in a substantial gap between the demand for organs and the availability of them. Because of this difference, there are extensive waiting lists for organ transplants, and a significant number of people pass away before they can get a transplant. The existing organ donation system in Pakistan is mostly dependent on living related donors, which can limit the pool of accessible organs and put pressure on family members to contribute. In addition, the current system does not allow anonymous organ donations.

2. Family Members of Organ Donors and Potential Donors

Families of both donors and recipients play an important role. Families are frequently the primary source of organ donations, particularly in situations where living relatives are being asked to donate their organs. On the other hand, people could have a variety of difficulties, such as psychological strain, feelings of obligation to contribute, and worries about the potential

adverse health effects of organ donation. In addition to this, they could have trouble comprehending the procedure of organ donation and finding their way around the legal and medical systems.

3. Professionals in the Medical Field

Perhaps the most central role in the entire process is that of medical professionals. These experts include transplant surgeons and organ donation coordinators. They oversee executing organ transplants, organizing the process of organ donation, and providing care for organ donors as well as organ recipients. However, they could confront obstacles such as a shortage of resources, insufficient training, and ethical conundrums about organ donation and transplantation.

4. Regulatory Institutions

Within Pakistan, the Human Organ Transplant Authority (HOTA) plays a primary role in the oversight of the organ donations. In other countries, similar regulatory bodies may be found in other countries. They are accountable for the registration of organ donors and recipients, as well as the promotion of organ donation, as well as the implementation and enforcement of legislation and regulations that are relevant to organ donation and transplantation. However, they may experience difficulties such as a lack of resources, difficulties in implementing rules and regulations, and issues connected to issues related to the coordination and sharing of information between various areas and institutions. Nevertheless, they may be successful in overcoming these hurdles.

5. The Wider Population

Since most of the public is fit to be a potential donor, it is an important stakeholder in the organ donation system. Their views toward organ donation, which can be impacted by factors such as cultural values, religious convictions, and lack of understanding, can have a considerable impact on the organ donation rate. This is because their attitudes can be influenced by a variety of causes. To increase the percentage of people who donate organs, it is necessary to make efforts to publicize organ donation and educate the public about the value and advantages of organ donation.

6. Leaders in the Religious and Community Groups

Those in positions of authority, particularly within religious or community institutions, can have a great say in directing both individual and collective beliefs towards a topic. Resultantly, they have the potential to play a significant part in correcting myths and concerns linked to organ

donation, as well as in promoting organ donation. On the other hand, individuals can come up against obstacles such as conflicting interpretations of religious beliefs that are associated with organ donation and opposition from some parts of society.

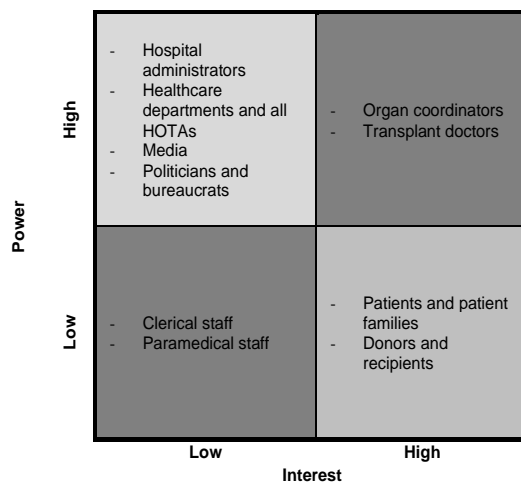
7. *The Government*

Holding authority over the development, creation and enforcement of organ donations regulation, the government also plays an essential role. It can also provide financing and resources, being positioned to encourage organ donation. This is a key function for the government to play in the system. However, it may face challenges such as addressing ethical concerns related to organ donation and transplantation, coordinating efforts between different regions and institutions, and balancing the need to increase the organ donation rate with the need to protect the rights and welfare of organ donors and recipients.

