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THE DOHA MODEL OF ORGAN DONATION AND TRANSPLANTATION: THINKING BEYOND CITIZENSHIP

DR DOMINIQUE MARTIN* & DR RIADH A S FADHIL**

This paper reviews the policy and practice of organ donation and transplantation in Qatar that has developed since January 2011. The important features of the Doha Model (the 'Model') are explored, including: (i) all legal residents of Qatar have an equal right to access deceased donor organs and transplantation regardless of their citizenship status; (ii) no prioritisation in organ allocation is given to Qatari citizens; (iii) a multilingual and multicultural education and promotional program about donation has been implemented to engage the diverse national communities resident within Qatar; (iv) financial incentives or fungible rewards for living or deceased donation are prohibited. The ethical framework of this policy will be examined in the light of the national self-sufficiency paradigm, which advocates reciprocity and solidarity among resident populations seeking to meet all needs for transplantation equitably. We review some preliminary evidence of the impact of the Model with respect to engagement of a highly diverse multinational population in a donation and transplantation program, and argue that the Model may inform policy and practice in other countries, particularly those with non-citizen resident populations.

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I INTRODUCING THE DOHA MODEL

Our aim in Qatar is to become self-sufficient as a country and every single one of us must reflect seriously, as our religious duty demands, on how we can play a part in this effort.

H R H Sheika Moza Bint Nasser

Patron of Qatar's Organ Donation Program¹

While kidney transplantation was first performed in Qatar in 1986, and legislation enabling deceased donation was enacted in 1997,² there was little organ donation activity within Qatar before 2009. In this year, the Doha Donation Accord ('DDA') was developed in conjunction with the Declaration of Istanbul Custodian Group and the international Transplantation Society. The Accord established a new ethical framework for practice consistent with the World Health Organisation's ('WHO') *Guiding Principles on Human Cell, Tissue and Organ Transplantation*,³ and the *Declaration of Istanbul on Organ Trafficking and Transplant Tourism*.⁴ The resultant Doha Model of organ donation and transplantation (the 'Model') is distinguished by the fact that neither citizenship nor financial status plays a determining role in policy governing the allocation of organs, eligibility to access the waiting list, access to living donation and transplantation services, or organ donor recruitment.

Like many of the Gulf Peninsula countries, Qatar is a wealthy state that has enjoyed rapid development in recent decades and substantial population growth, largely as a result of migration by foreign workers on temporary residency visas.⁵ In the Census of 2010, the total population greater than 15 years of age measured 1 466 851 people, of

¹ Habib Toumi, 'Shaikha Moza registers as organ donor', *Gulf News* (online), 9 August 2012 <<http://gulfnews.com/news/gulf/qatar/shaikha-moza-registers-as-organ-donor-1.1059826>>.

² *Human Organs Transplants Law* no 21, cited in Yousef Al-Maslamani et al, 'Potential brain death organ donors-challenges and prospects: A single center retrospective review' (2014) 25(3) *Saudi Journal of Kidney Diseases and Transplantation* 589, 590.

³ World Health Organisation, *WHO Guiding Principles on Human Cell, Tissue and Organ Transplantation*, UN Doc WHA63.22 (21 May 2010).

⁴ Participants, 'The Declaration of Istanbul on Organ Trafficking and Transplant Tourism' (2008) 74(7) *Kidney International* 845.

⁵ Citizenship is not readily obtained by non-citizen residents, regardless of the duration of their stay in the country. Most low-income migrant workers, who form the majority of the current labour force, have a mean duration of stay of about 5 years: Andrew Gardner et al, 'A Portrait of Low-Income Migrants in Contemporary Qatar' (2013) 3(1) *Journal of Arabian Studies* 1, 5.

whom approximately 10 per cent were Qatari citizens.⁶ All legal residents of the country,⁷ including migrant workers and their families, are entitled to free healthcare by law,⁸ and are eligible to join the single waiting list for organ transplantation. There are no financial incentives or material rewards for donation, and no priority for organ allocation is awarded for citizenship or financial status.

Since the introduction of national reforms, there has been demonstrable progress in donation and transplantation in Qatar. Most notably, there has been a dramatic fall in travel abroad for commercial transplantation by Qatari citizens, and an increase in deceased donation from an average of one donor annually to 10 donors — providing 25 organs for transplantation in three years from January 2011 to December 2013.⁹ Further, since its inauguration in August 2012, the national organ donor registry has grown to include 19 391 registrants, whose combined citizenship as Qatari residents represents 108 countries.¹⁰

In this paper we review the features of the Doha Model and evaluate its initial impact on donation and transplantation activities in Qatar. In particular, we explore the strategic approach and ethical framework governing the Model in the light of the national self-sufficiency paradigm advocated by the WHO.¹¹ In doing so, we discuss the influential role played by citizenship status internationally in allocation of deceased donor ('DD') organs and in eligibility for transplantation services. We contend that use of citizenship

⁶ The total number of Qataris within this population is identified as 146 262: *Census 2010 Demographic Characteristics, Qatari population [15+] by age, sex and marital status, Table 4.2*, Qatar Information Exchange <<http://www.qix.gov.qa>>.

⁷ A legal resident of Qatar is defined as a citizen or any non-citizen with legal residency status, the latter being usually linked to employment or a familial relationship with a sponsored worker; see *Law No 4 of 2009 Regarding Regulation of the Expatriates Entry, Departure, Residence and Sponsorship* (Qatar) <<http://www.almeezan.qa/LawArticles.aspx?LawTreeSectionID=9696&lawId=2611&language=en>>.

⁸ See *Law No 7 of 1996 Organizing Medical Treatment and Health Services within the State* (Qatar) <<http://www.almeezan.qa/LawPage.aspx?id=4094&language=en>>; *Law No 7 of 2013 on the Social Health Insurance System* (Qatar) <<http://www.almeezan.qa/LawPage.aspx?id=4770&language=en>>; *Law No 14 of 2004 on the promulgation of Labour Law* (Qatar) <<http://www.almeezan.qa/LawPage.aspx?id=4094&language=en>>.

⁹ Hanan Al Kuwari et al, 'The Doha Donation Accord Aligned With the Declaration of Istanbul: Implementations to Develop Deceased Organ Donation and Combat Commercialism' (2014) 97(1) *Transplantation* 3, 4.

¹⁰ Donor registry data is provided courtesy of Qatar's National Organ Donation Centre and is correct as of 31 March 2014. Of note, the registry has since grown to number 19 733 registrants at 1 May 2014. All information reported here concerning donation and transplant activities and programs in Qatar is provided by the Qatar Organ Donation Center (Hiba), of which one of the authors, Professor Fadhil, is Director.

¹¹ Francis L Delmonico et al, 'A call for government accountability to achieve national self-sufficiency in organ donation and transplantation' (2011) 378(9800) *The Lancet* 1414.

status as a criterion for access to, or allocation of, transplantation services and resources is insufficient to protect and promote equity in donation and transplantation. Unreflective reliance on citizenship status as a marker of societal inclusion — and hence enfranchisement in a national donation and transplantation program — will impair efforts to achieve national self-sufficiency, and risks violating respect for the dignity of non-citizens who may provide organs for transplantation. In conclusion, we suggest that the Doha Model not only addresses these concerns, it also provides encouraging evidence to suggest that implementation of similar models, consistent with the self-sufficiency paradigm, may help to improve donation of organs in other multinational and multicultural countries.

A Development of the Doha Model

Prior to 2011, organ donation within Qatar was negligible. Although access to dialysis for patients with end-stage renal disease ('ESRD') was provided to citizens and non-citizens,¹² the majority of patients who received renal transplants obtained them by travelling abroad.¹³ Patients who underwent commercial transplantation in countries such as the Philippines and Pakistan suffered high rates of mortality and morbidity.¹⁴ Concerns about these harmful transnational activities and the inability to meet transplant needs safely and effectively within Qatar prompted the development of the DDA in 2009. The implementation of national reform measures, including the creation of the Qatar Organ Transplantation Centre ('QCOT') in 2011, and the Qatar Organ Donation Centre (known as Hiba) in August 2012.¹⁵ A multifaceted approach to the challenges of meeting transplant needs has been incrementally, but nonetheless rapidly, established. Of note, transplantation of solid organs within Qatar currently involves only livers and kidneys,¹⁶

¹² Mazin M T Shigidi et al, 'Peritoneal dialysis, an expanding mode of renal replacement therapy in Qatar' (2011) 22(3) *Saudi Journal of Kidney Diseases and Transplantation* 587, 590.

¹³ A Rashed and O Aboud, 'Renal transplantation: seventeen years of follow-up in Qatar' (2004) 36(6) *Transplantation Proceedings* 1835, 1836.

¹⁴ R A S Fadhil et al, 'The outcome of commercial kidney transplantation: a Qatari study on preoperative and post-transplant follow-up records of patients having commercial renal transplantation abroad: 837' (2008) 86(2S) *Transplantation* 292, 292; R A S Fadhil et al, 'Trichosporon fungal arteritis causing rupture of vascular anastomosis after commercial kidney transplantation: a case report and review of literature' (2011) 43(2) *Transplantation Proceedings* 657, 657.

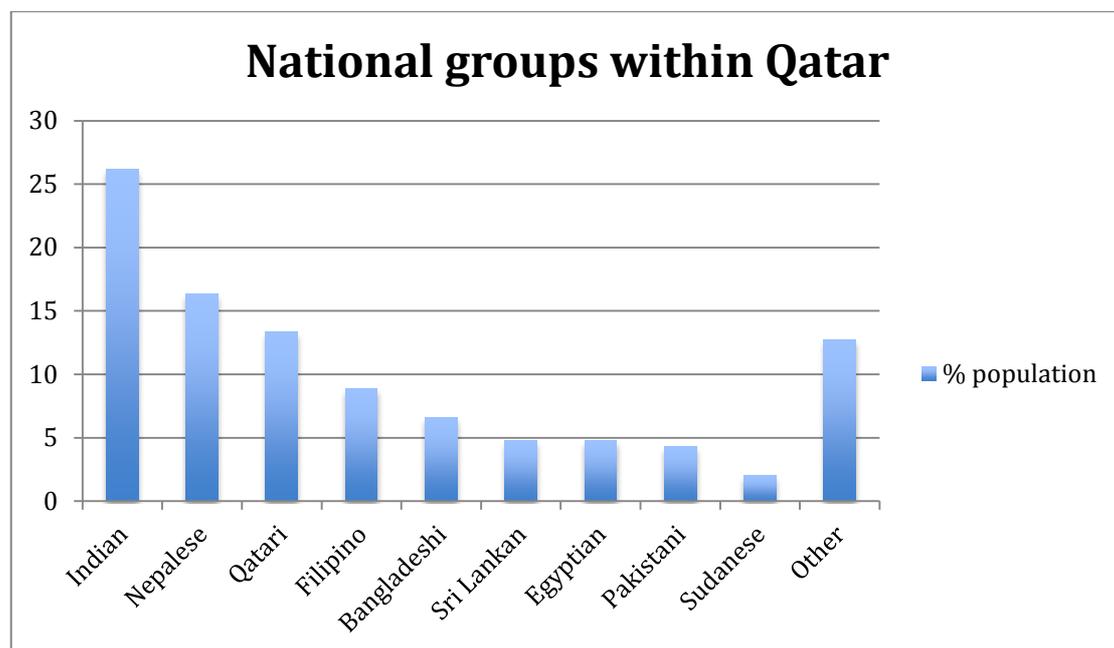
¹⁵ Hanan Al Kuwari et al, above n 9, 3.

