



# SOUTH AFRICAN RENAL REGISTRY Annual Report 2013

MR Davids, N Marais, GK Balbir Singh and JC Jacobs

October 2015  
© South African Renal Society  
ISSN 2311-0023

---

Published by the  
South African Renal Society

South African Renal Registry

**Address**

PO Box 1935, Durban 4000, South Africa

**Telephone**

031 368 8000

**Email**

info@sa-renalsociety.org

**Website**

<http://www.sa-renalsociety.org>

**Website**

<http://www.sa-renalsociety.org/registry.asp>

**Chairpersons**

Prof Razeen Davids

Stellenbosch University and Tygerberg Hospital,  
Cape Town, 021 938 9246 and [mrd@sun.ac.za](mailto:mrd@sun.ac.za)

Dr Julian Jacobs

N1 City Hospital, Goodwood, Cape Town, 021 595 4040  
and [julian@kidneydoc.co.za](mailto:julian@kidneydoc.co.za)

**Managers**

Nicola Marais

078 800 5947 and [nicola.marais@gmail.com](mailto:nicola.marais@gmail.com)

Gillian Balbir Singh

071 336 2337 and [gillianbs@sun.ac.za](mailto:gillianbs@sun.ac.za)

Extracts from this publication may be freely reproduced  
without permission provided the source is acknowledged.

**Suggested citation**

MR Davids, N Marais, GK Balbir Singh, JC Jacobs.  
South African Renal Registry Report 2013. South African  
Renal Society, Cape Town 2015.

## Contents

<b>Introduction</b>	<b>1</b>
<b>Acknowledgements</b>	<b>2</b>
<b>Listing of participating treatment centres</b>	<b>3</b>
<b>South Africa in 2013</b>	<b>7</b>
Figure 1: Provinces and major cities of South Africa	7
Table 1: Population data by ethnic group	8
Table 2: Population data by province	8
<b>Treatment centres for dialysis and transplantation</b>	<b>8</b>
Table 3: Number of centres reporting data	8
Table 4: Number of centres by province and sector	8
<b>Prevalence of renal replacement therapy</b>	<b>9</b>
Table 5: Prevalence of renal replacement therapy	9
Table 6: Number of patients on RRT by province	9
Figure 2: Prevalence of RRT by province	9
Table 7: Prevalence of RRT by sector	9
Table 8: Number of patients by province and sector	9
Figure 3: Prevalence of RRT by province and sector	10
<b>Treatment modality</b>	<b>11</b>
Figure 4: Distribution of patients by treatment modality	11
Figure 5: Treatment modality by sector	11
Table 9: New kidney transplants in 2013	12
<b>Demographic and clinical data</b>	<b>13</b>
Figure 6: Age distribution by sector	13
Figure 7: Gender distribution	13
Figure 8: Distribution by ethnicity	13
Figure 9: Prevalence of RRT by ethnicity	14
Table 10: Most commonly reported causes of ESRD	14
Figure 10: Patients with diabetes	14
Figure 11: Hepatitis B status	15
Figure 12: Hepatitis C status	15
Figure 13: HIV status	15



## Introduction

This is the second report of the South African Renal Registry which provides data on renal replacement therapy (RRT) for patients with end-stage renal disease in South Africa. The launch of our Registry and the publication of our first report generated much interest. We were invited to present the data to Health Minister Dr Aaron Motsoaledi who subsequently convened a national summit on an effective approach to chronic kidney disease in South Africa. The National Department of Health has expressed their strong support for the Registry, and has allocated much-needed funding to assist our operations over the next two years.

For the first time, our data has been included in the well-known chapter on international comparisons of the United States Renal Data System annual report. Closer to home, the African Association of Nephrology has decided to establish an African Renal Registry and our registry will provide the platform from which to launch this important continental initiative.

During the last year we moved to a new technology platform. This was a challenging undertaking, but has been completed successfully. The new platform uses a web page interface and allows for much easier data entry. We are keeping the required dataset small to minimise the administrative burden and improve compliance with data submission.

The numbers presented here are similar to those reported last year, with low overall rates of RRT and big differences across provinces, and between public and private sectors. There is continued growth in the number of centres providing chronic haemodialysis in the private sector. The new transplant rates remain low, with very little activity in the public sector outside the provinces of Gauteng and the Western Cape.

Our next round of data collection, for December 2014, has already begun. Treatment centres should re-check their patients' core data, such as demographic data, the date on which treatment was started and the primary renal disease. Any changes in treatment modality, transfers to another centre, and deaths during the year 2014 need to be recorded.

Finally, we would like to thank all our colleagues from the participating treatment centres, and all our sponsors, for contributing to the success of the Registry.

