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A Global Strategy to Increase Organ Donation at Hospital and Jurisdictional Levels: A Road Map for Hospital Administrators and Clinicians – The Transplant Québec Experience Base on the Organizational Framework for Organ Donation and Tissue Donation Services

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Introduction: In collaboration with the Québec Hospital Association, Transplant Québec published the *Organizational Framework for Organ Donation and Tissue Donation Services* as a reference to provide hospitals a structured approach to develop more effective organ donation and tissue donation services. Administrators, physicians and health professionals, supported by the ODO, are the key stakeholders able to improve the culture of organ and tissue donation in an institution. Improved performance will better meet the needs of patients waiting for a transplant.
Methods: The Framework and tools were created in phases over 5 years: a *Standardized Organ Donation Procedure* (SODP); an Audit System based on *International Classification of Deceases* (version 10) implemented with the help of hospital archivists and Transplant Québec donor coordinators (4 indicators); all linked to hospital accreditation (Accreditation Canada), quality processes and online educational materials. The key components of the Framework will be presented and modelling of the approach will be discussed in relation to improving the number of donors and number of organs. Commitment, defined roles and responsibilities, specific procedures for organ donation and tissue donation, and the education of clinical teams are essential elements.
Results: Beginning in 2012, donor referrals increased by 34 % and family refusals decreased by 30 %. During this period, the number of donors increased from 120 to 172 a year, while the total number of transplants rose by 50%. Additionally, the number of DCD donors increased by 400%.

Over 5 000 health professionals (mostly critical care) completed online education on the SODP. The number of hospitals using the Audit system increased from 12 to 35. Future gains and next steps will be considered. The role of the ODO in sustaining and moving change forward is crucial to these improved results.
Conclusion: There remains untapped potential to improve organ donation from the administrative and clinical perspectives at both the hospital and system levels. Our approach demonstrates the effectiveness of providing standardized guidance for hospital administrators combined with educational resources for health care professionals and an audit system in improving performances. The 5-year trend of these improvements highlights the sustainability of the interventions for improvement of a stronger organ donation culture in institutions.

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Effect of Reimbursement System of Social Security Institution on Transplantation Numbers in Turkey: A Retrospective Research

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Introduction: Transplantation surgeries have been reimbursed by the public social security system without taking patients' out of pocket spending since 2008, in Turkey.[1][2] Although this policy made a visible increase on the number of transplantation, it didn't force transplantation from deceased donors and transplantation teams preferred to perform transplantation from living donors. Therefore, this study aimed to objectively evaluate the changes in the number of transplant operations according to amount of reimbursement which was provided by the system.
Methods: The data were collected from the web sites of the relevant public authorities.[3][4] Reimbursement amounts -those were got from The Communique on Health Implementations published by the Social SecurityInstitute- were calculated from Turkish Lira to US Dollar according to US Dollar/Turkish Lira annual averages published by the Central Bank of the Republic of Turkey. The kidney and liver transplants (living donors, deceased donors and total) carried out in the country in the relevant years were obtained from the Ministry of Health Organ and Tissue Transplantation Department. The collected data were transferred to the computer and analyzed.
Results: It was found that the number of kidney transplants increased from 775 in 2004 to 3414 in 2016, also the number of liver transplants increased from 245 to 1341 in the same period. In this period, the amount of the payment made by the Social Security Institution to the hospitals for the kidney transplantation was increased from 1200 TL (984 $) to 52276 TL (17328 $), while the amount of payment for liver transplantation was increased from 2100 TL (1440 $) to 129848 TL ($ 43025). It was determined that there is a very strong

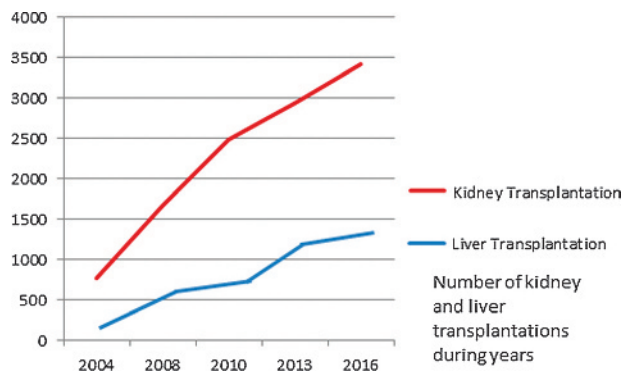


FIGURE 1.

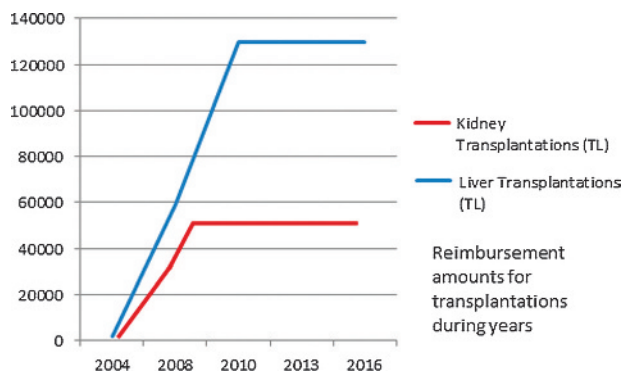


FIGURE 2.

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and statistically significant correlation between the increase of the reimbursement amount and the increase of the number of living donor kidney transplants (r: 0.973, p <0.01).

Conclusion: This study found that there was a high and positive correlation between the numbers of living donor kidney transplants according to the increase in the reimbursement amounts. It was not the same for the kidney or liver transplantations from deceased donors. Because of governments have responsibility to increase transplantation numbers based on deceased donors[5][6][7], this policy has to be revised and improved in order to make a similar increase on the number of transplantation from deceased donors.

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Public Knowledge and Attitude Toward Organ Donation in Tianjin, China

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Objective: To investigate the knowledge of organ donation and brain death, attitude toward living and deceased organ donation, and opinion on organ donation, the influencing factors of relevant issue were evaluated in this cross-section study.

Methods: An original questionnaire was distributed to 6000 respondents (age ≥ 18 years and lived in Tianjin for more than 5 years) who were randomly selected in Tianjin City from November 2015 to January 2016. With the adoption of stratified sampling method and random cluster sampling method, 5868 valid questionnaires (98.7%) were recovered.

Results: Totally 5868 respondents participated in this study with acceptable knowledge of organ donation but poor acquaintance of legislation situation and brain death. Approximately 74.9% of them expressed the willingness to donate their organs, while 23.4% of them opposed to organ donation. 42.0% of the assentients would donate their own organs to anyone who meet the medical criteria, while 57.0% of them required organ donation designation. A total of 2502 respondents (42.6%) held an open-minded attitude to complete organ-donation consent form when they received the driver's license. Besides, 57.1% of respondents considered that economic compensation should be offered and the main sources of the compensation should be government funding and special public welfare fund. Multivariate logistic regression model revealed that the age of 40~59 years (OR=1.680 [1.046-2.699], P=0.032; OR=1.741 [1.044-2.903], P=0.034, respectively), annual household income ≥ 20000 yuan (OR=0.656 [0.513-0.839], P=0.001), have the willingness to donate blood (OR=0.324 [0.275-0.383], P<0.001), knowledge of correct conception of brain death (OR=0.823 [0.688-0.984], P=0.033) were the influencing factors of the attitude toward organ donation.

Conclusions: Public knowledge of organ donation, brain death and available laws were poor. Besides, a tendency that the traditional culture was less common was found.

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