¹⁶ Although there are plans to develop pancreatic transplantation in 2015, the relatively small population means that programs of cardiac or lung transplantation are unlikely to be feasible in Qatar until more systematic regional organ sharing programs are developed.

the only form of living organ donation is that of kidneys, and deceased donation only occurs following neurological determination of brain death.

In August 2012, the wife of Qatar's emir became one of the first to join the new national organ donor registry. After signing, Sheikha Moza Bint Nasser declared: 'Our aim in Qatar is to become self-sufficient as a country and every single one of us must reflect seriously, as our religious duty demands, on how we can play a part in this effort.'¹⁷ Sheikha Moza's appeal was notably not addressed specifically to Qataris, but to all within Qatar. The demographics of Qatar's population are such that meeting Qatar's needs for transplantation in a timely manner would be unfeasible if donors and recipients were defined by Qatari citizenship status. Although precise details of Qatar's demographics by nationality are unavailable, rough estimates suggest that the majority of nationalities are Indian (26 per cent), Nepalese (16 per cent), Qatari (13 per cent), and Filipino (9 per cent).¹⁸ (See Figure 1).

Figure 1: Estimated nationalities of Qatar's resident population



¹⁷ Habib Toumi, 'Shaikha Moza registers as organ donor', *Gulf News* (online), 9 August 2012 <<http://gulfnews.com/news/gulf/qatar/shaikha-moza-registers-as-organ-donor-1.1059826>>.

¹⁸ Population nationality estimates used in data analysis within this paper were obtained from information published from the following source: Jure Snoj, 'Population Qatar' *BQDoha.com* (online) 18 December 2013 <<http://www.bqdoha.com/2013/12/population-qatar>>; the total population data from this website, which does not include estimates of nationalities known to represent significant groups within Qatar such as Egyptians, Moroccans and Yemenis, equates to 1 983 262 people. The number of Egyptian expatriates is believed to be similar to that of Sri Lankans, hence we have used the estimated Sri Lankan figure of 100 000 people in our data analysis.

Rather than simply expanding the potential donor pool to include all residents of Qatar while restricting citizen access to transplantation, Qatar's health authorities and leaders have chosen to pursue genuine self-sufficiency — striving to meet transplant needs for all without regard for citizenship status in promoting donation or allocating organs. Consequently, the Doha Model of donation and transplantation must engage with a dynamic culturally, linguistically, and socioeconomically diverse multinational population; it requires development of innovative strategies to overcome the unique challenges this population presents. As in other countries, implementation of new policies and practices, and thus the achievement of self-sufficiency, will take time. The principles of the Doha Model, as evidenced in the DDA, and particularly its overarching commitment to equity in pursuing the goal of self-sufficiency, provide a foundation to guide progress and a framework for national responsibility and accountability.¹⁹

B *The Doha Donation Accord*

The DDA aims to:

[P]romote self-sufficiency in organ and tissue donation and transplantation in Qatar, by increasing donation and combatting transplant commercialism, through the implementation of Qatari law 21/1997 and of international best practice standards and the recommendations of the *World Health Organisation Guiding Principles on Human Cell Tissue and Organ Transplantation*, the *Declaration of Istanbul on Transplant Tourism and Organ Trafficking*, the *Amsterdam Forum on Care of the Live Kidney Donor*, and the *Vancouver Forum on Care of the Live Organ Donor*.²⁰

The core features of the Accord are as follows:

1. All legal residents of Qatar, including non-citizen migrant workers, have a right to access transplant services, including enlistment on the national waiting list for DD organs where medically suitable for transplantation;
2. DD organs are equitably allocated to waitlisted patients, without regard for citizenship, religion, gender, ethnicity, or financial status;
3. All residents of Qatar are encouraged to join the national donor registry;

¹⁹ Francis L Delmonico et al, above n 11.

²⁰ The Doha Donation Accord (revised 2014) is pending publication on the Hamad Medical Corporation website <<http://organdonation.hamad.qa/en>>.

4. All families of potential deceased donors are routinely offered the opportunity to discuss organ donation regardless of their nationality;
5. To remove barriers to living related donation for non-citizens residing in Qatar, financial and social support may be provided to enable travel to Qatar by prospective living related donors ('LRD') who have undergone preliminary screening in their country of origin;
6. Living donors resident within Qatar are assured of follow-up care and insured against complications arising from donation. They also receive a priority in the event of later requiring organ transplantation;
7. Consistent with national legislation,²¹ the use of financial incentives for recruitment of potential donors and trade in human organs is strictly prohibited.

C Clarifications and Contextual Background to the Provisions of the Accord

The provisions of the Accord must be considered in the context of broader social welfare provisions within Qatar and its public healthcare system, which is organised by the Hamad Medical Corporation ('HMC').²² In particular, it is important that standard entitlements of non-citizen residents are not confused with provisions of the Accord that would be conditional upon organ donation. First, all legal residents of Qatar, including migrant workers, are entitled to health insurance which employers are required to provide.²³ Second, Qatari regulation assures the transfer of deceased migrant worker bodies to their country of origin.²⁴ Third, a social welfare program at HMC, in association with Qatar charities, provides assistance where required to patients and their families. This assists in securing long-term medical care, supply of medications, and financial

²¹ *Qatari Human Organ Transplants Law no 21 for the year 1997* (Qatar) <<http://www.gcc-legal.org/MojPortalPublic/LawAsPDF.aspx?opt&country=3&LawID=2838>> [Fadhil trans, <<http://www.declarationofistanbul.org/resources/legislation/460-quatar-human-organs-transplants-law-no-21-for-the-year-1997>>].

²² Hanan Al Kuwari et al, above n 9.

²³ See *Law No 7 of 1996 Organizing Medical Treatment and Health Services within the State* (Qatar) <<http://www.almeezan.qa/LawPage.aspx?id=4094&language=en>>; *Law No 7 of 2013 on the Social Health Insurance System* (Qatar) <<http://www.almeezan.qa/LawPage.aspx?id=4770&language=en>>; *Law No 14 of 2004 on the promulgation of Labour Law* (Qatar) <<http://www.almeezan.qa/LawPage.aspx?id=4094&language=en>>.

²⁴ *Law No 14 of 2004 on the promulgation of Labour Law* (Qatar) <<http://www.almeezan.qa/LawPage.aspx?id=4094&language=en>> art 57.

support during residency in Qatar and sometimes following the return home of expatriates. For example, following a formal socioeconomic evaluation, social services provide support to eligible families of all patients who die within HMC hospitals, including families resident abroad.

Concerns about fulfilment of legal obligations by employers of foreign workers, and potential abuse of workers' human rights in Qatar and other Gulf Cooperation Council countries, have been raised in recent years. A recent study found, for example, that 56 per cent of low-income migrant workers in Qatar had not received a health card.²⁵ While Qatar authorities have committed to improving the treatment of workers, there are additional provisions within the country and HMC that help to ensure that expatriates will not be disadvantaged in seeking access to transplantation, receiving care in the event of critical illness or injury, or the economic status of their families exploited at the time of their death so as to procure consent for organ donation.

Legislation requires that healthcare is provided in the event of emergency, and where admission of patients is required, without fees or charges.²⁶ Thus, any individuals presenting without a healthcare card would receive treatment if critically ill. In the event of a presenting patient requiring organ transplantation, a legal resident would be added to the transplant list regardless of whether they were in possession of a health care card. Further, while the team at the Organ Donation Centre may directly refer families of critically ill patients to welfare services for assistance as part of their routine care, such referrals and provision of welfare benefits are unrelated to donation decisions — a point that is made clear to families. Between January 2011 and 31 May 2014, the donation team had contact with the families of 98 patients diagnosed with brain death in HMC intensive care units. Welfare services determined that 11 of these families required financial support. Only four of the 18 families who gave consent to donation during this period received welfare benefits.²⁷ In Section IV, we evaluate the Doha Model's impact on donation and transplantation activities in Qatar, and further discuss potential concerns about implementation of the DDA and challenges in reducing inequities in

²⁵ Gardner et al, above n 5, 10.

²⁶ *Law No 7 of 1996 Organizing Medical Treatment and Health Services within the State* (Qatar) <<http://www.almeezan.qa/LawPage.aspx?id=4094&language=en>>.

²⁷ Note that only 13 of these then became utilised donors. Information concerning the number of deceased donors and Intensive Care Unit patients referred to welfare services was directly obtained from the Organ Donation Center's 2014 internal audit of potential deceased donors, which was conducted by one of the authors of this paper, Professor Fadhil.

practice. First, however, we review the traditional influence exerted by citizenship status on access to transplantation, so as to explore the significance of the Doha Model's principled commitment to social inclusion and equity.

II THE ROLE OF CITIZENSHIP IN ORGAN DONATION AND TRANSPLANTATION

Citizenship — or an equivalent legal status in the form of permanent residency rights that encompass healthcare entitlements comparable to citizens — has long been considered a valid criterion for use in determining access to transplantation services and human organs for transplantation, particularly organs provided by deceased donors. Reports of access to domestic transplantation resources by foreign citizens frequently raise public and professional concerns, suggesting a prevalent norm and expectation in many countries of foreign citizen exclusion.²⁸

Surprisingly, a number of countries such as the United States, Australia, and Canada in theory permit — or fail to explicitly exclude — the provision of access to DD organs for foreign citizens, including those who reside abroad.²⁹ A survey of member states of the Council of Europe found the majority of these countries restrict access of non-residents to transplantation services and waiting lists for DD organs.³⁰ However, nearly a third of respondent countries reported having policies in which 'non-national, non-resident individuals [may pay] for their own medical treatments and [have] access to the cadaveric waiting list'.³¹ In practice, however, the number of foreign nationals legally obtaining access to organ transplants in the European Union and the United States

²⁸ See, eg, Elizabeth Buggins et al, 'Allocation of organs to non UK EU residents' (Report, Department of Health, London, 31 July 2009) <<http://www.bts.org.uk/Documents/Publications/Buggins%20Report%20-%20ALLOCATION%20OF%20ORGANS%20TO%20NON%20UK%20EU%20RESIDENTS.pdf>>; M L Volk et al, 'Foreigners traveling to the US for transplantation may adversely affect organ donation: A national survey' (2010) 10(6) *American Journal of Transplantation* 1468.

