



NOVUS ORGAN DONATION WEBSITE

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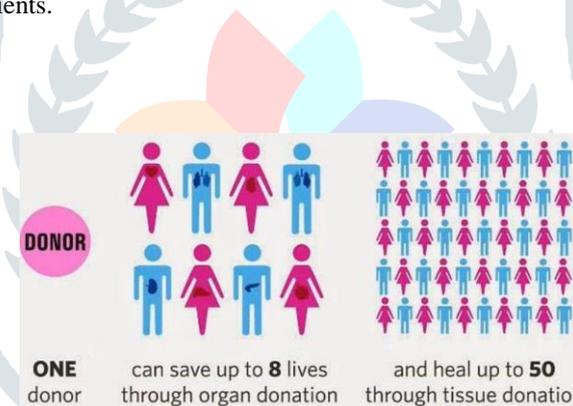
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Abstract : Organ donation is the procedure of retrieving an organ legally with the purpose of being capable of medically assist a person in need. Consent is given both with the aid of using the donor even as they're nonetheless alive, or after demise with the aid of using their Next of Kin. First the organ is recovered, or 'harvested,' earlier than being transplanted into the recipient in need.

Organ transplantation has become the optimal treatment for many end-stage organ-specific diseases. NOVUS is an initiative to encourage people that they can save 8 lives, we strive to honor the gift of donated organs by making full use of those organs to save and improve the quality of life of recipients.

I. INTRODUCTION



To apprehend organ donation, it's far first vital to apprehend organ transplantation. A transplant is a medical procedure wherein a dysfunctional organ or tissue in someone is changed with that of a healthful person, thereby restoring its function. In certain cases, in spite of the awesome advances in medicine, transplantation is the most effective alternative. Transplants dramatically enhance a patient's nice of life and supply them a brand-new risk at life.

It is obvious that a transplant takes place only if an organ is available from a donor. While most transplanted organs come from deceased donors, patients can also receive organs from living donors. A living person can donate a kidney, liver organs, lungs, pancreas, intestines, blood and continue to live a normal life.

The need for organ donors has never been greater. It is estimated that more than half a million Indians are in dire need of an organ transplant.

In 2019, for promoting deceased organ donation, the G.O.I implemented the National Organ Transplant Programme with a budget of ₹149.5 crore (US\$20 million)

India made the second most transplants in the world in 2019 (after the United States), but we still lag far behind nations like Spain (35.1 pmp), the United States (21.9 pmp), United Kingdom (15.5 pmp). Due to the large number of inhabitants our donation rate is only 0.65 per 1 million inhabitants (2019).

II. WHY INDIA NEEDS TO DONATE ORGANS

Every year in India:

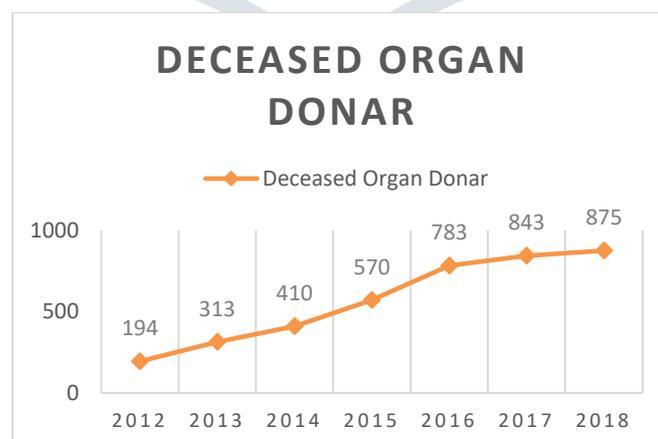
- 500,000 deaths due to unavailability of organs.
- 200,000 people have died of liver disease.
- 50,000 people have died of heart disease.
- 150,000 people are waiting for a kidney transplant, but only 5,000 have gets one.
- 1million people suffer from corneal blindness and await transplant



According to India's 2015 statistics, only 5,000 transplants were completed in response to the demand for kidney transplants of Rs 175,000. Of the 50,000 people who died of end-stage liver disease, only 1,000 received a transplant. These statistics are even more troublesome for organs such as the heart and lungs.