8. *Media*

Media is an important stakeholder in organ donations. It acts as the ears and eyes of society. It can be utilized effectively to carry out awareness campaigns. It gives voice to ideas and thus can play an important role in ensuring that the process of raising awareness is carried out effectively. A good media image will attract the attention of both the government and public. Therefore, media can serve as an important asset in getting masses across to the relevant stakeholders.

Figure 4: Stakeholder matrix analysis



Policy options

No action

Research and our exploration have shown that maintaining the status quo without implementing any specific measures to address organ donation systems is unlikely to effectively tackle the organ shortage crisis or increase donor numbers. Studies have consistently demonstrated the pressing need for proactive interventions to enhance organ availability and save lives. Taking no action may perpetuate the existing organ shortage and prolong the suffering of patients awaiting transplantation.

Awareness Campaigns

Awareness campaigns play an important role in highlighting the urgency of an issue. These campaigns can help to persuade people to help with organ donations. The campaigns will remove the barriers which hinder the process of organ donation. These barriers include religious beliefs, limited knowledge about organ donation process, reluctance due to cumbersome procedures, and various myths etc. Awareness campaigns specifically designed to burst these ideas will pave the way for increased organ donation. Similarly, the personal stories of donors can be advertised which will aid in transparency of process and motivate people to donate as well. Both print and electronic media can be used to raise awareness. Additionally, government can engage with NGOs, medical experts, religious clerics, and educational institutions for wider reach and addressing concerns. Studies indicate that organ donations increase after awareness campaigns are launched. For instance, a study conducted by the National Library of Medicine USA found that awareness campaigns increased organ donations by 5% (Symvoulakis et al. (2018). Therefore, it is imperative that government and other stakeholders raise awareness among masses about organ donations.

Engaging Religious Clerics

Pakistan is an Islamic Republic Country where people actions are mostly dictated by the religion. People seek to look upon the teachings of Islam for any aspect of live. People often look towards the guidance of Muslim scholars, and thus later act as opinion leaders. Muslim scholars have a huge impact on the choices and decisions made by citizens in Pakistan as they are seen sacred and wary of Islamic teachings. They issue Fatwas and people tend to take it as a guidance. In the case of organ donation, there is a mixed view among Muslim scholars. Some argue that is a form of charity as it saves lives. While others argue that it is against natural order and should not be

pursued. Internationally, there is an organization of Islamic scholars known as “Islamic Fiqh Council”. This body has issued a fatwa that organ donation is in accordance with teachings of Islam. However, it should only be carried out when it is done with the consent of donor and does not harm the donor. The study conducted by the National Library of Medicine USA found out that the willingness among students who were aware of the opinion of religious leaders was twice as compared to those who were not. Here willingness refers to the willingness to donate organs. (Aghaee et.al 2015). So, it is important to engage with Muslim scholars in Pakistan so that organ donation is increased and gradually normalized.

Legislative and Institutional Support

Enacting and amending existing laws is an important state affair. It ensures that the rights of the people are preserved and new laws facilitating people are passed. New laws and acts cater to the changing needs of the public in a dynamic environment. In Pakistan, the primary legislation related to organ donations is “Transplantation of Human Organs and Tissues Act, 2010”. This law sought to regularize organ donations and transplantation, curb organ trafficking, and ensure ethical practices in the organ donation process. Some other legislation was also passed to streamline the process of organ donation. However, there is still a lot of work to be done. More legislation should be passed to legalize organ donation and dismantle illegal organ trafficking networks and gangs. Legislation should be passed for establishing “National Organ Donation Directory” which helps matching donors with recipients. Legislation should also be passed to legalize the organ donation of brain-dead people which can save multiple lives. Additionally, it is important to ensure the implementation of existing laws. Legislation alone without institutional support would not improve the situation. Adequate resources, infrastructure, and training should be given to the personnel. Continuous monitoring and evaluation are important to assess whether targets are achieved or not.