²⁹ R Bruni and L Wright, 'Sharing organs with foreign nationals' (2011) 21(1) *Progress in Transplantation* 78, 81; of note, foreign nationals are more frequently explicitly excluded from access deceased donor kidneys.

³⁰ In this study, this category was defined as inclusive of citizens and non-citizens resident abroad, tourists, and illegal residents.

³¹ C Carella et al, 'Transplantation of non-nationals and non-residents in the countries of the Council of Europe: results of a survey conducted in the context of the initiatives of the European Committee on Organ Transplantation (CD-P-TO)' (2012) 17(1) *Newsletter Transplant* 84, 86.

represents a very small proportion of transplant recipients, in particular those using DD organs.³²

Despite evidence that some countries provide compassionate access to transplantation for specific groups of non-citizens resident abroad,³³ in recent years there has been increasing recognition of inequalities in access for non-citizens who reside within countries.³⁴ In this section, we briefly discuss the arguments supporting use of citizenship as a criterion for access to transplant services or allocation of DD organs, and the ethical implications of such criteria in the context of increasing globalisation.

A Why Consider Citizenship When Determining Access to Transplants?

Access to public healthcare services by non-citizens is customarily limited. However, such restrictions often consist merely of additional financial barriers for non-citizens rather than explicit exclusions or conditions of access that may be encountered in transplant policy. Donation and transplantation services are often organised at the national level, particularly deceased donation programs, and public campaigns designed to motivate donation highlight the benefits of transplantation for the national community. Recent emphasis on the pursuit of "national" self-sufficiency in donation and transplantation reinforces this notion of nationally framed programs.³⁵ Such appeals reflect the idea of a DD pool that is defined by a shared national identity. Where

³² A number of factors determining access to a national, provincial, or state waiting list may additionally disadvantage non-citizens, eg, greater financial barriers: see, eg, A M Goldberg, M Simmerling and J E Frader, 'Why nondocumented residents should have access to kidney transplantation: arguments for lifting the federal ban on reimbursement' (2007) 83(1) *Transplantation* 17.

³³ See, eg, C Cantrelle et al, 'Évolution de l'accès à la greffe rénale en France des patients étrangers ou résidant outre-mer' (2012) 105(2) *Bulletin de la Société de pathologie exotique* 115; R C Minnee et al, 'Ten-year results of the trans-Atlantic kidney transplant airlift between the Dutch Caribbean and the Netherlands' (2011) 25(2) *Clinical Transplantation* 302; M Ishikawa et al, 'The management and long-term results of Japanese pediatric liver transplant recipients' (1994) 24(5) *Surgery Today* 403.

³⁴ M C Fortin and B Williams-Jones, 'Should we perform kidney transplants on foreign nationals?' (2013) *Journal of Medical Ethics* <<http://jme.bmj.com/content/early/2013/11/25/medethics-2013-101534.full>>; Bruni and Wright, above n 29; E M Meslin, K R Salmon and J Eberl, 'Eligibility for organ transplantation to foreign nationals: the relationship between citizenship, justice, and philanthropy as policy criteria' in Keith Wailoo, Julie Livingston and Peter Guarnaccia (eds), *A Death Retold: Jessica Santillan, the Bungled Transplant, and the Paradoxes of Medical Citizenship* (University of North Carolina Press, 2006) 255; A K Glazier, G M Danovitch and F L Delmonico, 'Organ Transplantation for Nonresidents of the United States: A Policy for Transparency' (2014) 14(8) *American Journal of Transplantation* 1740.

³⁵ See, eg, Francis L Delmonico et al, above n 11; M G Kim et al, 'Operational and regulatory system requirements for pursuing self-sufficiency in deceased donor organ transplantation program in Korea' (2010) 24(3) *The Journal of the Korean Society for Transplantation* 147; S A H Rizvi et al, 'A Renal Transplantation Model for developing countries' (2010) 11(11) *American Journal of Transplantation* 2307.

membership of this national pool is assumed to consist of citizens, inclusion of non-citizens may be perceived as a threat to self-sufficiency and equity.

Fears of foreign citizens obtaining access to domestic resources and services are fuelled by reports of international "transplant tourism". Evidence from the global market in human organs reveals relatively wealthy patients traveling abroad to purchase organs from the poor in countries such as Pakistan, India, and the Philippines.³⁶ The injustice of this trade in organs from the living is exacerbated by the fact that transplantation in these destination countries is rarely accessible to the poor. Those least likely to receive a transplant in the event of need are those most likely to become a source of organs in the global marketplace. In advocating greater equity in the distribution of risks and benefits of transplantation within and between nations, anthropologist Nancy Scheper-Hughes described this 'division of the world into organ buyers and organ sellers' as 'a moral tragedy'.³⁷

Less commonly, public fears are expressed that wealthy foreigners may travel to more developed countries and obtain DD organs provided by the public.³⁸ In Colombia, circumvention of laws nominally giving priority to citizens and legal residents in the allocation of DD organs allegedly resulted in more than 10 per cent of organs being allocated to non-resident foreign citizens.³⁹ The purchase by, or allocation of organs to, foreigners, who usually pay considerable fees for transplantation services — even if there is no outright payment made for an organ as such — is considered suspect, especially given that no countries enjoy a surplus of organs available to meet their own population's needs for transplantation. Citizenship is thus used as a proxy marker of entitlement to share in organs donated by the members of a particular community: the nation-state.

Prioritisation of domestic citizens in the allocation of organs procured from a public pool of deceased donors, or exclusion of foreign nationals altogether, is supported by the moral intuition that a social community providing these precious resources deserves to

³⁶ Dominique E Martin and Francis L Delmonico, 'Ethical Issues and Transplant Tourism' in M R Weir and E V Lerma (eds), *Kidney Transplantation* (Springer, 2014) 69, 70.

³⁷ Nancy Scheper-Hughes, 'The Ends of the Body: Commodity Fetishism and the Global Traffic in Organs' (2002) 22(1) *SAIS Review* 68, 79.

³⁸ Buggins et al, above n 28; Volk et al, above n 28.

³⁹ More rigorous implementation of policy subsequently resulted in significant reduction in foreign transplants; Ashley Hamer, 'Foreigners benefit from transplants in Colombia by filing law suits', *Colombia Reports* (online) 23 October 2009 <<http://colombiareports.co/foreigners-benefit-from-transplants-in-colombia-by-filing-law-suits/>>; Ben Hockman, 'Colombia's Organ Transplant Tourism Continues to decline: Govt', *Colombia Reports* (online) 23 March 2011 <<http://colombiareports.co/colombian-organ-transplants-for-foreigners-continues-to-decrease-govt/>>.

share in their benefits. Foreigners accessing DD organs may be considered "free riders", taking advantage of citizen efforts to provide these resources without contributing.⁴⁰ Concerns about "free riders" also apply to citizens who choose not to donate,⁴¹ however resident citizens have the option of changing their mind and eventually donating. In contrast, non-resident foreigners are unlikely to ever contribute to the DD pool for practical reasons, and thus appear to have little claim on publicly donated organs on the grounds of reciprocity or solidarity; they wish to receive organs without being willing and able to give.

With the exception of Israel and Singapore,⁴² most countries are unwilling to penalise citizens who fail to register their willingness to become a DD or who choose to "opt-out" of donation; many are willing to share access to foreign patients on compassionate grounds in some circumstances.⁴³ Nevertheless, the fact that non-citizens are considered external to the potential pool of DD is commonly held to justify the prioritisation of citizens' needs for transplantation; if no suitable recipient for a DD organ can be found among citizens, it may be shared with foreign patients. After all, even citizens who choose not to donate may contribute to society in other ways that might be regarded as sufficient grounds for a claim upon DD organs as a public resource, whereas non-citizens resident abroad are unlikely to contribute socially or economically to society. Despite minimal emphasis on reciprocity and potential civic obligations to donate until recent years,⁴⁴ arguments discouraging provision of organs to non-citizens have long been dominated by such reciprocity and equity concerns.⁴⁵ Yet, in recent

⁴⁰ See D S Davis, 'Organ transplants, foreign nationals, and the free rider problem' (1992) 13(4) *Theoretical Medicine* 337.

⁴¹ See, eg, Gil Siegal, Neomi Siegal and Richard J Bonnie, 'An Account of Collective Actions in Public Health' (2009) 99(9) *American Journal of Public Health* 1583.

⁴² J Lavee et al, 'Preliminary marked increase in the national organ donation rate in Israel following implementation of a new organ transplantation law' (2013) 13(3) *American Journal of Transplantation* 780.

⁴³ See above n 34; O Shibolet et al, 'Air transportation of patients with end-stage liver disease to distant liver transplantation centers' (2005) 11(6) *Liver Transplantation* 650.

⁴⁴ See K Hoeyer, S Schicktanz and I Deleuran, 'Public attitudes to financial incentive models for organs: a literature review suggests that it is time to shift the focus from "financial incentives" to "reciprocity"' (2013) 26(4) *Transplant International* 350; G den Hartogh, 'Priority to registered donors on the waiting list for postmortal organs? A critical look at the objections' (2011) 37(3) *Journal of Medical Ethics* 149; Caroline Guibet Lafaye and Henri Kreis, 'From altruistic donation to conditional societal organ appropriation after death' (2013) 16(2) *Ethical theory and Moral Practice* 355.

⁴⁵ See, eg, A L Friedman and E A Friedman, 'Illegal aliens are not entitled to federally funded organ transplants' (2007) 83(1) *Transplantation* 21; further arguments may be proposed in favour of discrimination against noncitizens, including (i) practical or economic concerns about the burden of foreign patients on the domestic healthcare system; (ii) fears that citizens would be discouraged from

years it has become evident that use of citizenship status to determine eligibility for organ transplantation and access to publicly donated organs may be ethically problematic. In particular, the contribution made by non-citizen members of a given population to the DD pool has been highlighted as a justification for allowing such members to share in the benefits of deceased donation.⁴⁶

B Citizenship is Insufficiently Representative of a Potential Donor Population

Although examples such as that of Qatar's majority non-citizen population are particularly striking, globalisation has resulted in dynamic and diverse populations in many countries. Expatriate workers, tourists, legal and illegal immigrants, and refugees now move across the world in ever increasing numbers. Consequently, many people now make their lives in a country in which they are not recognised as citizens, or even residents.

