A new law for allocation of donor organs in Israel

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Israel's system for organ donation has been based, since its inception in 1968, on a model in which organs for transplantation are retrieved from brain-dead donors only after consent has been obtained from the appropriate first-degree relatives. This consent is needed even if the potential donor has expressed a wish for posthumous organ donation by signing a donor card, which is a government form that allows people to voluntarily indicate their wish to donate specified organs after their death.[1] The consent rate for organ donation in Israel, defined as the proportion of actual donors of total number of medically eligible brain-dead donors, has consistently been 45% during the past decade, much lower than in most western countries. Similarly, the proportion of adults with donor cards in Israel is only 10%. In January, 2008, 864 candidates were listed for kidney, heart, lung, or liver transplantation, but only 221 patients were given transplants from deceased donors that year.[2]

In two formal surveys of public attitudes towards organ donation, which were done by the Israel National Transplant Centre in 1999[3] (n=758) and 2004[4] (n=417), 55% of individuals in each survey indicated their willingness to donate organs in exchange for prioritisation in organ allocation. In both surveys, the proportion of individuals who chose this option was much greater than the proportions choosing the second and third preferred options, which were direct (26%) or indirect financial compensation (25%), respectively, for organ donation. The basis of this public reaction is mainly a perceived need to rectify the unfairness of free riders—people who are willing to accept an organ but refuse to donate one—[5]as practised by a small yet prominent proportion of the Israeli public. These individuals are opposed to the idea of brain death and organ donation, yet they do not abstain from becoming candidates for transplantation when they need an organ for themselves. The results of the surveys of attitudes of Israeli people resemble those noted in similar surveys done in the USA in 1990[6] and 2004,[7] in which 52% and 53% of responders, respectively, ranked a preferred status in organ allocation as their top-ranked option for compensation for organ donation.

With the grim national statistics for organ donation, and the knowledge that relatives of potential donors who were holders of donor cards have consistently given their consent for organ donation, a national plan for prioritisation of organ allocation was devised to increase the number of individuals with donor cards in the hope that such an increase would lead to an increase in organ donation.

The plan to increase the national number of individuals who have a donor card by giving priority in organ allocation to transplant candidates who had signed a donor card before their listing date was first suggested to the Israel National Transplant Council (INTC) in March, 2006. This council established a special interdisciplinary committee—including leading ethicists, philosophers, legal advisers, representatives of the main religions, transplant physicians, surgeons, and coordinators—to review the various relevant ethical, legal, medical, and social issues. After long discussions, the committee recommended to the INTC that any candidate for a transplant who had a donor card for at least 3 years before being listed as a candidate will be given priority in organ allocation. Similar priority will be granted to transplant candidates with a first-degree relative who was a deceased organ donor and to any live donor of a kidney, liver lobe, or lung lobe who subsequently needs an organ. Because the new plan includes, for the first time, implementation of non-medical criteria in organ allocation, legal advisers said the policy could not be implemented by administrative rules and required legislation by the Israeli Parliament.

After the approval of these recommendations by the INTC, the Ministry of Health has asked Israel's Parliament to incorporate the prioritisation plan into the new bill for organ transplantation. After a long debate within the Israeli Parliament, clause 9(B)4 was added to the recently approved law for organ transplantation (panel).[8]

The Israeli law has increased the number of beneficiaries for organ allocation from the signatory on the donor card to the first-degree relatives (parents, children, sibling, or spouse) on the basis of past experience, whereby relatives who were holders of the card had always given their consent to organ donation even if the donor did not sign it, yet reduced the number of beneficiaries by excluding living-directed donors. This restriction, which contradicts the INTC's original recommendation, is being prepared by the Ministry of Health for an appeal for reconsideration by Parliament, because we strongly believe all living donors should be granted prioritisation in organ allocation.

On the basis of a new law, the steering committee for Israel's National Transplant Centre decided to set up three allocation priority categories with different levels for each transplanted organ (table). On the one hand, a transplant candidate with a first-degree relative who has signed a donor card would be given half the allocation priority that is given to a transplant candidate who has signed his or her own donor card. On the other hand, a transplant candidate with a first-degree relative who donated organs after death or who was an eligible live non-directed organ donor would be given allocation priority 1·5 times greater than that given to candidates who have signed their own donor cards. Among candidates with an equal number of allocation points, organs will be allocated first to prioritisation-eligible candidates.

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Candidates for heart, lung, or liver transplantation who need an urgent transplant because of their serious condition (status 1 for heart, ventilated candidates or those with a lung allocation score >70 and status 1 or those with model for end-stage liver disease score >30) will continue to be given priority for organ allocation as usual, irrespective of their eligibility status on the basis of their new prioritisation category. However, if two such candidates needing an urgent transplant are equally suitable for a donated organ, then the one who qualifies for one of three prioritisation categories will be given the organ.

A candidate younger than 18 years or legally invalid for the purpose of signing a donor card (as a result of physical or mental disability) will retain their priority status for organ allocation versus an adult who merits priority. In the first year of the new plan, everyone who has signed a donor card, including listed active transplant candidates, will be given prioritisation rights already after a waiting period of 1 year.

A massive multilingual, multimedia educational campaign, designed and aimed at all levels of education in the public, will precede the implementation of the new policy to gain the most public attention and avoid complaints of discrimination by people who did not participate because they were unaware of the new rules.

