



# State Organ and Tissue Transplant Organization (SOTTO), Gujarat

## Innovation (State)

**W**ith the rising burden of non-communicable diseases, there is a rising number of patients who suffer from irreversible organ ailments involving the Kidneys, Liver, Heart. Their outcome can be improved with the opportunity of organ transplant surgery. However, only 2-3% receive such lifesaving transplants and more than 5 lakh die due to a lack of organ donations. To bridge this gap, the state developed a cadaver transplant programme in 2005 and further strengthened it by augmenting the entire ecosystem in 2019 with the establishment of SOTTO Gujarat.

## Issue

**Predominance of Public Sector Hospitals In Cadaver Transplants:** Public sector hospitals have been playing a pivotal role in organ donation/retrieval and cadaveric transplants. Gujarat has ensured world-class facilities at its Autonomous NABH accredited public sector institutes of excellence – Institute of Kidney Diseases and Research Center (IKDRC) & U

N Mehta Institute of Cardiology & Research Centre (UNMICRC). Gujarat is the only state to conduct Cardiac Transplants in the public sector and over 570 Robotic Kidney Transplantations in the government setup.

### **Equitable Care with Affirmative Discretion:**

Gujarat leads in Cadaveric Organ Donation & Transplants in the Public sector through a strong ecosystem, with SOTTO Gujarat at its pivot, to ensure that the most under-privileged have access to otherwise prohibitively expensive life-saving transplant services along with provisions to prioritize the vulnerable section of the society i.e. women & children.

### **Sensitivity & Inclusive Approach:**

Public financing mechanisms and enabling policy environment help to ensure affordability of transplant services, which is almost free of cost to the poor; through initiatives like including transplantation in PMJAY-MA, free transplants for children under RBSK-School Health, CSR support & Philanthropic Donations & at one-third the cost of the private sector for paying patients.



**Transparency:** An online platform named Gujarat Network for Cadaver Organ Sharing (GNCOS) has been created for sharing of cadaver organs. In accordance with the prescribed guidelines and mandated parameters, Software based Organ allocation is done as per the medical severity of the disease and based on the best matching of the organs, irrespective of the financial status of the patients. Donation & Transplantation

data is made available in the public domain.

**Integration of Service, Education & Research:** The state has set up the Gujarat University of Transplantation Sciences (GUTS), the world's first & only University for Transplantation and Allied Sciences established in 2015 for providing medical care, medical - paramedical academic and research facilities. Through various dedicated

courses related to transplantation, medical and paramedical HR with the necessary skills are made available. This enables the sustainability, efficiency, and effectiveness of the Infrastructure.

**Comprehensive & Scientific:** Gujarat Deceased Donor Organ and Tissue Transplantation (G-DOT) guidelines have laid down detailed scientific criteria for scoring and organ allocation that ensures best matching, optimal utilization of donated organs, and effective long-term outcomes.

## Impact

**Social Impact:** Ensuring access to state of art lifesaving transplant services for marginalized and vulnerable populations. The number of cadaver kidney transplants in women and children increased more than two-fold since the establishment of SOTTO.

**Medical Impact:** Increase in the number of Cadaver Organ donations and transplants leading to a paradigm shift in favour of Cadaver transplants with the Live : Cadaver ratio improving from 4:1 (1997-2018) to 2.5:1 (2019-2022). The ratio in Public sector hospitals is 1.5:1.

**Public Health Impact:** Universal Health Coverage which includes availability, accessibility, and affordability of high-end lifesaving medical care. Public sector hospitals leading in retrieval (42%) as well as cadaveric transplants (68%).

**Economic Impact:** Otherwise prohibitively expensive treatment, is made affordable and even provided free of cost to the needy through the convergence of various schemes and funding mechanisms. 2369 transplants were done under the PMJAY-MA scheme and 254 under RBSK School Health.

Overall, the initiative has enhanced the availability and accessibility of effective state-of-the-art care, especially for the marginalized ones, to save countless lives. The latest technology at public sector hospitals has enabled 5 Cardiac transplants and 570 Robotic kidney transplants.