Where an organ procurement and transplantation program exists, the people who reside within that healthcare jurisdiction are, theoretically at least, all potential organ donors, regardless of their residency or citizenship status.⁴⁷ Although foreigners may not be offered the opportunity to register their donation preferences, and their families may not be approached to make a decision about donation after their death, to our knowledge there are no jurisdictions in which non-citizen status is considered to exclude individuals from organ donation. Well publicised cases of tourists who died while traveling abroad and whose organs were donated after death highlight the rarity of such events, but demonstrate the gratitude and enthusiasm with which foreign DD organs may be accepted.⁴⁸

Far more common are the contributions of individuals who make their lives in a country where they are not granted citizenship status. In the United States, for example, it is estimated that unauthorised foreign nationals ('aliens') number 11.7 million, with a further 1.7 million legal but temporary residents, consisting of students, temporary

donating if organs were received by foreigners (Volk et al, above n 28); (iii) in the absence of an organ surplus, allocating organs to non citizens is likely to reduce the number of citizen lives saved through transplantation, and carries the alleged risk of a catastrophic influx of foreign patients seeking access to transplantation: Fortin and Williams-Jones, above n 34.

⁴⁶ Fortin and Williams-Jones, above n 34, 3.

⁴⁷ Organ procurement is only possible in specific circumstances of death, and not all individuals are medically suitable to become donors at the time of their death.

⁴⁸ See, eg, Reg Green, *The Nicholas Effect: A Boy's Gift to the World* (Booktango, 2012).

workers, and so on.⁴⁹ All unauthorised migrants, many legal temporary residents, and any visitors without legal permanent residency or citizenship status are considered non-resident aliens. As a group that roughly represents 4.7 per cent of the total US population, and 5.2 per cent of the labour force,⁵⁰ non-resident aliens also represent at least 0.3 per cent of deceased donors within the US.⁵¹ It is likely that most of these non-resident aliens who contribute to the pool of DD organs are unauthorised *residents*, in the lay sense of the term: a person who resides and makes their life in a particular place, spending most of their time participating in a range of ordinary human activities within that place. Individuals may work, raise families, pursue education, or engage in private or public social activities with other persons residing in the same area. In contrast, the estimated 0.3 per cent of recipients of DD organs in the United States who are identified as non-resident aliens are likely to be those who travel there specifically for the purpose of accessing transplantation.⁵²

C Dignity, Donors, and Citizenship Status

Members of a resident population — defined not according to legal status, but to their presence within a country in which they make their lives — are, practically speaking, potential organ donors. Where these societal members are not citizens, but are nevertheless considered potential donors, their exclusion from or de-prioritisation in organ allocation represents a fundamental inequity. Fortin and Williams-Jones further suggest that the contributions made by many non-citizens to society, for example through provision of essential labour, might entitle them access to transplantation.⁵³

Where these individuals and their communities are encouraged to become donors, or indeed actively recruited as donors — whether living or deceased — yet denied equitable access to a life-saving transplant on account of their citizenship status, this implies a lack of respect for their moral status. They become, in effect, a source of organs

⁴⁹ Jeffrey S Passell, D'Vera Cohn and Ana Gonzalez-Barrera, 'Population Decline of Unauthorized Immigrants Stalls, May Have Reversed' (Report, PewResearch Hispanic Trends Project, 23 September 2013) <<http://www.pewhispanic.org/2013/09/23/2-number-and-trend/>>.

⁵⁰ Jeffrey S Passell and D'Vera Cohn, 'Unauthorized Immigrant Population: National and State Trends, 2010' (Report, PewResearch Hispanic Trends Project, 1 February 2011) <<http://www.pewhispanic.org/2011/02/01/unauthorized-immigrant-population-brnational-and-state-trends-2010/>>.

⁵¹ This figure may be an underestimate, see Glazier, Danovitch and Delmonico, above n 34, 1753.

⁵² Ibid.

⁵³ Fortin and Williams-Jones, above n 34, 3.

that are available to *citizens* in need of transplantation, but are not themselves considered worthy of receiving life-saving transplants. Their subjectivity, and hence intrinsic moral worth or dignity, is diminished in favour of their instrumental value to citizens. The use of financial incentives in donor recruitment, where a financial gain or comparable advantage is offered to a potential living donor or the family of a potential deceased donor in return for their consent to organ procurement, further impairs respect for dignity through partial or complete commodification of the donor.⁵⁴

As non-citizens are often economically and socially vulnerable as a result of their lack of citizenship rights and entitlements, taking advantage of them so as to obtain organs for transplantation without according them and their communities a reciprocal right to transplantation is exploitative. While they and their families may gain a financial advantage, the denial of their right to equitably access DD organs and transplant services, while procuring their organs so as to meet the needs of citizens, explicitly accords their own health needs a lower priority and thus denies them equal moral status.

Exploitation of vulnerable groups by a privileged citizenship occurs within the context of transnational travel for transplantation, but may also occur within national borders. For example, refugees in countries within the Middle East and elsewhere in the world are known to be at risk of organ trafficking.⁵⁵ Less dramatically, in some Middle Eastern countries where incentives are offered to DD families, non-citizen residents may comprise the majority of potential DD, but may be allocated DD organs for transplantation only where no medically suitable citizen recipient is available.⁵⁶ Such practices risk internalising the problems of "transplant tourism" within domestic jurisdictions.

⁵⁴ See, eg, Donald Joralemon and Phil Cox, 'Body Values: The Case Against Compensating for Transplant Organs' (2003) 33(1) *Hastings Center Report* 27; M Epstein, D E Martin and G M Danovitch, 'Caution: deceased donor organ commercialism!' (2011) 24(9) *Transplant International* 958.

⁵⁵ See, eg, Ulrike Putz, 'Lebanese Black Market: Syrian refugees sell organs to survive', *Spiegel* (online) 12 November 2013 <<http://www.spiegel.de/international/world/organ-trade-thrives-among-desperate-syrian-refugees-in-lebanon-a-933228.html>>; Thomas Schmitt, 'A pound of flesh: organ trade thrives in Indian Slums', *Spiegel* (online) 14 June 2007 <<http://www.spiegel.de/international/world/a-pound-of-flesh-organ-trade-thrives-in-indian-slums-a-488281.html>>.

⁵⁶ Like some European countries which prioritise citizens over non-citizen residents in organ allocation (eg, Poland, see Carella et al, above n 31, 86) in Saudi Arabia, for example, regulations regarding the distribution of deceased donor kidneys stipulate that:

Kidney should be transplanted to Saudi patients whenever a suitable patient is available. If there is no suitable Saudi patients anywhere in the Kingdom, and after obtaining consent from the Saudi Centre for Organ Transplantation, kidney may be transplanted to a non-Saudi patient with priority for residents followed by visitors.

Healthcare policies and socioeconomic inequalities undermine equity in access to transplantation throughout the world, even within well-established donation and transplantation programs that are publicly funded for all citizens.⁵⁷ Inequitable outcomes of policies that strive for justice may be challenging to overcome in Qatar, as in the United States or Australia, however where policies themselves consist of discriminatory allocation or eligibility criteria — that is, inequity at the principle level — there can be little hope of reducing inequities in outcomes.

D Citizenship Status is Insufficient to Define Potential Donor Populations

Citizenship is no longer always necessary and is rarely sufficient, if it ever was, to identify individuals and groups who may justifiably claim to belong to the community of potential donors, and thus to deserve a place among the group of potential transplant recipients within a defined organ procurement and transplantation system. Each organisational system must examine its potential donor population and develop or revise guidelines for eligibility to access transplantation accordingly. The dynamics of a given population will vary over time with the ebbs and flows of transnational migrations, yet it should be possible to define inclusive criteria whilst discouraging and preventing "poaching" by foreign nationals. For example, proof of a minimum duration of residence, whether legally authorised or not, within a country might be a prerequisite for accessing the waiting list for DD organs. Such requirements would depend on the characteristics of foreign national populations within specific countries. In Qatar, for example, the majority of non-citizen residents are temporary workers with legal residency status, whereas in other countries there may be significant minority groups consisting of illegal workers or refugees with uncertain legal status. Further, such

Kidney Transplantation, Saudi Centre for Organ Transplantation, <<https://www.scot.org.sa/en/en/directory-of-regulations/kidney-transplantation.html>>; for information about the financial incentives program, see M Al Sebayel et al, 'Donor Organ Shortage Crisis: A Case Study Review of a Financial Incentive-Based System' (2014) 46(6) *Transplantation Proceedings* 2030; in 2013, 52 per cent of potential deceased donors identified in Saudi Arabia were non-citizens: see Saudi Centre for Organ Transplantation, 'Annual Report 2013' (Report, 21 April 2014) 59 <http://scot.org.sa/en/images/stories/pdf/ANNUAL_REPORT_2013/annualreporten2013.pdf>.

⁵⁷ See, eg, P A McCormick et al, 'Ability to pay and geographical proximity influence access to liver transplantation even in a system with universal access' (2004) 10(11) *Liver Transplantation* 1422; A K Mathur et al, 'Geographic Variation in End-Stage Renal Disease Incidence and Access to Deceased Donor Kidney Transplantation' (2010) 10(4 pt 2) *American Journal of Transplantation* 1069; Fergus J Caskey and Rommel Ramanan, 'Access to kidney transplantation in Australia: does equal mean equitable?' (2013) 83(1) *Kidney International* 18.

requirements would not preclude occasional provision of compassionate access to foreign nationals.

Evaluating current demand for transplantation and allocation of organs for all groups within a country will assist in the development of fair policies and determination of exclusion or inclusion criteria where required. The United States, for example, has recently sought to improve the clarity of policy governing transplantation for non-resident aliens and to enhance transparency of practice.⁵⁸ The motivation for this was partially due to recognition that transplantation for non-residents is a potential threat to progress in achieving self-sufficiency in donation and transplantation. Where previously, transplant centres whose proportion of non-resident aliens was greater than five per cent were liable to audit,⁵⁹ new policies instead require centres to collect data concerning citizenship and, in the lay sense of the term, residency status from all patients who join waiting lists, including whether they have travelled to the United States specifically for the purpose of accessing transplantation.⁶⁰ In the next section, we explore more deeply the concept of self-sufficiency and its implications for inclusion of non-citizen residents in transplantation policy and practice.

III NATIONAL SELF-SUFFICIENCY IN ORGAN DONATION AND TRANSPLANTATION

Self-sufficiency refers to the practical goal of meeting patient needs within a given population 'with an adequate provision of transplantation services and supply of [donor organs] derived from that population'.⁶¹ For practical reasons, the scope of the population is likely to be national, given the need for coherent legislative and organisational elements enabling safe and effective procurement and distribution of DD organs for transplantation, and for a sufficiently large population to sustain this infrastructure and a sufficient donor pool. A population may nevertheless be defined in a variety of ways, with the only condition placed upon membership being the recognition of reciprocity in entitlements to transplantation and potential donor status. To be self-

⁵⁸ Glazier, Danovitch and Delmonico, above n 34.