Capacity building of authorities

Following the passage of “Transplantation of Human Organs and Tissues Act, 2010, an authority named as “National Human Organ and Tissue Transplantation Authority (HOTA) was established in 2010. It is mandated to regularize the transplantation of human organs and tissues in Pakistan. It is also tasked with promoting organ donation in Pakistan through awareness campaigns. Provincial authorities are also created in all provinces through acts of provincial parliaments. These authorities are responsible for ensuring that organ donations process is streamlined in the respective provinces. These authorities play an important role in the organ donation process and hence their capacities should be enhanced. The authorities should be provided with sufficient funds to carry out activities such as raising awareness, promoting organ donation in respective

jurisdictions, and regulating the process of organ donations. Secondly, the legal framework to govern organ donation is weak and needs to be strengthened. Legislation needs to be passed to ensure that the rights of recipients and donors are preserved. Thirdly, the coordination between various departments should be improved. This is important because the organ donations process involves multiple stakeholders and authorities. So, the coordination needs to be streamlined to ease the process. Fourthly, it is imperative to train medical professionals working in this field. Organ donation process is novel and delicate. It is important to train the medical professionals and give them adequate resources to ensure the process goes smoothly. The government and relevant stakeholders should consider forming collaboration for training in country and abroad as well.

Curbing illegal organ transplantation

According to Transplantation of Human Organs and Tissues Act 2010, the annual demand for kidney in Pakistan is around 25000. Out of these, only 2000 kidney transplants are carried out legally. While the demand for rest is met illegally through black markets. 2 million is the average price of kidney in Pakistan obtained through illegal means. Illegal organ transplantation was criminalized in 2007. Despite this, the deplorable practice is continued. Government needs to take targeted steps and ensure the implementation of laws relating to illegal organ transplantation. The illegal transplants are carried out in two ways in Pakistan. First is through a black market where a broker helps to match the organs of recipients with donors. The second way is some hospitals which operate in the black market and perform illegal transplants without licenses. The risk is very high for both recipients and donors as they can be infected with diseases and eventually die. Therefore, the government needs to address illegal organ transplantation and save lives of people. Curbing illegal transplantation is significant as it persuades people to pursue legal ways and help governments normalize organ donation in the country. In this regard, government needs to strictly enforce the legislation relating to organ donation in Pakistan. It also needs to improve coordination between provinces and authorities. In the past, it has been seen that black market brokers have exploited the weak coordination. For instance, the illegal organ transplantation laws are stricter in Punjab than other provinces. Seeing this, brokers shifted to other provinces to continue this illegal practice. Coordination is thus imperative. Government should also focus on improving the capacities of law enforcement agencies dealing with illegal organ transplantation. This will ensure that the illegal transplantation is reduced, and people are forced to adopt legal means of organ transplant.

Assessment Criteria

To evaluate the options proposed in the policy options section, we use policy assessment criteria. These metrics are selected in accordance with the context of the policy report. The report is focused on improving the demand-supply dynamics of organ donation in an

equitable manner. The following are the metrics, which are suitable for our policy report.

Ideological Criteria

Effectiveness

Effectiveness of an option measures whether the selected option is successful in achieving policy goals and objectives that were set forth in the report. It is found out by measuring the outcomes of the selected policy option.

Equity

This criteria measures whether the policy option is implemented with fairness. It aims to find out whether the policy option is implemented fairly and equitably. It measures whether the policy option meets the demand equitably and does not discriminate among people. So, in our context, it means that organs are distributed equally and fairly.

Criteria Based on Practice

Efficiency

It measures whether resources are utilized in effective measures. It is calculated by dividing output by input. It tells us how efficiently resources are being managed. In a sense, it is a cost-benefit analysis of policy options.

Political Feasibility

In this criterion, we assess the political willingness and support of politicians for the policy option. We also assess any constitutional hurdles that might prevent the policy option to be prevented.

Technical Feasibility

This metric measures the availability of technical expertise required for the policy option to be implemented. It assesses whether technical expertise and technology would be available policy option to be implemented.