Most organ donations in India come from living donors. Cadaver donations make up only about 5 percent of all donations.

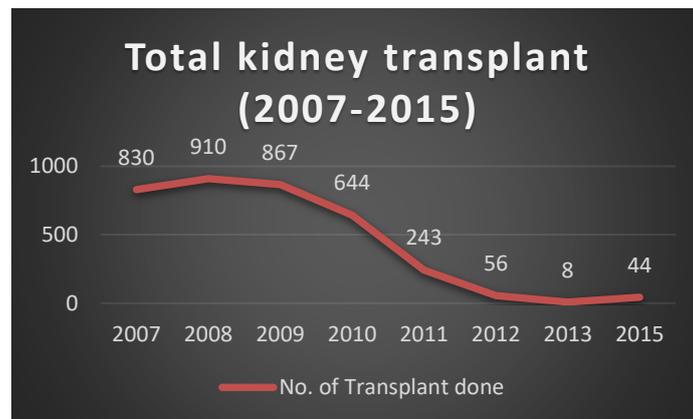
There is a large gap between the number of organs needed and the number of organs available. 2 lakh people are waiting for a kidney transplant, but only 10,000 have a kidney transplant, which is just 5 percent. 50,000 people are waiting for the heart, but in 2017 only 339 heart donations from the deceased were observed.



III. KIDNEY TRANSPLANT DATA

The data available on the Indian Transplant Registry website provides the following important findings:

- The number of kidney transplants has declined since 2004. This may be due to an incomplete report by the register.
- The number of kidney transplants performed annually is approximately 1,200 (2004), which represents almost 2% of the total kidney transplant needs in Japan.



IV. CHALLENGES IN ORGAN TRANSPLANTATION

During #MoreToGive campaign, Walkathon 2018 was conducted, NDTV interviewed few experts and asked them about the challenges in organ transplant, following are their views and few solutions in order to bridge the gap of demand-supply.

A. Not-Accepting Brain Death as Death

Organs can be taken from patients who have been declared brain dead, but doctors find that loved ones often confuse brain death with coma, which can be reversed.

According to experts, families often believe that brain-dead patients are still alive because of their stable organs and vital signs. This makes us reluctant to agree to donate organs.

B. The Challenge of Involving the Transplant Coordinator

According to Dr. Shroff, recognition and consent to donations is not always a major concern. The bigger problem is that hospitals cannot identify, certify, and treat patients with brain death.

It is estimated that the hospital's transplant coordinator increases conversion rates and that 6 out of 10 patients agree to donate. For this reason, hospital intensive care units must be equipped with equipment to identify, certify, and treat patients with brain death. Only then will the process of persuading the family begin.

C. Delay in harvesting organs after death

One of the biggest obstacles is the time it takes to retrieve an organ after the patient has been declared brain dead. Donor families who have lost relatives are often worried about delays in performing the patient's last rites. For multiple organ donors, it takes about 3-4 hours for an organ to be collected, and autopsy may increase the delay. For multiple organ donors, multiple teams are also mobilized to perform kidneys, liver, pancreas, tissues, and more.

D. Expectation for possible organ rejection

According to certain studies, technically, even if the surgery is successful, the patient can always face rejection and the body rejects the newly transplanted organ. Rejection negatively impacts the success of the transplant, as the body repels new organs as if they were viruses or bacteria, just like any other harmful outpatient. The immune system makes proteins called antibodies that move to the transplanted organ and try to kill it.

In India, where medical services seem expensive to the average person, the ability to afford a transplant exceeds the average person's means, especially in private hospitals. The additional risk that an organ does not benefit the patient is a negative add-on. Therefore, the majority of patients and patients involved withdraw due to the quotient of uncertainty associated with the amount of financial waste it brings. In a sense, this is also related to the fact that health insurance in India is not yet plentiful. Most people don't even know how they can arrange money. Cumulatively, this leads to disappointment in many ways.