⁵⁹ Of note, this figure has been frequently misinterpreted as representing a quota of organ transplants available for foreign patients.

⁶⁰ Glazier, Danovitch and Delmonico, above n 34.

⁶¹ L Noël and D E Martin, 'The exception of medical products of human origin — towards global governance tools' in Jean-Daniel Rainhorn and Samira El Boudamoussi (eds) *Globalisation and Commodification of the Human Body: a cannibal market* (Editions Fondation Maison des Sciences de l'Homme, Paris, 2014) (forthcoming).

sufficient implies the capacity to meet one's own needs — or those of a group, where collective self-sufficiency is concerned — independently. A population that relies on individuals or groups excluded from membership to supply organs for transplantation cannot achieve self-sufficiency. Accordingly, population membership is unlikely to be solely defined by citizenship status where non-citizens routinely contribute to meeting needs through donation.

The self-sufficiency concept is a strategic paradigm incorporating an ethos of solidarity, reciprocity, and equity in donation and transplantation.⁶² The adoption of societal responsibility for meeting transplant needs requires engagement of societal members in efforts to achieve this goal. This, in turn, depends on government support and oversight to maximise participation in the rare opportunities for deceased donation, and to minimise needs for transplantation by preventing end-stage organ failure where possible. These practical goals require public health programs providing access to treatment and prevention of diseases that contribute to organ failure, as well as to organ donation and transplantation services, public education, and promotion of donation. Protecting potential organ donors and recipients, and promoting their wellbeing, through the implementation of best practice clinical guidelines is also necessary to optimise the benefits of transplantation programs, and to reduce disincentives for potential donors. A number of specific strategic recommendations for the pursuit of self-sufficiency in organ transplantation were identified during the Third WHO Global Consultation on Organ Transplantation, held in Madrid in 2010.⁶³

Two key questions are often raised when discussing the self-sufficiency concept. First, why are financial incentives for donation considered incompatible with the pursuit of self-sufficiency?⁶⁴ Second, does adoption of the goal of self-sufficiency preclude all forms of organ sharing or exchange with foreign populations? We briefly address these questions here.

⁶² Luc Noël and Dominique E Martin, 'Self-sufficiency as a new paradigm: definition and significance' in Collaborators, 'Third WHO Global Consultation on Organ Donation and Transplantation: Striving to Achieve Self-Sufficiency, March 23–25, 2010, Madrid, Spain' (2011) 91 (11th Supp) *Transplantation*, pt 1, s 51–2.

⁶³ Collaborators, 'Third WHO Global Consultation on Organ Donation and Transplantation: Striving to Achieve Self-Sufficiency, March 23–25, 2010, Madrid, Spain' (2011) 91 (11th supp) *Transplantation*, pt 1, s 27.

⁶⁴ Noting that an incentive is where a comparable gain or profit is accrued, not where reimbursement of potential disincentives (such as the costs that may be incurred by living donors undergoing screening, nephrectomy, and follow-up care) is provided.

A Prohibition of Commercialism

The self-sufficiency paradigm rejects the use of financial incentives to recruit individuals as the source of organs for transplantation, and other practices in which the human body or its components become a source of financial gain.⁶⁵ The prohibition of financial incentives reflects concern for: the wellbeing of potential providers of organs, their families, and their communities; the promotion of equity in the distribution of burdens and benefits of organ transplantation; and for the development of sustainable, safe, and effective programs of organ procurement.

Incentive payments not only greatly exacerbate the risks of coercion, exploitation, and physical and psychosocial harm to organ providers and recipients,⁶⁶ they also impair efforts to promote deceased donation as the laudable fulfilment of an ethical responsibility. As a recruitment strategy exerting a more powerful influence on poorer groups to provide organs, use of financial incentives unfairly places the burden of organ provision on the poor and fails to encourage organ provision by the wealthy. Deceased donation in particular is a rare opportunity to make a valuable contribution to society that is open to all those who die in circumstances permitting organ procurement, regardless of their race, religion, gender, or socioeconomic status. Moreover, incentives risk undermining public trust in both living and deceased organ procurement programs, as they may represent a conflict of interest for healthcare professionals and potential donor families.

B National Self-Sufficiency and Organ Sharing

The foundation of the self-sufficiency paradigm is the notion of equity within mutually inclusive potential donor and recipient populations, united in pursuit of the goal of meeting their shared needs for transplantation together. This does not preclude occasional or systematic sharing of organs between this population and another, except where sharing or exchange may significantly impair progress towards self-sufficiency.

⁶⁵ L Noël and D E Martin, above n 61; D E Martin and S Kane, 'National self-sufficiency in reproductive resources: an innovative response to transnational reproductive travel' (2014) 7(2) *International Journal of Feminist Approaches to Bioethics* (forthcoming, October 2014).

⁶⁶ For a review of the hazards of payment for living provision of kidneys for transplantation, see Julian Koplin 'Assessing the Likely Harms to Kidney Vendors in Regulated Organ Markets' (2014) *American Journal of Bioethics* (forthcoming); D E Martin and S White, 'Risk, Regulation, and Financial Incentives for Living Kidney Donation' (2014) *American Journal of Bioethics* (forthcoming); for discussion of concerns about incentives for posthumous provision of organs, see Epstein, Martin and Danovitch, above n 54.

Examples of acceptable practices may include: sharing organs for which a suitable recipient cannot be found within the domestic population with foreign patients or transplant programs; regional organ sharing programs designed to help meet emergent needs and to optimise efficiency and utility in organ matching, where such programs result in equitable flows of organs between countries; and limited provision of compassionate access to transplant programs and organs for foreign patient populations where efforts are also made to develop sustainable programs of organ procurement and transplantation in those countries, so as to reduce reliance on domestic programs.⁶⁷

The pursuit of self-sufficiency — whether subnational, national, or regional in scope — emphasises inclusion, rather than exclusion. Inequitable forms of organ outsourcing, such as “transplant tourism” and domestic organ trading, are avoided by striving to meet needs using resources within a population. By recognising the potential contributions of any groups or individuals as organ donors, regardless of citizenship or economic status, and awarding them an equitable share in the benefits of donation through access to transplantation, self-sufficiency respects the equal moral status of all members of the population, promotes solidarity, and encourages efforts to meet needs for transplantation responsibly.

C Self-Sufficiency and the Doha Model

The Doha Model, through the DDA, exemplifies the ideals of the self-sufficiency paradigm in its central commitment to equity in donation and allocation of organs. In addition, the strategic framework of the Model reflects the multifaceted approach described in recommendations from the WHO and in the *Declaration of Istanbul on Organ Trafficking and Transplant Tourism*.⁶⁸

First, donation and transplantation activities within Qatar are supported by national legislation,⁶⁹ and are overseen by authorities within the Ministry of Health, enabling effective governance. Second, provision of best practice care to potential and actual living and deceased donors and transplant recipients is assured regardless of

⁶⁷ Martin and Delmonico, above n 36, 71.

⁶⁸ See Collaborators, above n 63; Participants, above n 4.

⁶⁹ See *Qatari Human Organ Transplants Law no 21 for the year 1997* (Qatar) <<http://www.gcc-legal.org/MojPortalPublic/LawAsPDF.aspx?opt&country=3&LawID=2838>> [Fadhil trans, <<http://www.declarationofistanbul.org/resources/legislation/460-qaatar-human-organs-transplants-law-no-21-for-the-year-1997>>].

socioeconomic status.⁷⁰ Third, ongoing development and implementation of comprehensive multicultural and multilingual education and donation promotion campaigns has taken place to facilitate public trust in and engagement with self-sufficiency efforts, to improve equity in access to donation and transplantation, to discourage harmful travel abroad for transplantation, and to increase availability of organs for transplantation within Qatar. Fourth, the establishment of a donor registry, and systematic collection and analysis of data concerning donation and transplant activities and outcomes, enables ongoing evaluation of programs and informs strategic development. Fifth, the legal prohibition of trade in organs is strictly enforced. In the next section, we evaluate the preliminary impact of these strategies and show that the Doha Model is already enabling progress towards true self-sufficiency in Qatar.

IV EVALUATING THE DOHA MODEL

Transparency of policy and practice is essential for all donation and transplantation programs, especially those operating in countries where population members, such as ethnic minorities or migrant workers, may suffer from socioeconomic vulnerability. Merely proclaiming a commitment to the ideals of the self-sufficiency paradigm, the *WHO Guiding Principles*, or the *Declaration of Istanbul* is insufficient to assure the public of efforts to promote equity and to prevent exploitation. Although the following preliminary data from Qatar's National Organ Donation Centre is insufficient to be statistically significant, we present this as promising evidence that the Doha Model is genuinely inclusive of non-citizens and committed to promotion of equity and transparency.

A Equity in Deceased Donation

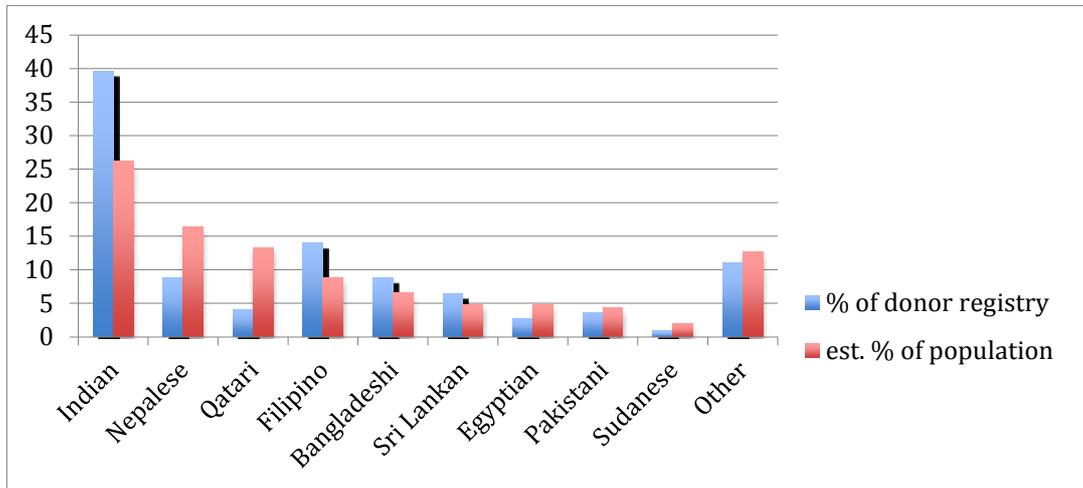
In the absence of accurate population demographic data, it is difficult to determine how accurately the commitment to deceased donation of national groups within Qatar (as measured by donor registration) reflects their proportion of the population. The donor registry (see Figure 2) currently shows a high proportion of Indian nationals far exceeding their estimated proportion of the population.⁷¹ Nevertheless, of the estimated

⁷⁰ All patients, regardless of their citizenship or financial status, receive care in the same hospitals and wards, from the same healthcare professionals at HMC.