Table 1 – Policy Options Assessment

| | Effectiveness | Equity | Efficiency | Political feasibility | Technical feasibility |
|---------------------------------------|---------------|--------|------------|-----------------------|-----------------------|
| Awareness campaigns | High | Medium | High | High | High |
| Engaging religious clerics | High | High | Medium | Medium | Medium |
| Legislative and institutional support | High | High | Medium | Medium | Low |
| Capacity building of authorities | High | High | Medium | Low | Medium |
| Curbing illegal organ trafficking | High | Medium | Medium | Medium | Medium |

Assessment of Options

Awareness Campaigns

Awareness campaigns can be an effective way of highlighting any issue if done properly. Most people are not comfortable with donating organs because they are unaware of many aspects of organ donation. These include lack of awareness on process of organ donation, religious taboos, and various myths. These issues can be addressed effectively by awareness campaigns. If carried out effectively, campaigns are a highly effective way of raising awareness. The success of campaigns depends on some factors. These factors include the content of campaigns, competence of awareness raising team, adequate funding and resources, utilization of various mediums, and customization of campaigns etc. Government can utilize any medium for the campaign including both print and electronic media. The best form of campaign is the one which utilizes all the

mediums effectively. For instance, it is useless to campaign via electronic media for the audience/areas where electronic media is not available. In such scenarios, governments should use the medium which is used by that audience/area and tailor the campaign accordingly. On the other hand, the advancement in technology has eased campaigns process for governments. The digital infrastructure and presence of large audience on social media platforms makes it very easy for the government to dispel its message to a wider audience. The cost of digital campaigns is also low, and few personnel are required. So, the effective use of both these mediums can facilitate government in dispelling message across the people and raising awareness. Politicians can play an important role in awareness raising campaigns as they themselves need to vote for the elections. They can leverage the vote bank by highlighting the work done in this domain of community service. Similarly, all national provincial authorities working in this domain need to establish media cells for effectively carrying out awareness campaigns.

Engaging Religious Clerics

In Pakistan, people are mostly looking towards Islamic teachings for guidance. They look towards the teaching of Quran and Holy Prophet (P.B.U.H) for any matter relating to their lives. The actions and choices made by people are highly dependent on teachings of Islam. Religious scholars play an important role in guiding Muslims on various issues. They act as opinion leaders and influence people's decisions and choices. Therefore, it is important to engage religious scholar's organ donation issue and settle the matter. Success of this policy option depends on whether consensus is achieved among Muslim scholars. It also depends on whether Muslims scholars declare organ donation as Islamic or not. If both these factors work out right, it will be very easy for government to promote organ donation. It will have a profound impact on a large segment of society as they follow the guidance of Muslim scholars. However, obtaining consensus is a daunting task. This is mainly because Muslims scholars from different sects have differing opinion about organ donation. They may also hold to their traditional beliefs. However, if government can get things right, it will be a great step. Government can engage with Muslim scholars to raise awareness, partner with religious departments, and get issued religious fatwas in the favour of organ donation.

Legislative and Institutional Support

Legislation can be a great way to promote organ donation. It gives a legal stamp to the process and legitimizes organ donation. Success of this methods depends on how acts and laws are framed. It depends on the content of these laws and acts and whether they are fulfilling the needs of organ donation process. It also depends on whether the bill gets the majority vote as it is 2/3rd majority for a bill to be passed. Similarly, there can be some legal loopholes in the process. Illegal organ trafficking also involves other countries. Their support and coordination are also important so that laws that are passed are effective in deterring dissidents. Lastly, even if the laws are passed, there

enforcement can be challenged. A passed law which is unenforced is of no use. However, if these steps are taken in right direction, legislation can pave the way for increasing legal organ donations and discouraging illegal organ transplantation. Government needs to ensure that legislations are comprehensive and cater to the needs of all stakeholders. It should also oversight the process of implementation and give adequate resources to the relevant departments. It should also collaborate with other countries, raise awareness, impose hard penalties, monitor, and evaluate the progress, and engage with NGOs and civil society. Doing all this will ensure that legislations meet their intended targets.