**Razeen Davids and Julian Jacobs**  
SOUTH AFRICAN RENAL REGISTRY

---

## Acknowledgements

We wish to thank the following for contributing to the success of our 2013 data collection and annual report:

The doctors, nurses, technologists, support staff and management of participating treatment centres - these centres are listed below.

The National Department of Health for funding and ongoing support.

The National Kidney Foundation of SA for providing seed funding and ongoing support.

Our partners from the private sector for generous financial and logistical support:

- Adcock Ingram Critical Care (Renal Division)
- Amgen
- Janssen
- National Renal Care

Our national data managers, Nicola Marais and Suzan Baloyi.

Gillian Balbir Singh, for data analysis.

## Participating treatment centres

<b>EASTERN CAPE</b>		
<b>Public</b>	<b>Private</b>	<b>Private</b>
Frere Hospital	Jeffreys Bay Kidney and Dialysis Centre (FMC)	NRC Mthatha
Livingstone Hospital	Life Mercantile Hospital	NRC Port Elizabeth
Nelson Mandela Academic Hospital	NRC Butterworth	NRC Port Elizabeth PD
	NRC East London	NRC Queenstown
	NRC East London PD	NRC Uitenhage
	NRC King Williamstown	Port Elizabeth Kidney and Dialysis Centre (FMC)
	NRC Kwadwesi	

<b>FREE STATE</b>		
<b>Public</b>	<b>Private</b>	<b>Private</b>
Boitumelo Hospital	B. Braun Avitum Bethlehem	NRC Kroonstad
Bongani Hospital	B. Braun Avitum Bloemfontein	Sasolburg Kidney and Dialysis Centre (FMC)
Dihlabeng Hospital	B. Braun Avitum Welkom	Universitas Private Hospital
Mofumahadi Manapo Mopeli Hospital	Bloemfontein Kidney and Dialysis Centre (FMC)	
Pelonomi Hospital	NRC Bloemfontein	
Universitas Academic Hospital	NRC Bloemfontein PD	

<b>GAUTENG</b>		
<b>Public</b>	<b>Private</b>	<b>Private</b>
Charlotte Maxeke Johannesburg Academic Hospital	Arcadia Kidney and Dialysis Centre (FMC)	
Chris Hanu Baragwanath Hospital	B. Braun Avitum Benoni	Netcare Milpark Hospital
Dr George Mukhari Hospital	B. Braun Avitum Emfuleni	NRC Akasia
Helen Joseph Hospital	B. Braun Avitum Midvaal	NRC Alberton
Leratong Hospital	B. Braun Avitum Pretoria (Kloof)	NRC Arcadia
Steve Biko Academic Hospital	B. Braun Avitum Pretoria (Medforum)	NRC Benoni
	B. Braun Avitum Sandton	NRC Johannesburg PD
	Brits Kidney and Dialysis Centre (FMC)	NRC Krugersdorp
	Groenkloof Kidney and Dialysis Centre (FMC)	NRC Linkfield
	Kempton Kidney and Dialysis Centre (FMC)	NRC Lyttleton
	Lesedi Kidney and Dialysis Centre (FMC)	NRC Mayfair
	Life Flora Clinic	NRC Montana
	Life Fourways Hospital	NRC Mulbarton
	Life The Glynwood Hospital	NRC Olivedale
	LRC Lenasia	NRC Parktown West
	LRC Lenasia South	NRC Pretoria East
	Morningside Children's Kidney Treatment Centre (FMC)	NRC Pretoria PD
	Morningside Kidney and Dialysis Centre (FMC)	NRC Sebokeng
	Morula Kidney and Dialysis Centre (FMC)	NRC Sedibeng
	Naledi Kidney and Dialysis Centre (FMC)	NRC Sunninghill
Netcare Garden City Hospital	NRC Sunward Park	
Netcare Jakaranda Hospital	Phoenix Kidney and Dialysis Centre (FMC)	

## Participating treatment centres cont.

<b>GAUTENG cont.</b>		
<b>Public</b>	<b>Private</b>	<b>Private</b>
	Pretoria Kidney and Dialysis Centre (FMC)	Vaal Kidney and Dialysis Centre (FMC)
	Randfontein Private Hospital	Vosloorus Kidney and Dialysis Centre (FMC)
	Soweto Kidney and Dialysis Centre (FMC)	Westrand Kidney and Dialysis Centre (FMC)
	Tshepo-Themba Kidney and Dialysis Centre (FMC)	Wits Donald Gordon Kidney and Dialysis Centre (FMC)
	Tshwane Kidney and Dialysis Centre (FMC)	Wits Donald Gordon Medical Centre