⁷¹ Nationality data from the Donor Registry was collected on 31 March 2014.

nine largest nationality groups represented in Qatar's resident population, eight are among the largest nine nationality groups represented in the Donor Registry.⁷²

Figure 2: Nationalities represented in the Qatar Donor Registry



The multinational registry currently represents a very small fraction of Qatar's population; however, the first case of a deceased donor who had previously registered consent occurred in early 2013.⁷³ Moreover, the inclusion of 108 different nationalities indicates that education and promotion strategies are targeting and winning support across Qatar's extraordinarily diverse population. In addition to regular media campaigns, during the annual promotion campaign held during Ramadan, trained staff from Hiba interact with cultural communities within Qatar, providing education about donation and opportunities to join the registry. Community leaders help to build trust, and information is conveyed in native languages by staff from the same communities. Registration requires formal documentation of consent, with two witnesses confirming the identity and consent of the registrant.⁷⁴

Most notable is that some of the majority nationalities represented in the registry are those of countries that lack established DD programs and registries. Although it is too

⁷² Egyptian is the exception. The ninth largest registrant nationality group was that of Syrians. Estimates of the Syrian population resident within Qatar were unfortunately unavailable. Of note, during the first quarter of 2014, outside the peak promotional campaign period, the top five nationalities of individuals joining the registry were as follows: India, Qatar, Bangladesh, Philippines, Nepal. These five nationalities are most commonly cited as the largest groups resident within Qatar.

⁷³ This donor provided a liver and two kidneys for transplantation within Qatar, and heart and lung transplants in Saudi Arabia (as part of the regional organ sharing program).

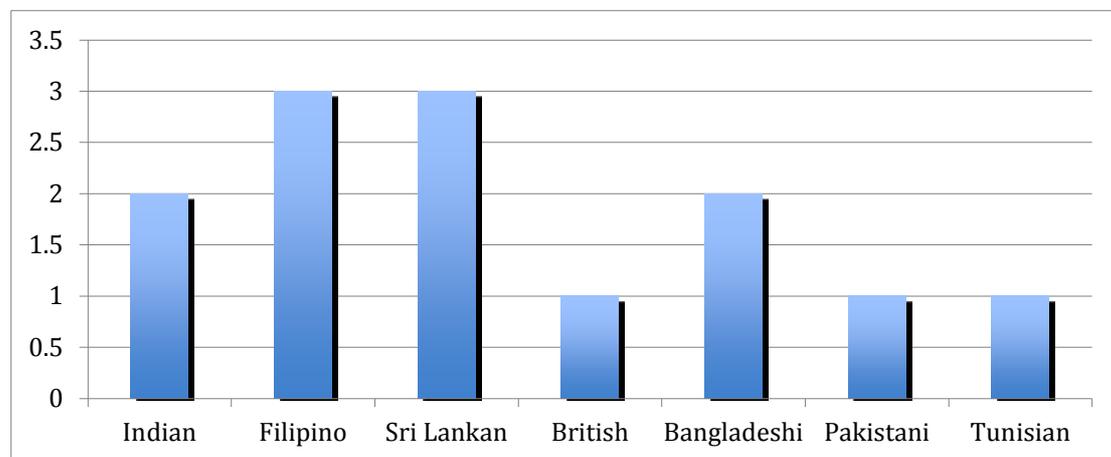
⁷⁴ A copy of the form is available at:

<http://organdonation.hamad.qa/en/images/Acknowledgement_of_an_Organ_Donation_by_Will_after_Death.pdf>.

early to assess the impact of the registry on consent for DD in Qatar, the success in motivating so many to join during the first Ramadan campaign suggests that the strategies employed might be usefully applied in the countries of origin of these registrants, and in other multinational countries where engagement of ethnic or cultural minorities has proven difficult.

Between January 2011 and 30 May 2014, organs were procured and transplanted from a total of 13 deceased donors within Qatar. The nationalities of these donors are shown in Figure 3 below.

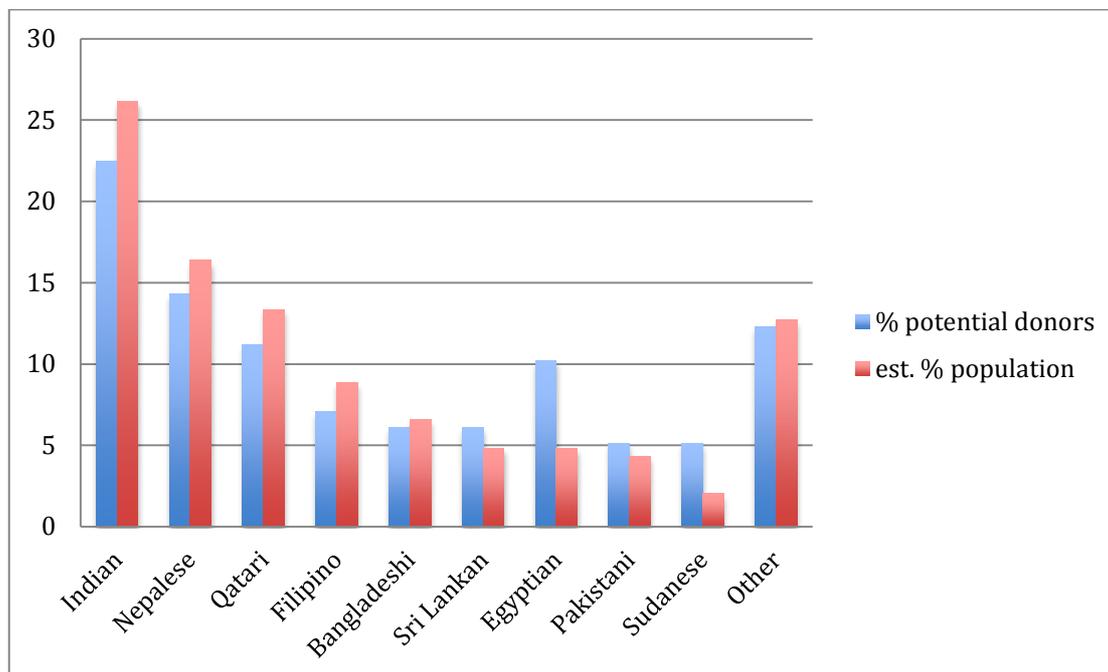
Figure 3: Nationality of deceased donors in Qatar



Evaluation of equity in deceased donation must consider not only the number of deceased donors, but also the number of potential DD identified within a population. If particular nationalities, for example, are disproportionately more likely to become potential donors, this may raise concerns about bias in the identification of potential donors, inequities in access to health care services, or exposure to occupational risks. Under the Hiba program, the families of all identified potential deceased donors are routinely approached to discuss the opportunity for organ donation, regardless of their nationality or religion. A 2014 retrospective audit of 98 potential deceased donors in HMC intensive care units found the majority of nationalities represented were roughly consistent with their estimated proportion of the population (see Figure 4 below).⁷⁵

⁷⁵ We must emphasise again that the population proportions are rough estimates and are included to provide some context — albeit imprecise and not independently verifiable — for the Organ Donation Centre data.

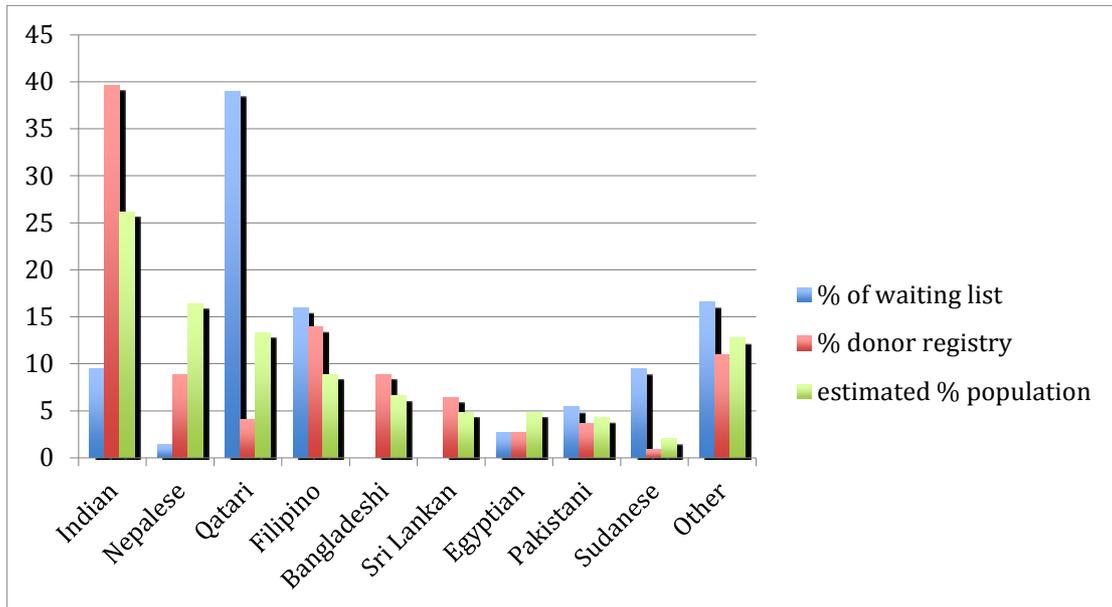
Figure 4: Nationalities of potential donors identified in an intensive care unit audit



B Equity in Access to the Waiting List

Figure 5 below shows the proportion of nationalities represented on the national waiting list mapped against their representation among the population and on the donor registry. We make no attempt here to provide an analysis of the estimated burden of end-stage organ failure among various subpopulations resident within Qatar, which would be required for an empirical assessment of equity in access to transplantation. However, we note that the high proportion of Qataris on the waiting list is likely to reflect the relative higher age of the Qatari population with resultant increased incidence of end-stage organ failure — especially ESRD — and the higher likelihood of being diagnosed with organ failure during the course of their lifetime residency in Qatar. This data nevertheless confirms the inclusion of non-citizens on the waiting list, access to which is determined according only to medical criteria and residency status in Qatar.