V. ORGAN TRANSPLANTATION LAWS IN INDIA

Human organ transplantation is a major achievement in the fields of medicine and technology. However, the number of patients in urgent need for transplants exceeds the number of donors available, and legislation needs to be enacted to prevent illegal activities related to the commercialization of organ transplants.

Kidney transplants were first done in India in the 1970s. Transplant activity increased in the 1980s and early 1990s, but was primarily limited to living-donor kidney transplants in certain urban areas. With the advent of new clinics and the increasing availability of trained personnel, kidney transplant activity has slowly increased. However, this led to the famous kidney trafficking in India in the 1980s and was widely reported in the media. Foreign patients flocked to India to receive transplants from paid donors.

Recognizing the ongoing kidney fraud in India, the central government established a committee in 1991 to produce the underlying report of the law governing organ transplants across India. It was also done to better define the term "brain death".

In 1994, The Transplantation of Human Organs Act (THOA) was established by the Government of India. In addition, the Human Organ Transplant Regulations, which came into force in 1995, were last amended in 2014 to expand the scope of donations and include tissue transplant under organ transplant category. The law made the commercialization of organs a criminal offense and legalized the concept of brain death in India. This made it possible to donate the deceased by collecting organs from the brainstem dead.

VI. FRAMEWORK

A. Xampp Server

The data frame is essential for collecting all information in one place, including data from all workers or corridor of the club. Frames are generally veritably suitable for mortal relief for storehouse in stock or for other uses. To outline a support frame with specific end pretensions to make it easier for guests, the frame provides a Xampp Server interface with a database that uses the "PHP" language as a shoptalk or guideline for the frame. Erected using. The proposed frame is a standalone frame.

This new frame employed database idea to store all the data which related with area operation forms. This frame concentrated around database idea which is further solid. All learner information will be kept in a devoted database. By exercising this database idea, many issues, for illustration, information mischance and detriment could be stayed down from.

B. Objective

The purpose of this study is to:

- Provide users with an online interface.
- Extend the effectiveness of records management.
- Save time required to access and send patient records.

C. Methodology

XAMPP is a lightweight Apache distribution that makes it easy for developers to set up a local web server for testing purposes. Everything you need to set up a web server, including server applications (Apache), databases (MySQL), scripting languages (PHP), is all available in one easily extractable file. XAMPP is compatible with many different platforms. That means the software is compatible with Linux, Mac, and Windows.

Most web server deployments use the same components as XAMPP, so you can easily move from a local test server to a live server. XAMPP is a popular Apache distribution that is easy for beginners to use. It contains a variety of common web development technologies in a single package, making it a great choice for those just starting out in web development. The PHP and MySQL Developer Toolbox is great for students who are developing and testing applications in these languages. XAMPP is available for download in two different packages: the full package and the Lite package.

VII. IMPLEMENTATION

We implemented this project by creating a website using HTML, CSS, and JavaScript. This website can be used from any device mobile or desktop. Once a user opens the webpage, he/she can perform various task such as, he/she can gain knowledge about organ donation and transplant. They can get information on how to keep their diet healthy which can help them prevent any kind of organ failure. There are separate sections prepared for such kind of knowledge you can access them by clicking “Know” button the navigation bar.

If any citizen wishes to volunteer for organ donation, there is a section for applying to become a donor. By clicking the link, they will be redirected to a google form page, there they have to fill the form and submit it to be recognized as a donor.

There is a section for events that will be organized in the future. Anybody can take part in those events; this would eventually help us to spread awareness of organ donation to the citizens.

VIII. FUTURE WORK

Currently we operate only in the kidney donation field. But in the future, we are planning expand our reach towards all the other organ donation as well. We are planning to improve this platform in such a way that a patient in need of organ transplant would no longer need to wait for month or years just to get a match.

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