

Access to Renal Replacement Therapy in South Africa—A Cry for Action

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BACKGROUND

South Africa's history of renal transplantation spans 50 years.¹ Today, renal transplantation in South Africa is hampered by poor donation rates, lack of governmental commitment to provide Renal Replacement Therapy (RRT), and functional inequalities in a 2-tiered, economically disparate health system. A floundering public health sector—serving approximately 75% of South African residents—struggles to meet basic population healthcare needs and appears to have regressed in its provision of RRT.² In contrast, the private health sector has expanded considerably to achieve dialysis rates in-line with other middle-income countries.³ Consequences include very low renal transplant rates with severe limitations to access renal replacement treatment.⁴

RENAL TRANSPLANTATION IN SOUTH AFRICA BY NUMBERS

Table 1 profiles RRT for the South Africa population as a whole, and across the 2 health sectors.⁵ Notably, South Africa has only 1 transplant program per 19 dialysis facilities. Six transplant programs (40%) are based in the state sector and 9 (60%) are in the private sector. These numbers reflect the extensive discrepancies in actual renal transplant numbers per sector (Figure 1). In the private sector, it appears that patients are about 9 times more

likely to receive a renal transplant with a much smaller number of patients accessing a much larger opportunity of care.⁵ However, given that over two-thirds of South Africa seeks care in the state sector, one would expect state sector transplant numbers to be proportional to the population served in that sector.

BARRIERS TO RENAL DONATION—DECEASED AND LIVING DONORS

Barriers to deceased donation of solid organs in South Africa are pervasive. Traditionally, low deceased donor numbers were attributed to sociocultural practices precluding organ donation. However, it has recently been acknowledged that these considerations are not so much a barrier as lack of awareness.⁶ This aspect has been validated by demonstrating that when a family is approached to consider deceased donation in a suitably enabling and compassionate manner, consent can be obtained from people of all population groups—even those historically thought to hold sociocultural beliefs preventing donation.⁷

Other factors found to affect deceased donor numbers are a sensationalized portrayal of organ transplants in some popular media and doubts on the surgical organ retrieval process in theater.⁷ These concerns are also echoed at a health professional level. At times, although unintendedly so, misunderstandings on the part of health professionals may be communicated to families in a manner that is misleading. Moreover, there are no nationally endorsed protocols for referral of potential donors in hospitals. Additionally, there is no specialist nursing/coordinator training for procurement of donor organs focusing on the donor process including donor management, approaching, and communicating with donor families and donor logistics.⁸

Barriers to living donation similarly revolve around lack of awareness, but also include natural concerns about the surgical risks to the living donor. Additional obstacles, which are not unique to South Africa, include doubts about whether accepting a kidney from a relative or friend may alter the relationship between them. Moreover, reaching out to a relative or friend with the request to donate a kidney presents a challenge. Also, living donor renal transplantation in South Africa is hampered by the very high prevalence of exclusionary comorbid conditions in potential living donors.²

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TABLE 1.
Overview of RRT in South Africa (2017)

	State	Private	Total
Population accessing care	47.65 m	8.87 m	56.52 m
Facilities			
Dialysis centers	29 ^a (0.60 pmp)	249 (28 pmp)	278 (5 pmp)
Renal transplant centers	6 (0.12 pmp)	9 (1 pmp)	15 (0.26 pmp)
Treatment modalities			
Patients on dialysis (HD + PD)	2096 (44 pmp)	6785 (765 pmp)	8881 (157 pmp)
2017 renal transplant numbers	99 (2 pmp)	161 (18 pmp)	260 (4.6 pmp)
Renal transplant profile			
Renal transplants from deceased donors			129 (12 pediatric)
Renal transplants from living related donors			91 (12 pediatric)
Renal transplant from living unrelated donors ^b			40 (0 pediatric)

^aNo state renal replacement therapy facilities in the Limpopo or Mpumalanga provinces.

^bIn South Africa, all living unrelated transplants require ministerial authorization to ensure that perverse incentives are avoided.⁴ pmp, parts per million; m, million; RRT, renal replacement therapy.

DATA AND RESOURCE SHARING

A primary challenge for renal transplantation in South Africa is a lack of robust data systems. Most data processing in transplantation is spearheaded by motivated individuals or teams. Data collection and dissemination is neither required by the government nor does it receive any governmental support in terms of resources and infrastructure. The South African Renal Registry is by far the most comprehensive

RRT dataset in the country.⁹ The South African Renal Registry has many strengths, for instance offering a unified data collection platform that can easily assimilate and process data sets. The model is currently being expanded into the African Continent, with the goal of implementing a robust and broad resource. Some challenges faced by the South African Renal Registry include the optional nature of data reporting and reliability of self-report data.⁵