<b>KWAZULU-NATAL</b>		
<b>Public</b>	<b>Private</b>	<b>Private</b>
Addington Hospital	B. Braun Avitum Chatsworth	Mount Edgecombe Kidney and Dialysis Centre (FMC)
Greys Hospital	B. Braun Avitum Dundee	Netcare St Augustine's Hospital
Inkosi Albert Luthuli Hospital	B. Braun Avitum Empangeni	Newcastle Kidney and Dialysis Centre (FMC)
King Edward VIII Hospital	B. Braun Avitum Howick	NRC Athlone
Ngwelezana Hospital	B. Braun Avitum Newcastle	NRC Ballito
	B. Braun Avitum Pietermaritzburg	NRC Berea
	B. Braun Avitum Scottburgh	NRC Chatsworth
	B. Braun Avitum Vryheid	NRC Durban PD
	Chatsworth Kidney and Dialysis Centre (FMC)	NRC Greyville
	Dialysis for You Chatsworth	NRC Hillcrest
	Dr Parag and Raghbir Kidney Care Centre	NRC Isipingo
	Durban Kidney and Dialysis Centre (FMC)	NRC Ladysmith
	Empangeni Kidney and Dialysis Centre (FMC)	NRC Margate
	Entabeni Kidney and Dialysis Centre (FMC)	NRC Pietermaritzburg CBD
	Ethekwini Kidney and Dialysis Centre (FMC)	NRC Pietermaritzburg PD
	Hibiscus Kidney and Dialysis Centre (FMC)	NRC Pinetown
	Kokstad Kidney and Dialysis Centre (FMC)	NRC Richards Bay
	KwaZulu Dialysis Chatsmed Renal Unit	NRC Umhlanga
	KwaZulu Dialysis Shifa Renal Unit	Pinetown Kidney and Dialysis Centre (FMC)
	KwaZulu Dialysis Umlazi Renal Unit	Richards Bay Kidney and Dialysis Centre (FMC)
	KwaZulu Dialysis Westville Renal Unit	Stanger Kidney and Dialysis Centre (FMC)
	Life Entabeni Hospital	Ultra Kidney Care Isipingo
	Life Mount Edgecombe Hospital	Umhlanga Kidney and Dialysis Centre (FMC)
	Merediac Dialysis Durban	Victoria Kidney and Dialysis Centre (FMC)
	Merediac Dialysis Pinetown	

<b>LIMPOPO</b>		
<b>Public</b>	<b>Private</b>	<b>Private</b>
	B. Braun Avitum Louis Trichardt	NRC Polokwane
	B. Braun Avitum Mokopane	NRC Venda
	B. Braun Avitum Polokwane	Polokwane Kidney and Dialysis Centre (FMC)
	B. Braun Avitum Tzaneen	

FMC = Fresenius Medical Care, MRC = Melomed Renal Care, NRC = National Renal Care, LRC = Lenmed Renal Centre

## Participating treatment centres cont.

<b>MPUMALANGA</b>		
<b>Public</b>	<b>Private</b>	<b>Private</b>
	B. Braun Avitum Ermelo	Middelburg Kidney and Dialysis Centre (FMC)
	B. Braun Avitum Nelspruit	Mpumalanga Kidney and Dialysis Centre (FMC)
	B. Braun Avitum Trichardt	NRC Nelspruit
	B. Braun Avitum Witbank	

<b>NORTH WEST</b>		
<b>Public</b>	<b>Private</b>	<b>Private</b>
Job Shimankana Tabane Hospital	B. Braun Avitum Vryburg	NRC Rustenberg PD
Klerksdorp Hospital	Carletonville Kidney and Dialysis Centre (FMC)	NRC Rustenburg
Mafikeng Hospital	Mafikeng Kidney and Dialysis Centre (FMC)	Potchefstroom Kidney and Dialysis Centre (FMC)
	North West Dialysis Centre	Rustenburg Kidney and Dialysis Centre (FMC)

<b>NORTHERN CAPE</b>		
<b>Public</b>	<b>Private</b>	<b>Private</b>
Kimberley Hospital	B. Braun Avitum Kimberley	NRC Kimberley
	B. Braun Avitum Upington	NRC Kimberley PD

<b>WESTERN CAPE</b>		
<b>Public</b>	<b>Private</b>	<b>Private</b>
George Hospital	Athlone Kidney and Dialysis Centre (FMC)	NRC Cape Town CBD
Groote Schuur Hospital	B. Braun Avitum Bellville	NRC Cape Town PD
Red Cross War Memorial Children's Hospital	B. Braun Avitum Cape Gate	NRC George
Tygerberg Hospital	B. Braun Avitum Mossel Bay	NRC Goodwood
Worcester Hospital	B. Braun Avitum Oudtshoorn	NRC Kuilsriver
	B. Braun Avitum Worcester	NRC Paarl
	Cape Town Kidney and Dialysis Centre (FMC)	NRC Plettenburg Bay
	Hermanus Kidney and Dialysis Centre (FMC)	NRC Plumstead
	Life Vincent Palotti Hospital	NRC Vredenburg
	MRC Gatesville	Panorama Kidney and Dialysis Centre (FMC)
	MRC Gatesville PD	Stellenbosch Kidney and Dialysis Centre (FMC)
	MRC Mitchell's Plain	UCT Kidney and Dialysis Centre (FMC)
	Netcare Christiaan Barnard Memorial Hospital	UCT Private Academic Hospital
	NRC Blaauwberg	Winelands Kidney and Dialysis Centre (FMC)