Capacity building of authorities

Capacity building is another important aspect of promoting organ donation and discourage illegal organ transplantation. Success of this method depends on some factors. Relevant authorities need adequate resources both tangible and intangible. They also require training of personnel and expertise of some other departments. To ensure smooth execution, they need to coordinate and collaborate with other agencies and departments. Similarly, if there is corruption in these authorities and department, the process of illegal organ transplantation may continue to flourish. If authorities are not given adequate resources, they would be unable to do their job effectively. If there is weak coordination and limited collaboration with other departments, authorities will not be able to curb illegal organ trafficking. If there is corruption and bureaucratic procedures in authorities, the intended goal of these authorities will remain unmet. Therefore, it is imperative that government provides adequate resources to authorities, train the personnel, ensure effective coordination between departments, and take measures to reduce corruption and bureaucratic procedures. If all these steps are taken, the authorities will be able to meet their intended goal. They would be able to function effectively and properly. It will also ensure that organ donations are promoted, and illegal organ transplantation is curbed.

Curbing illegal organ transplantation

Curbing illegal organ transplantation an important step towards promoting organ donation. It is imperative and will ensure that black market of organ transplantation is eliminated. It is imperative for paving the way for organ donation. The success of this method depends upon various factors. Firstly, we need to understand that illegal organ transplantation occurs in black market which is coveted. This means that is not an easy task to discover and dismantle such networks. Secondly, illegal organ transplantation involves cross-border operations. The success of these operations depends upon the coordination with the transnational agencies and their cooperation. Thirdly, gangs involved in illegal organ transplantation mostly target vulnerable segments of society. They honeytrap such people for money and get their vital organs. Such people are often unaware of the risks involved in the process and may fall prey to black market networks. Therefore, it is important that government passes legislation in this regard and oversee its enforcement as well. Government

also needs to engage with international community and organizations. Government also needs to work towards increasing coordination and cooperation with transnational agencies. Targeted awareness campaigns among vulnerable masses should also be carried out. When all these steps are taken in synchronization, government would be able to effectively tackle the problem of illegal organ transplantation.

Recommendations

Following are some recommendations to deal with improving organ availability in Pakistan:

Short-term recommendations

Awareness campaigns

Social media platforms like Facebook, WhatsApp, Twitter, TikTok, and Instagram should be utilized to increase awareness among people. Government should hire social media teams and partner with influencers to dispel messages across masses. It should also engage religious clerics to aware people of the process. It should also share the success stories of donors and recipients to increase transparency.

Educational programs

Educational programs aimed at increasing the skillset of medical students and professionals should be launched. Such programs should be enacted by professional healthcare universities and healthcare professionals.

Term of DG PHOTA

Legislation should be passed to fix the term of Director General of PHOTA. This will ensure that long-term leadership is present and can lead the various operations.

Partnership with NADRA

Authorities and government agencies should partner with NADRA. NADRA can help in creating a database where the donors' data would be present. It would help streamline the process and give numbers of donors thus addressing demand-supply mismatches.

24 hours helpline

A quick response helpline should be created that would ensure that information is readily available to both recipients and donors. 1109 is recently created in this regard.

Creating media cells:

Government should create media cells in all authorities related to organ donation. These cells would be used to raise awareness and dispel messages across masses.

Long-term recommendations

Continued legislation

It is essential to continue legislative enactments. Lawmakers should continuously pass legislation to cater to the changing needs and trends. Legislation should also be enacted to punish illegal organ transplantation.

Capacity building of authorities

Government should keep working on capacity building of authorities related to organ donation. It should continue providing them adequate funding, resources, training, and skills development programs.

Public-Private Partnerships

Government should engage with private entities and form partnerships. It should partner with private entities to increase efficiency and reduce the issue of funds.