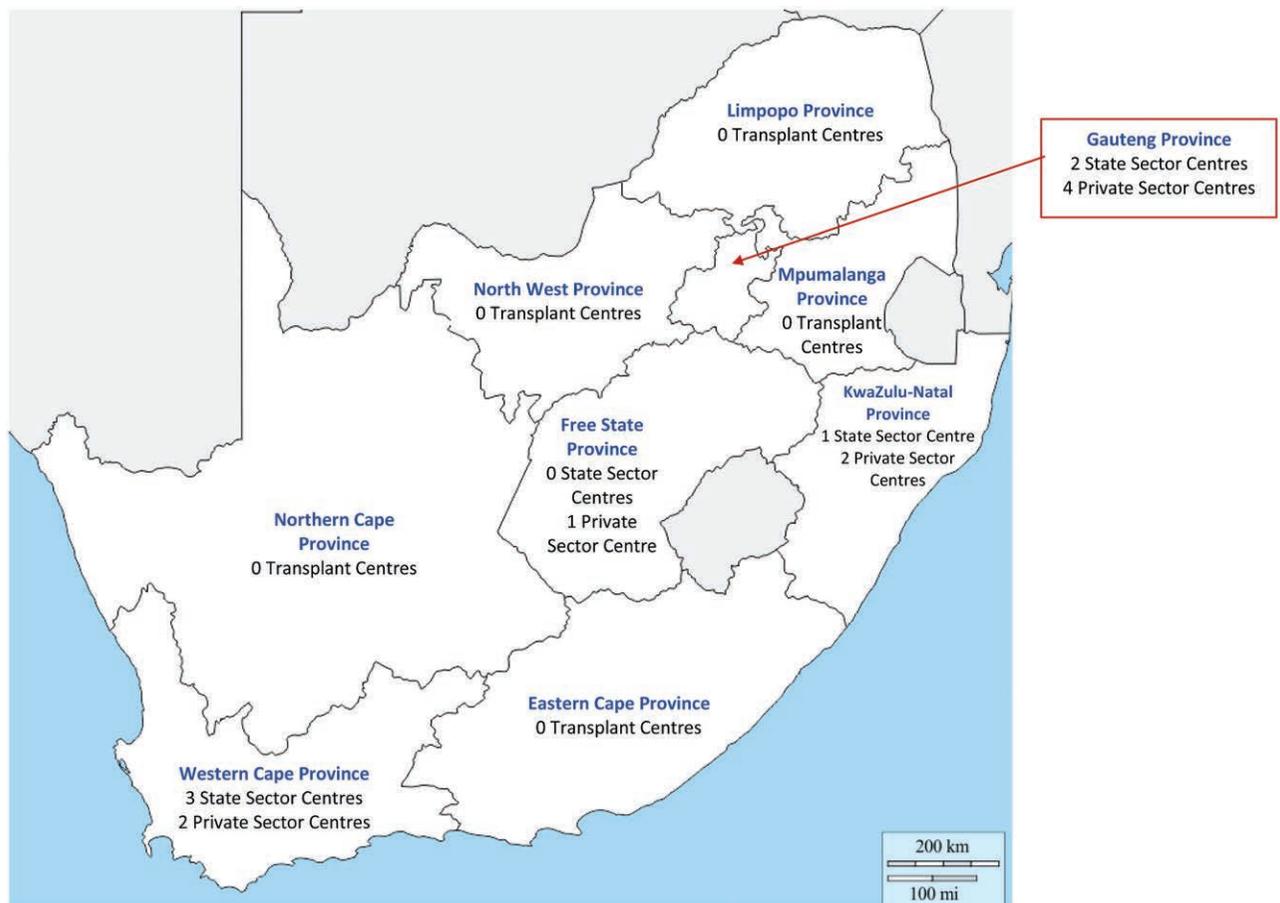


FIGURE 1. South African Renal Transplant Centers. This map depicts the nine provinces of South Africa, as well as detailing the number of transplant centers per sector in each province.

MAIN ACHIEVEMENTS AND CHALLENGES

The most significant achievement for renal transplantation in South Africa is the HIV-infected deceased donor to HIV-infected recipient program. Initiated in a bid to promote access to renal transplant for HIV-infected individuals, this program spurred international action in the renal transplant and HIV context¹⁰ resulting in the HIV Organ Procurement Equity (HOPE) Act in the United States.

While other countries continue to bolster their transplant legislation, South Africa seems to be falling behind with its vague legislation on RRT. Most prominently, the national government has not yet published legal regulations to provide health professionals with essential clear guidelines. As a result, policies regarding access to RRT are often ad hoc and implemented at a hospital level rather than nationally. Patients in need for RRT are therefore disempowered and do not always understand the extent to which they will be offered management and support. Moreover, access to RRT differs based on health sector. In the state sector, dialysis is generally only offered to patients eligible for renal transplantation—provided there is a slot available. Conversely, in the private sector, dialysis is a “Prescribed Minimum Benefit”—hence it must be made available to any person who can afford private medical insurance or pay out-of-pocket for their care.³

The Gini index is an indicator of inequality in a country with a scale from 0 to 1, where a Gini coefficient closer to 1 indicates substantial inequality. South Africa has a Gini coefficient of 0.63,¹¹ documenting significant disparities in healthcare access observed across the population. Thus, promoting justice and equality in access to RRT needs to be a major future goal.

THE WAY FORWARD

How should South Africa rise to this challenge? In our opinion, the response should start with National Organ Transplantation Guidelines endorsed by the Department of Health; guidelines should be applicable to all patients, irrespective of healthcare sector and address transplant listing and organ allocation, encourage the use of public–private partnerships, implement a standardized procurement

policy backed-up by an accredited procurement coordinator training program, incorporate extensive clinical and ethical guidelines, and clearly articulate any rationing policies that will be utilized when deliberating on who may access transplant services.

Second, the National Department of Health should sanction a National Organ Transplantation Database. Mandatory data input should be linked to the accreditation of transplant units and audited for quality control and research purposes. A database would greatly enhance the transparency of transplantation in South Africa.

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