

THE ANGEL APP OF ORGAN DONATION, TRINIDAD AND TOBAGO.

Technology

Gloria R Mootoo	The Uwi School Of Nursing, Faculty Of Medical Sciences. St Augustine Campus, Trinidad And Tobago.
Esther S Daniel*	The Uwi School Of Nursing, Faculty Of Medical Sciences. St Augustine Campus, Trinidad And Tobago. *Corresponding Author
Edward Sumitra	Curriculum Associates, Massachusetts, Usa.

KEYWORDS

Mobile health (mHealth) has emerged as a practical, all-purpose treatment option for the healthcare system, as a result of the quick and widespread proliferation of smartphone availability and usage.¹ There is a global prevalence of 13.4% for CKD stages 1–5 and 10.6% for CKD stages 3–5.²

In Trinidad and Tobago, prevalence and incidence of DM and HT is growing rapidly (1:4 persons likely to have 1 or both) and is most common cause of chronic kidney disease.³ High prevalence of chronic diseases in Trinidad and Tobago has led to increased number of persons with organ failure.⁴ In 2011, 15.1% of total population in Trinidad and Tobago were affected by non-communicable disease, in particular, renal disease.⁵ In 2013, ~500 nationals needed renal transplantation with numbers increasing by 40% per year.⁶ Demand > supply: Scarcity of organs for transplantation is a major public health problem worldwide.⁷

Over the past ten years, there has been a decrease in the number of live donor transplants, and waitlisted patients report significant difficulties finding a live donor. Up to eight lives can be saved by one donor. There is an increasing understanding of the necessity to standardize processes using Quality Improvement (QI) as a result of medical complexity and societal significance of organ donation.¹ Apps are created for dead/live organ donation protocols after neurological determination of death/ circulatory determination of death.¹

A study by Cox reported that majority of candidates who used an app reported it to be "good" or "excellent" with regard to the installation process (82.9%), readability (88.6%), simplicity (70.6%), clarity (87.5%) and the information provided (85.3%).⁸

The main objective of the smartphone application is to boost organ donation rates in Trinidad and Tobago. Adults frequently own and use smartphones.

To register, a donor currently has to download, complete and mail in the form, which is a lengthy registration process. The number of registrations can be considerably increased by utilizing an App. The Organ Donor Phone app makes it much easier for potential donors to register.

The Authors deemed it fit to create an App Prototype called The Angel App of Organ Donation of Trinidad and Tobago. The main questions that the Angel App answers for donors are:⁹

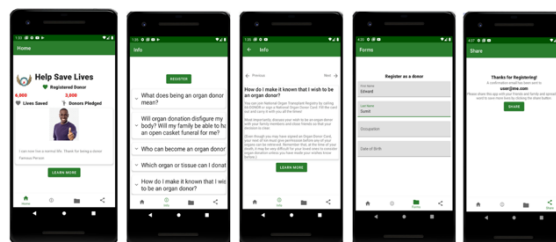
1. How can I easily locate information about how to help?
2. How can I readily consent to give my organs?
3. How can I get updates on organ donation?
4. How do I know if I donated already?
5. How can I share organ donor information with others?

Organ transplantation is one of the medical miracles of the 20th century and has prolonged and improve the lives of patients worldwide.¹⁰

The significant scientific and medical advances of the committed health professionals and the immeasurable generosity of organ donors and their families have made transplantation not only a lifesaving therapy by the quintessence of human solidarity.¹¹ A more preventative and agile approach by the State is imperative on the use of The Angel

App to promote organ donation.

The Angel App of Organ Donation, Trinidad and Tobago



REFERENCES

1. Silva A, Arora S, Dhanani S, Rochon A, Giorno LP, Jackson E, et al. Quality improvement tools to manage deceased organ donation processes: A scoping review. *BMJ Open*. 2023;13(2). doi:10.1136/bmjopen-2022-070333
2. Hill NR, Fatoba ST, Oke JL, Hirst JA, O'Callaghan CA, Lasserson DS, et al. Global prevalence of chronic kidney disease – a systematic review and meta-analysis. *PLOS ONE*. 2016;11(7). doi:10.1371/journal.pone.0158765
3. Chadee D, Seemungal T, Pinto Pereira LM, Chadee M, Maharaj R, Teelucksingh S. Prevalence of self-reported diabetes, hypertension and heart disease in individuals seeking state funding in Trinidad and Tobago, West Indies. *Journal of Epidemiology and Global Health*. 2013;3(2):95. doi:10.1016/j.jegh.2013.02.002
4. Empowering communities to prevent and self-manage Noncommunicable Diseases in Trinidad and Tobago [Internet]. World Health Organization; [cited 2023 May 11]. Available from: <https://www.who.int/about/accountability/results/who-results-report-2020-mtr/country-story/2021/trinidad-and-tobago>
5. Population statistics trinidad and Tobago [Internet]. 2023 [cited 2023 May 11]. Available from: <https://cso.gov.tt/subjects/population-and-vital-statistics/population/>
6. Elcock-Straker BJ, Lynch S. Regional Report on Organ Transplantation in Trinidad and Tobago. *Transplantation*. 2020;104(9):1758–61. doi:10.1097/tp.0000000000003251
7. Transplantation [Internet]. World Health Organization; [cited 2023 May 11]. Available from: <https://www.who.int/health-topics/transplantation>
8. Kumar K, King EA, Muzaale AD, Konel JM, Bramstedt KA, Massie AB, et al. A smartphone app for increasing live organ donation. *American Journal of Transplantation*. 2016;16(12):3548–53. doi:10.1111/ajt.13961
9. Organ transplant [Internet]. [cited 2023 May 11]. Available from: <https://health.gov.tt/services/organ-transplanting>
10. The current status of organ donation and transplantation around world – with the dilemma of Organ Trafficking and Transplant Tourism [Internet]. [cited 2023 May 19]. Available from: <https://www.pas.va/en/publications/acta/acta24pas/delmonico.html>
11. Ghods AJ. The history of organ donation and transplantation in Iran. *Experimental and Clinical Transplantation*. 2014;12(Suppl 1):38–41. doi:10.6002/ect.25liver.129