Panel: **Organ transplantation law[8]**

"The steering committee of Israel's National Transplant Center will establish rules for organ allocation that take into account the following considerations:

- Consent given by a person during his life to donate an organ following his death, accords both the person and his first degree relatives priority in organ allocation.
- An organ donated by a person following his death accords his first degree relatives priority in organ allocation.
- An organ donated by a person during his life not for a designated recipient accords him or his first degree relatives priority in organ allocation."

This detailed prioritisation protocol, which has been extensively and thoroughly discussed with multidisciplinary experts, expresses the wish of everyone involved to keep to a minimum the life-endangering results of a policy change on one hand while increasing to a maximum the true essence of prioritised status on the other hand so that a reliable campaign could be successfully launched to encourage individuals to sign the donor card.

The new organ allocation policy, which provides an incentive for individuals to agree to help each other, resembles the reciprocal altruism noted in nature as described and defined by Trivers[9]—ie, "each partner helping the other while he helps himself"; the altruist benefits because in time he "is helped in turn". These altruisms in nature do not constitute moral imperatives because they do not necessarily equate with what ought to be, although Wilson and Wilson[10] noted that "internally altruistic groups out-compete selfish groups". The new policy violates the definition of pure altruism, which requires no quid pro quo reward. Moreover, it violates the ideal that medical care should be allocated on the basis of medical need only and not extraneous factors such as a patient's ethnic origin, wealth, or behaviour. However, most people who sign an organ donor card will never need an organ themselves and in all likelihood will ultimately receive no material reward for their promised donation and therefore although they might not be purely altruistic, they remain predominantly altruistic. Moreover, if this policy results in the procurement of more organs for transplantation, then it promotes a different, but nonetheless important, goal of medicine—achievement of maximum health. Mutually exclusive ethical imperatives compete, leading to ethical tension; we believe utility tips the balance in favour of the new policy.

The Israeli policy applies to everyone with no exemptions, even to people who believe they should not donate organs because of religious beliefs[11] or deeply held philosophical convictions. The observances and rituals of a religion are not incumbent on people of a different

	Kidney*/kidney-pancreas	Lungs (LAS points)†	Heart‡	Liver (MELD points)§
Candidate has a donor card	2	10	Top of status 2 candidacy list after category 3 candidates	2
Candidate's first-degree relative holds a donor card	1	5	Top of status 2 candidacy list after category 1 candidates	1
Candidate's first-degree relative donated organ after death, or candidate or first-degree relative was a non-designated organ donor while alive	3·5	15	Top of status 2 candidacy list	3·5

*Allocation score is assigned from 0 to 18, and takes into account the candidate's age, waiting time, panel-reactive antibody concentration, and HLA match with the donor. †Lung allocation score (LAS) is assigned from 0 to 100; it is calculated from a series of formulas that take into account the various patient variables that affect survival in the next year without a transplant and the projected length of survival during the first year after the transplant. ‡An individual with a status 2 for heart transplantation is a candidate who does not meet the criteria for status 1A or 1B—namely, the individual is not dependent on mechanical circulatory support, continuous mechanical ventilation, or continuous infusion of one high-dose intravenous inotrope. §Model for end-stage liver disease (MELD) score is from 6 to 40; it is calculated by use of a formula with the measurements of creatinine, bilirubin, and international normalised ratio.

Table: **Allocation priority categories and score for different organs**

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faith; however, the morality of a religion, in the opinions of its adherents, should be universal. True believers in the immorality of organ donation after brain death would not be affected by this policy because if organ donation after brain death is wrong, then it should also be wrong for their potential organ donors and hence they should not give or accept an organ.

The new Israeli organ allocation policy has been previously suggested but not yet implemented anywhere on a national level, except for the United Network for Organ Sharing policy to give living donors of organs priority to receive a transplant from a deceased donor should they ever need one[12] and the little experience gained by LifeSharers, a US voluntary network of organ donors whose members promise to donate their organs on their death, with fellow members given priority.[13] Thukral and Cummins[14] were the first to propose the transplant card policy whereby the card holder would agree to be an organ donor and in turn organs would be supplied to holders of a donor card in the order in which they signed up. The United Network for Organ Sharing in 1993[15] assessed the preferred status policy, and recommended "wider societal discussion before considering concrete plans for implementation". Peters,[16] Muyskens,[17] Eaton,[5] Jarvis,[18] Gubernatis and Kliemt,[19] Steinberg,[20] and Siegal and Bonnie[21] have all advocated giving priority in organ allocation to those who have previously consented for organ donation on their death.

Since all Israeli citizens who are candidates for organ transplantation are fully reimbursed under the National Medical Insurance Law, and are listed by Israel's National Transplant Centre, which also handles the lists of all holders of a donor card and allocates all donated organs, the new policy will be a unique opportunity to gather national data and note the consequences of what has previously been only theoretical speculation. The extensive multimedia campaign is planned to be launched before the new policy is put into practice in January, 2010. The effect of the new policy on organ donation will be monitored and a public report will be issued 2 years after implementation. If this new policy achieves the goal of obtaining more organs, everyone will benefit and people who do not sign a donor card, though disadvantaged, will nonetheless be better off than they would have been without the policy. If undesirable consequences emerge, such as no increase in organ donation, or an increase in candidates' mortality rates, then policy and legal adjustments will be necessary.

Contributors
JL spearheaded the new policy and wrote the Viewpoint. TA led the project, did the literature search, and co-wrote the Viewpoint. GG co-lead the project. DS co-wrote the discussion.

Conflicts of interest
We declare that we have no conflicts of interest.

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