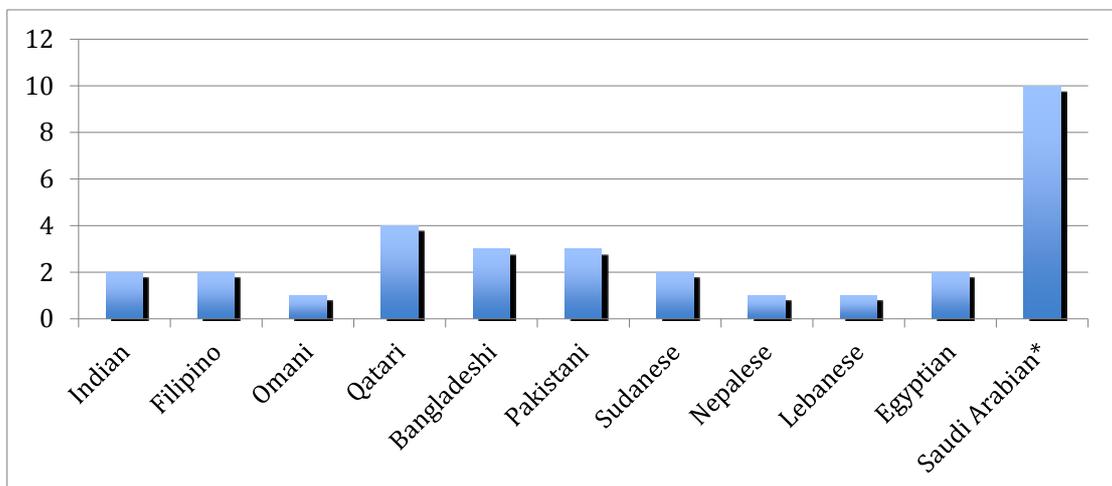
Figure 5: Proportional representation of nationalities on Qatar's waiting list for transplantation and donor registry



C Equity in Allocation

Qatar has a single waiting list for transplantation in which no priority is granted to citizens in the allocation of organs, and only medical criteria are considered. Despite the predominance of Qataris among waiting list registrants, the few transplants performed using DD organs in the last three years demonstrates the allocation program is not favouring citizens. Of the 33 organs donated and transplanted between January 2011 and 31 May 2014, only four were allocated to Qatari citizens (see Figure 6).

Figure 6: Nationality of transplant recipients from DD organs



The large number of organs allocated to Saudi Arabians is explained by the fact that Qatar has not yet established transplantation in organs other than kidneys and liver. Rather than discard additional organs procured, organs for which there was no suitable recipient resident in Qatar were shared with Saudi Arabia. The development of new transplant programs in other organs is currently underway in Qatar.⁷⁶ HMC studies its need to introduce new organ transplantation programs every three years, with the 2013 review of patient loads indicating a need to introduce pancreas transplantation. However, the scarcity of cases for cardiac and lung transplantation means these programs are unnecessary at the present time.

D Equity in Living Donation and Transplantation

Living donation of organs is also strictly regulated within Qatar. Prospective related living donors and recipients are carefully screened to confirm relationships, evaluate potential psychosocial and physical risks, and identify potential exploitation, coercion, or commercialism. Only legal residents of Qatar may receive a living donor transplant. Recognising that migrant workers often leave their families at home, with the financial support of Qatar charities the Qatar Organ Donation Centre now provides financial support where required to enable medically fit, matching, first-degree relatives to travel to Doha for donation, provided that preliminary screening is passed in their country of origin.⁷⁷ Further evaluation takes place on arrival in Qatar, consistent with the norms of assessment for resident living donors. There is no financial incentive or material gain for expatriate relatives who donate, reducing the risk of occult commercial transactions.

As at 1 June 2014, 34 prospective kidney transplant recipients are undergoing evaluation with their prospective living related donors. Of these, 22 are Qatari citizens. A further three patients have already undergone living donor renal transplantation between January and 1 June 2014.⁷⁸

⁷⁶ See H Khalaf et al, 'First liver transplant in Qatar: an evolving program facing many challenges' (2013) 11(5) *Experimental and Clinical Transplantation: Official Journal of the Middle East Society for Organ Transplantation* 423.

⁷⁷ Personal communication from the co-author, Professor Fadhil.

⁷⁸ Information provided courtesy of the Qatar Organ Donation Centre, Hiba.

E Impact on Commercialism

The number of Qatari citizens seeking transplantation from an LDR is significant in the light of previous Qatari activity in transplant tourism. In 2008, for example, 28 Qataris received kidney transplants abroad in countries such as the Philippines and Pakistan, and 10 received liver transplants in China. To contrast, in 2013 eight patients underwent renal transplantation in the United States and the United Kingdom from living related donors. One individual received a liver transplant from an LRD in the United Kingdom, and another from a DD in the United States. No Qataris underwent transplantation in China. A further four Qataris independently sought and received kidney transplants in Egypt.

The shift from commercial transplantation abroad to transplantation at ethically reputable foreign centres, and now to transplantation within the national program in Qatar, indicates the growth of public trust in the Doha Model and the quality of care provided within HMC. Providing and encouraging adoption of opportunities to access transplantation and donation domestically discourages pursuit of potentially dangerous and unethical services abroad.

V CONCLUSION

A Challenges for Doha

Implementing the Doha Model and achieving self-sufficiency in Qatar will require ongoing efforts. The frequent turnover of migrant worker populations means that constant renewal of education and promotion programs is necessary to foster and sustain societal engagement with organ donation, and to maintain a current registry of potential donors. Obtaining expatriate family authorisation for deceased donation is also a challenge that is currently being examined in the Hiba research program. Long distance telephonic communication with distressed relatives can be practically difficult and requires exceptional sensitivity to establish trust at a time of tragedy. The extreme socioeconomic and cultural divides within Qatar's population may undermine efforts to promote donation as a collective responsibility and transplantation as a shared resource. Maximising equity in access to transplantation will require ongoing evaluation of the transplant program and related health services, and public health surveillance to

identify and address barriers to screening, prevention, and treatment of organ failure. Barriers for non-citizen residents may include, for example, the inability to guarantee a lifelong supply of immunosuppression for transplant recipients who intend to return to their own country. Although collaborations between HMC and healthcare providers in the relevant countries and the support of Qatar charities may assist in addressing such concerns at least in the short term,⁷⁹ access to both healthcare services and essential medicines in developing countries is likely to remain a concern for temporary migrant workers offered the opportunity for transplantation while in Qatar. Responsible stewardship of donor organs, and professional obligations towards patients contemplating transplantation, will require careful consideration of individual cases and broader policies. However, such concerns should underpin comprehensive psychosocial screening of prospective recipients and inform consent processes, rather than systematically disqualifying non-citizens from transplantation. Finally, continued investment in the significant resources required to provide multicultural and multilingual education and outreach to national groups within Qatar, and thus to promote equity in access to donation and transplant services, is essential to sustain the preliminary trends of positive change described here.

B Conclusion

If the promise of Qatar's early success is fulfilled, future research may well confirm that recognition of all those who make their lives within a country as potential organ donors with reciprocal rights to access transplantation, regardless of their citizenship status, will assist in fostering a genuine sense of solidarity and trust in donation and transplantation programs. As the program in Qatar continues to develop, it will reveal the impact of community enfranchisement in transplantation on public engagement with deceased donation opportunities, and may well demonstrate that progress towards true self-sufficiency will be achieved where solidarity and trust are successfully fostered in a resident population.

The evidence from Qatar's developing program of donation and transplantation activities indicates an effective engagement with diverse groups from within a highly

⁷⁹ Thus far, two patients who received transplants while resident in Qatar and who later returned to their countries of origin have been provided with a one year supply of immunosuppression to support them while they establish a more long term source of supply.

multinational population. Recognition of all members of this population as potential organ donors and recipients, with equitable rights to access transplantation services, is a manifestation of respect for the dignity of all those who live and work in Qatar. Regardless of their citizenship status, wealth, religion, or ethnicity, their common humanity enables a shared program of donation and transplantation. The Doha Model serves as a highly promising illustration of the self-sufficiency paradigm in practice. The Model provides a comprehensive strategic framework underpinned by an ethos of inclusion that offers the best chance to unite a diverse society in pursuit of a common goal: meeting needs for transplantation together.

REFERENCE LIST

A Articles/Books/Reports

Alkuwari, Hanan et al, 'The Doha Donation Accord Aligned With the Declaration of Istanbul: Implementations to Develop Deceased Organ Donation and Combat Commercialism' (2014) 97(1) *Transplantation* 3

Al-Maslamani, Yousef et al, 'Potential brain death organ donors-challenges and prospects: A single center retrospective review' (2014) 25(3) *Saudi Journal of Kidney Diseases and Transplantation* 589

Bruni, R and L Wright, 'Sharing organs with foreign nationals' (2011) 21(1) *Progress in Transplantation* 78

Buggins, Elizabeth et al, 'Allocation of organs to non UK residents' (Report, Department of Health, London, 31 July 2009) <<http://www.bts.org.uk/Documents/Publications/Buggins%20Report%20-%20ALLOCATION%20OF%20ORGANS%20TO%20NON%20UK%20EU%20RESIDENTS.pdf>>

Cantrelle, C et al, 'Évolution de l'accès à la greffe rénale en France des patients étrangers ou résidant outre-mer' (2012) 105(2) *Bulletin de la Société de pathologie exotique* 115

Carella, C et al, 'Transplantation of non-nationals and non-residents in the countries of the Council of Europe: Results of a Survey conducted in the context of the initiatives of the European Committee on Organ Transplantation (CD-P-TO)' (2012) 17(1) *Newsletter Transplant* 84

Caskey, Fergus J, and Rommel Ramanan, 'Access to kidney transplantation in Australia: does equal mean equitable?' (2013) 83(1) *Kidney International* 18

Collaborators, 'Third WHO Global Consultation on Organ Donation and Transplantation: Striving to Achieve Self-Sufficiency, March 23-25, 2010, Madrid, Spain' (2011) 91 (11th Supp) *Transplantation*, pt 1, s 27

Davis, D S, 'Organ transplants, foreign nationals, and the free rider problem' (1992) 13(4) *Theoretical Medicine* 337

Delmonico, Francis L et al, 'A call for government accountability to achieve national self-sufficiency in organ donation and transplantation' (2011) 378(9800) *The Lancet* 1414

Den Hartogh, G, 'Priority to registered donors on the waiting list for postmortal organs? A critical look at the objections' (2011) 37(3) *Journal of Medical Ethics* 149

Epstein, M, D E Martin and G M Danovitch, 'Caution: deceased donor organ commercialism!' (2011) 24(9) *Transplant International* 958

Fadhil, R A S et al, 'The outcome of commercial kidney transplantation: a Qatari study on preoperative and post-transplant follow-up records of patients having commercial renal transplantation abroad: 837' (2008) 86(2S) *Transplantation* 292

Fadhil, R A S et al, 'Trichosporon: fungal arteritis causing rupture of vascular anastomosis after commercial kidney transplantation: a case report and review of literature' (2011) 43(2) *Transplantation Proceedings* 657