Improving IT Infrastructure

Technology can be utilized effectively to cater to this issue. Government and relevant stakeholders should continuously upgrade IT infrastructure for effective management.

Focusing on primary prevention

Focusing on primary prevention is important to reduce the demand for organs. It is important to reduce Hepatitis B and Hepatitis C through awareness campaigns and treatments.

Organ procurement cells

The number of organ procurement cells should be increased all over the country. These cells should be established in all major hospitals so that the government is able to create a large organ donation

pool.

Agreement with international community

It is imperative that government comes to agreement with international countries and communities. This will be used to improve coordination and cooperation and thus reduce illegal organ trafficking.

Vigilance department

The government should introduce vigilance departments to curb illegal organ trafficking. This should be done at both central provincial jurisdictions.

Exhibit 1

جان سے جان بچا کر جائیں..... وسیلہ حیات بنا کر جائیں

ORGAN PROCUREMENT CELL
آرگن پروکیورمنٹ سیل

موت کے بعد اپنے اعضاء عطیہ کرنے والے افراد کی

آج ہی خود کو بطور ڈونر
پی ہوتا
سے رجسٹریشن کروائیں

رجسٹرڈ ڈونر کو باقاعدہ طور پر
ڈونر کارڈ اور سرٹیفکیٹ کا اجراء

یہ ہوتا پنجاب کے تحت

ان لائن رجسٹریشن جاری
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تمام میں اعضاء عطیہ کرنے کے لئے جان بچانے کے لئے
تمام کاتب فکر کے چیرطامہ سے متعلقہ ٹیوی کا اجراء

اب تک
اعضاء
عطیہ کرنے والے
متعدد افراد کی
رجسٹریشن مکمل

ضرورت مند اور تین افراد کو بعد از مرگ اپنے اعضاء
عطیہ کر کے عظیم انسان ہونے کا درجہ پائیں خود کو بطور ڈونر
رجسٹرڈ کروا کر انسانیت کی خدمت کریں اور ہمیشہ زندہ رہیں

حکومت پنجاب کی جانب سے پی ہوتا سب آفسز
راولپنڈی ملتان اور فیصل آباد کا قیام

مزید معلومات و اپیلانی کیلئے ویب سائٹ
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وزنٹ کریں

محنت عامہ کے تحفظ کیلئے ہمہ وقت کوشش
پنجاب بیویومن آرگن
نٹرانسپلائنٹیشن اتھارٹی

محکمہ سپیشلائزڈ ہیلتھ ٹیکنیشنز
اینڈ میڈیکل ایجوکیشن
(SHC & ME)

P
HOTA

Exhibit 2

انسانی اعضاء کی محفوظ پیوند کاری قانون کی پاسداری، سب کی ذمہ داری

وزیر اعلیٰ پنجاب کی خصوصی ہدایات پر
عوام الناس کی حقیقی معنوں میں خدمت یقینی بنانے کیلئے پنجاب ہیومن ٹرانسپلانٹیشن اتھارٹی،
انسانی اعضاء کی محفوظ اور قانونی پیوند کاری ممکن بنانے کیلئے ہمہ وقت مصروف عمل ہے



**HUMAN
ORGAN**

پی۔ ہوناسب آفسز
راولپنڈی، ملتان
اور فیصل آباد کا قیام

پنجاب ہیومن ٹرانسپلانٹیشن اتھارٹی کی جانب سے اٹھائے گئے اہم اقدامات

بعد از موت اعضاء کی بروقت پیوند کاری ممکن بنانے کیلئے آرگن پروکیورمنٹ سیل کا قیام
صوبائی اور مرکزی اودوں کے تعاون کے ساتھ انسانی اعضاء کی غیر قانونی تجارت روکنے کا مربوط نظام
انسانی اعضاء کے غیر قانونی، بکروہ دھندے میں ملوث افراد کی خلاف بلا اتیاز سلسل کارروائیاں جاری
عوام الناس میں اعضاء عطیہ کرنے کے رجحان کو فروغ دینے کیلئے تمام مکاتب فکر کے جدید علماء سے متفق فتویٰ کا اجراء

عالمی معیار کے مطابق
اعضاء کی پیوند کاری
کا مربوط نظام

عوام الناس سے اپیل ہے کہ

بعد از مرگ اعضاء عطیہ کرنے کی اپنے پیاروں کو وصیت کریں
پی۔ ہوناسے رجسٹرڈ ہسپتالوں سے ہی اعضاء کی پیوند کاری کروائیں
اعضاء کی پیوند کاری کرواتے وقت پی۔ ہوناس کی جانب سے دی گئی اہم ہدایات پمٹل کریں
زندگی انمول ہے، آج ہی انسانی زندگی بچانے کا عزم کریں

ہسپتال، کلینک یا اعضاء فری جیسے انسائٹ ڈیٹن کاروبار میں ملوث گروہ کی ذمہ داری پنجاب ہیومن ٹرانسپلانٹیشن کے
فون نمبر 7-99206046-042 پر اطلاع دیں



صحت سروسز
پنجاب ہیومن ٹرانسپلانٹیشن
SHC & MHC



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پالیسی



مستشفى كلفاء كلفاء كلفاء كلفاء
پنجاب ہیومن ٹرانسپلانٹیشن
نیشنل انسٹیٹیوٹن اتھارٹی



P
HOTA

Exhibit 3



انسانی اعضاء کی غیر قانونی پیوند کاری جان لیوا خطرہ اور قابل سزا جرم

وزیر اعلیٰ پنجاب کی ہدایات پر

صوبہ بھر میں اعضاء کی غیر قانونی پیوند کاری کے خلاف سرگرم عمل
پنجاب ہیومن آرگن ٹرانسپلانٹیشن اتھارٹی حکومت پنجاب



پنجاب ہیومن آرگن اینڈ ٹشو زائیٹ 2012 کے تحت
انسانی اعضاء کی غیر قانونی پیوند کاری اور تجارت
یاس گنگ نا قابل ضمانت جرم
10 سال قید اور 1 کروڑ روپے جرمانہ کی سزا
یاد رکھیں!



اعضاء دینے اور لینے والے (دونوں فریقین) اور پیوند کاری
کرنیوالے ہسپتال کی پی ہوٹا سے رجسٹریشن ہونا لازمی ہے
خیال رہے!

اب تک 3 ہزار سے زائد
مریضوں کو انسانی اعضاء کی
پیوند کاری کی منظوری

پی۔ ہونا سب آفسز
راولپنڈی، ملتان اور فیصل آباد کا قیام
ہمارا عزم، صحت مند اور محفوظ پنجاب

پنجاب ہیومن آرگن ٹرانسپلانٹیشن اتھارٹی
محکمہ سیشلز اینڈ ہیلتھ کیئر اینڈ میڈیکل ایجوکیشن (SHC&ME) حکومت پنجاب

ہماری ویب سائٹ www.phota.punjab.gov.pk وزٹ کریں | مزید معلومات و رہنمائی کیلئے ہیلپ لائن 1109 پر 24/7 رابطہ کریں

Exhibit 4

ارشاد باری تعالیٰ ہے

وَمَنْ أَحْيَاهَا فَكَأَنَّمَا أَحْيَا النَّاسَ جَمِيعًا

(سورۃ المائدہ آیت نمبر - 32 القرآن)



تمام مکاتب فکر کے جنید علماء کرام کے فتاویٰ جات

"قرآن و حدیث کی روشنی میں
دوسروں کو اپنی آنکھ گردے یا دیگر اعضاء وغیرہ
کا عطیہ کرنا صدقہ جاریہ ہے
اور جو لوگ اس کار خیر میں حصہ لیتے ہیں
اس کی وصیت کر کے جاتے ہیں
وہ اللہ تبارک و تعالیٰ سے اس عمل کا اجر پائیں گے"