Fortin, M C and B Williams-Jones, 'Should we perform kidney transplants on foreign nationals?' (2013) *Journal of Medical Ethics*
<<http://jme.bmj.com/content/early/2013/11/25/medethics-2013-101534.full>>

Friedman, A L, and E A Friedman, 'Illegal aliens are not entitled to federally funded organ transplants' (2007) 83(1) *Transplantation* 21

Gardner, Andrew et al, 'A Portrait of Low-Income Migrants in Contemporary Qatar' (2013) 3(1) *Journal of Arabian Studies* 1

Glazier, A K, G M Danovitch and F L Delmonico, 'Organ Transplantation for Nonresidents of the United States: A Policy for Transparency' (2014) 14(8) *American Journal of Transplantation* 1740

Goldberg, A M, M Simmerling and J E Frader, 'Why nondocumented residents should have access to kidney transplantation: arguments for lifting the federal ban on reimbursement' (2007) 83(1) *Transplantation* 17

Green, Reg, *The Nicholas Effect: A Boy's Gift to the World* (Booktango, 2012)

Hoeyer, K, S Schicktanz and I Deleuran, 'Public attitudes to financial incentive models for organs: a literature review suggests that it is time to shift the focus from "financial incentives" to "reciprocity"' (2013) 26(4) *Transplant International* 350

Ishikawa, M et al, 'The management and long-term results of Japanese pediatric liver transplant recipients' (1994) 24(5) *Surgery Today* 403

Joralemon, Donald and Phil Cox, 'Body Values: The Case Against Compensating For Transplant Organs' (2003) 33(1) *Hastings Center Report* 27

Khalaf H et al, 'First liver transplant in Qatar: an evolving program facing many challenges' (2013) 11(5) *Experimental and Clinical Transplantation: Official Journal of the Middle East Society for Organ Transplantation* 423.

Kim, M G et al, 'Operational and regulatory system requirements for pursuing self-sufficiency in deceased donor organ transplantation program in Korea' (2010) 24(3) *The Journal of the Korean Society for Transplantation* 147

Koplin, Julian, 'Assessing the Likely Harms to Kidney Vendors in Regulated Organ Markets' (2014) *American Journal of Bioethics* (forthcoming)

Lafaye, Caroline Guibet and Henri Kreis, 'From altruistic donation to conditional societal organ appropriation after death' (2013) 16(2) *Ethical Theory and Moral Practice* 355

Lavee, J et al, 'Preliminary marked increase in the national organ donation rate in Israel following implementation of a new organ transplantation law' (2013) 13(3) *American Journal of Transplantation* 780

Martin, Dominique E and Francis L Delmonico, 'Ethical Issues and Transplant Tourism' in M R Weir and E V Lerma (eds), *Kidney Transplantation* (Springer, 2014) 69

Martin, D E and S Kane, 'National self-sufficiency in reproductive resources: an innovative response to transnational reproductive travel' (2014) 7(2) *International Journal of Feminist Approaches to Bioethics* (forthcoming, October 2014)

Martin, D E and S White 'Risk, Regulation, and Financial Incentives for Living Kidney Donation' (2014) *American Journal of Bioethics* (forthcoming)

Mathur, A K et al, 'Geographic Variation in End-Stage Renal Disease Incidence and Access to Deceased Donor Kidney Transplantation' (2010) 10(4 pt 2) *American Journal of Transplantation* 1069

McCormick, P A et al, 'Ability to pay and geographical proximity influence access to liver transplantation even in a system with universal access' (2004) 10(11) *Liver Transplantation* 1422

Meslin, E M, K R Salmon and J Eberl, 'Eligibility for organ transplantation to foreign nationals: the relationship between citizenship, justice, and philanthropy as policy criteria' in Keith Wailoo, Julie Livingston and Peter Guarnaccia (eds), *A Death Retold: Jessica Santillan, the Bungled Transplant, and the Paradoxes of Medical Citizenship* (University of North Carolina Press, 2006) 255

Minnee, R C et al, 'Ten-yr results of the trans-Atlantic kidney transplant airlift between the Dutch Caribbean and the Netherlands' (2011) 25(2) *Clinical Transplantation* 302

Noël, Luc and Dominique E Martin, 'Self-sufficiency as a new paradigm: definition and significance' in Collaborators, 'Third WHO Global Consultation on Organ Donation and Transplantation: Striving to Achieve Self-Sufficiency, March 23-25, 2010, Madrid, Spain' (2011) 91 (11th Supp) *Transplantation*, pt 1, s 51

Noël, L and D E Martin, 'The exception of medical products of human origin — towards global governance tools' in Jean-Daniel Rainhorn and Samira El Boudamoussi (eds) *Globalisation and Commodification of the Human Body: a cannibal market* (Editions Fondation Maison des Sciences de l'Homme, Paris, 2014) (forthcoming)

Passel, Jeffrey S, and D'Vera Cohn, 'Unauthorized Immigrant Population: National and State Trends, 2010' (Report, PewResearch Hispanic Trends Project, 1 February 2011) <<http://www.pewhispanic.org/2011/02/01/unauthorized-immigrant-population-brnational-and-state-trends-2010/>>

Passell, Jeffrey S, D'Vera Cohn and Ana Gonzalez-Barrera, 'Population Decline of Unauthorized Immigrants Stalls, May Have Reversed' (Report, PewResearch Hispanic Trends Project, 23 September 2013) <<http://www.pewhispanic.org/2013/09/23/2-number-and-trend/>>

Rashed, A and O Aboud, 'Renal transplantation: seventeen years of follow-up in Qatar' (2004) 36(6) *Transplantation Proceedings* 1835

Rizvi, S A H, et al, 'A Renal Transplantation Model for developing countries' (2010) 11(11) *American Journal of Transplantation* 2307

Saudi Centre for Organ Transplantation, 'Annual Report 2013' (Report, 21 April 2014) 59

<http://scot.org.sa/en/images/stories/pdf/ANNUAL_REPORT_2013/annualreporten2013.pdf>

Scheper-Hughes, Nancy, 'The Ends of the Body: Commodity Fetishism and the Global Traffic in Organs' (2002) 22(1) *SAIS Review* 68

Sebayel, M Al et al, 'Donor Organ Shortage Crisis: A Case Study Review of a Financial Incentive-Based System' (2014) 46(6) *Transplantation Proceedings* 2030

Shibolet, O et al, 'Air transportation of patients with end-stage liver disease to distant liver transplantation centers' (2005) 11(6) *Liver Transplantation* 650

Shigidi, Mazin M T et al, 'Peritoneal dialysis, an expanding mode of renal replacement therapy in Qatar' (2011) 22(3) *Saudi Journal of Kidney Diseases and Transplantation* 587

Siegel, Gil, Neomi Siegal and Richard J Bonnie, 'An Account of Collective Actions in Public Health' (2009) 99(9) *American Journal of Public Health* 1583

Volk, M L et al, 'Foreigners traveling to the US for transplantation may adversely affect organ donation: A national survey' (2010) 10(6) *American Journal of Transplantation* 1468

B Legislation

Law No 7 of 1996 Organizing Medical Treatment and Health Services within the State (Qatar) <<http://www.almeezan.qa/LawPage.aspx?id=4094&language=en>>

Law No 7 of 2013 on the Social Health Insurance System (Qatar) <<http://www.almeezan.qa/LawPage.aspx?id=4770&language=en>>

Law No 14 of 2004 on the promulgation of Labour Law (Qatar)
 <<http://www.almeezan.qa/LawPage.aspx?id=3961&language=en>>

Law No 4 of 2009 Regarding Regulation of the Expatriates Entry, Departure, Residence and Sponsorship (Qatar)

<<http://www.almeezan.qa/LawPage.aspx?id=2611&language=en>>

Qatari Human Organ Transplants Law no 21 for the year 1997 (Qatar) <<http://www.gcc-legal.org/MojPortalPublic/LawAsPDF.aspx?opt&country=3&LawID=2838>> [R A S Fadhil trans, <<http://www.declarationofistanbul.org/resources/legislation/460-quotatar-human-organs-transplants-law-no-21-for-the-year-1997>>]

C Other

Census 2010 Demographic Characteristics, Qatari population [15+] by age, sex and marital status, Table 4.2, Qatar Information Exchange <<http://www.qix.gov.qa>>

The Doha Donation Accord (revised 2014) is pending publication on the Hamad Medical Corporation website <<http://organdonation.hamad.qa/en>>

Hamer, Ashley, 'Foreigners benefit from transplants in Colombia by filing law suits', *Colombia Reports* (online) 23 October 2009 <<http://colombiareports.co/foreigners-benefit-from-transplants-in-colombia-by-filing-law-suits/>>

Hockman, Ben, 'Colombia's Organ Transplant Tourism Continues to decline: Govt', *Colombia Reports* (online) 23 March 2011 <<http://colombiareports.co/colombian-organ-transplants-for-foreigners-continues-to-decrease-govt/>>

Kidney Transplantation, Saudi Centre for Organ Transplantation, <<https://www.scot.org.sa/en/en/directory-of-regulations/kidney-transplantation.html>>

Participants in the International Summit on Transplant Tourism and Organ Trafficking Convened by the Transplantation Society and International Society of Nephrology in Istanbul, Turkey, April 30-May 2, 2008, 'The Declaration of Istanbul on Organ Trafficking and Transplant Tourism' (2008) 74(7) *Kidney International* 845

Putz, Ulrike, 'Lebanese Black Market: Syrian refugees sell organs to survive', *Spiegel* (online) 12 November 2013 <<http://www.spiegel.de/international/world/organ-trade-thrives-among-desperate-syrian-refugees-in-lebanon-a-933228.html>>

Census 2010 Demographic Characteristics, Qatari population [15+] by age, sex and marital status, Table 4.2, Qatar Information Exchange website <<http://www.qix.gov.qa>>

Schmitt, Thomas, 'A pound of flesh: organ trade thrives in Indian Slums,' *Spiegel* (online) 14 June 2007 <<http://www.spiegel.de/international/world/a-pound-of-flesh-organ-trade-thrives-in-indian-slums-a-488281.html>>

Snoj, Jure, 'Population Qatar' *BQDoha.com* (online) 18 December 2013 <<http://www.bqdoha.com/2013/12/population-qatar>>

Toumi, Habib, 'Shaikha Moza registers as organ donor', *Gulf News* (online), 9 August 2012 <<http://gulfnews.com/news/gulf/qatar/shaikha-moza-registers-as-organ-donor-1.1059826>>

World Health Organisation, *WHO guiding principles on human cell, tissue and organ transplantation*, UN Doc WHA63.22 (21 May 2010)