علامہ محمد خان لغاری
(مذہبی سکالر)

"انسان اپنی زندگی میں وصیت کر سکتا ہے
کہ میرے اعضاء کو ضرورت ہوں تو کسی
کو میرے مرنے کے بعد عطیہ کیے جاسکتے ہیں۔
اعضاء کی بیخون کاری
وصیت کے ساتھ انسانی جلائی کیلئے
اسلام میں اجازت ہے۔"

حافظ علامہ کاظم رضا نقوی
(مذہبی سکالر)

قرآن و حدیث کی روشنی میں
اعضاء کو عطیہ کرنا صدقہ جاریہ ہے
اور یہ سب آپ بعد از مرگ بھی کر سکتے ہیں۔
کسی بھی انسان کیلئے آنکھوں، گردوں یا دیگر اعضاء کا
عطیہ کر کے آپ کئی افراد کو نئی زندگی دے سکتے ہیں۔

مولانا سید محمد عبدالخبیر آزاد
خطیب امام بادشاہی مولانا، چیئر مین مجلس علماء پاکستان، چیئر مین رویت ہلال کشی

حکومت پنجاب کی جانب سے

ہسپتال کی رجسٹریشن، اعضاء عطیہ کرنے، لینے اور اعضاء کی پیوند کاری سے متعلق
شکایات کے اندراج کیلئے آن لائن ویب پورٹل کا اجراء

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پنجاب ہیومن آرگن ٹرانسپلانٹیشن اتھارٹی میں پبلک ریلیشن سیل کا قیام

رابطہ نمبر: 042-99206046-7 (صبح 9 سے شام 5 بجے)

معکمہ سپیشلائزڈ ڈیپلٹھ کیئر
اینڈ میڈیکل ایجوکیشن
(SHC & ME)



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ٹرانسپلانٹیشن اتھارٹی



Perspective Media (Half Page Ad)

Appendix

Table 2: Logical Framework for Organ Donation in Pakistan

| Component | Narrative Summary | Indicators | Means of Verification | Assumptions |
|-------------------|--|--|---|---|
| Goal | Increase the rate of organ donations in Pakistan. | 1. Percentage increase in organ donations year over year. | National organ donation directory | |
| Purpose | Improve public awareness, trust, and acceptance of organ donation. | 1. Percentage decrease in misconceptions about organ donation. | Post-campaign surveys | Organ donation misconceptions are primarily due to lack of awareness. |
| | | 2. Increase in public trust in medical care for organ donations. | Feedback and perception surveys | Effective implementation of proposed interventions. |
| Outputs | 1. Effective awareness campaigns targeting religious and general misconceptions. | 1. Number of increase organ donations per year in percentage. | Campaign reports | Adequate resources and support for campaigns. |
| | 2. Improved medical care for organ donation and transplantation. | 1. Number of trained medical professionals. | Training reports and medical certifications | Training programs are effective and up to date. |
| | 3. Establishment of robust IT infrastructure and national databases. | 1. Number of IT systems and databases established. | IT implementation reports | Technical expertise and resources are available. |
| Activities | 1. Conduct religious dialogues and awareness campaigns. | 1. Number of dialogues and campaigns held. | Event logs and attendance sheets | Religious leaders are open to dialogues. |
| | 2. Train medical professionals on organ transplantation procedures and care. | 1. Number of professionals attending training. | Training attendance sheets | Training resources and experts are available. |
| | 3. Develop and implement IT systems and databases. | 1. Milestones achieved in IT implementation. | IT progress reports | Technical challenges are manageable. |
| Inputs | 1. Funding for campaigns, training, and IT development. | 1. Amount of funding allocated and utilized. | Financial reports | Sufficient funding is available and allocated. |
| | 2. Expertise in medical training, IT development, and campaign management. | 1. Number of experts engaged in each domain. | Contracts and collaboration agreements | Qualified experts are available and willing to collaborate. |

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