FMC = Fresenius Medical Care, MRC = Melomed Renal Care, NRC = National Renal Care, LRC = Lenmed Renal Centre



## Participating transplant centres

<b>FREE STATE</b>	
<b>Public</b>	<b>Private</b>
Universitas Academic Hospital	Universitas Private Hospital

<b>GAUTENG</b>	
<b>Public</b>	<b>Private</b>
Charlotte Maxeke Johannesburg Academic Hospital	Netcare Garden City Hospital
Dr George Mukhari Hospital	Netcare Jakaranda Hospital
Steve Biko Academic Hospital	Netcare Milpark Hospital
	Wits Donald Gordon Medical Centre

<b>KWAZULU-NATAL</b>	
<b>Public</b>	<b>Private</b>
Inkosi Albert Luthuli Hospital	Netcare St Augustine's Hospital

<b>WESTERN CAPE</b>	
<b>Public</b>	<b>Private</b>
Groote Schuur Hospital	Netcare Christiaan Barnard Memorial Hospital
Red Cross War Memorial Children's Hospital	UCT Private Academic Hospital
Tygerberg Hospital	

## South Africa in 2013

According to the mid-year estimates for 2013, the population has increased to 52.98 million people. Black/African citizens constitute 79.8% of the population, with people of mixed ethnicity (Coloured) making up 9.0%, whites 8.7% and Indian/Asians 2.5%. The province of Gauteng has the largest population, followed by KwaZulu-Natal.

South Africa is classified as an upper-middle income country by the World Bank, with a GNI per capita by the Atlas method of \$7410 and by the purchasing power parity (PPP) method of \$12530. Most of the population (86%) relies on the public health sector for services, with only a small proportion (16%) having medical insurance and accessing private sector healthcare.

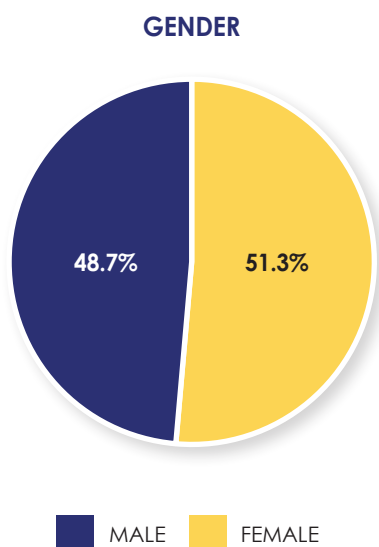
**Figure 1:** Provinces and major cities of South Africa



## South Africa in 2013 cont.

**Table 1:** Population data for 2013 by ethnic group

Mid-year estimates from Stats SA.



POPULATION GROUP	MILLION	%
African	42.28	79.8
Coloured	4.77	9.0
Indian/Asian	1.33	2.5
White	4.60	8.7
<b>TOTAL</b>	<b>52.98</b>	<b>100</b>

**Table 2:** Population data for 2013 by province

Mid-year estimates from Stats SA.

PROVINCE	MILLION	%
Eastern Cape	6.62	12.5
Free State	2.75	5.2
Gauteng	12.73	24.0
KwaZulu-Natal	10.46	19.7
Limpopo	5.52	10.4
Mpumalanga	4.13	7.8
North West	3.60	6.8
Northern Cape	1.16	2.2
Western Cape	6.02	11.4
<b>TOTAL</b>	<b>52.98</b>	<b>100</b>

## Treatment centres for dialysis and transplantation

**Table 3:** Numbers of centres reporting data

SECTOR	2013	%
Public sector	29	14.0
Private sector	178	86.0
<b>TOTAL</b>	<b>207</b>	<b>100</b>

**Table 4:** Number of centres by province and sector

SECTOR	EC	FS	GT	KZN	LP	MP	NW	NC	WC	ALL
Public sector	3	6	6	5	0	0	3	1	5	29
Private sector	13	9	53	49	7	7	8	4	28	178
<b>TOTAL</b>	<b>16</b>	<b>15</b>	<b>59</b>	<b>54</b>	<b>7</b>	<b>7</b>	<b>11</b>	<b>5</b>	<b>33</b>	<b>207</b>

## Prevalence of renal replacement therapy

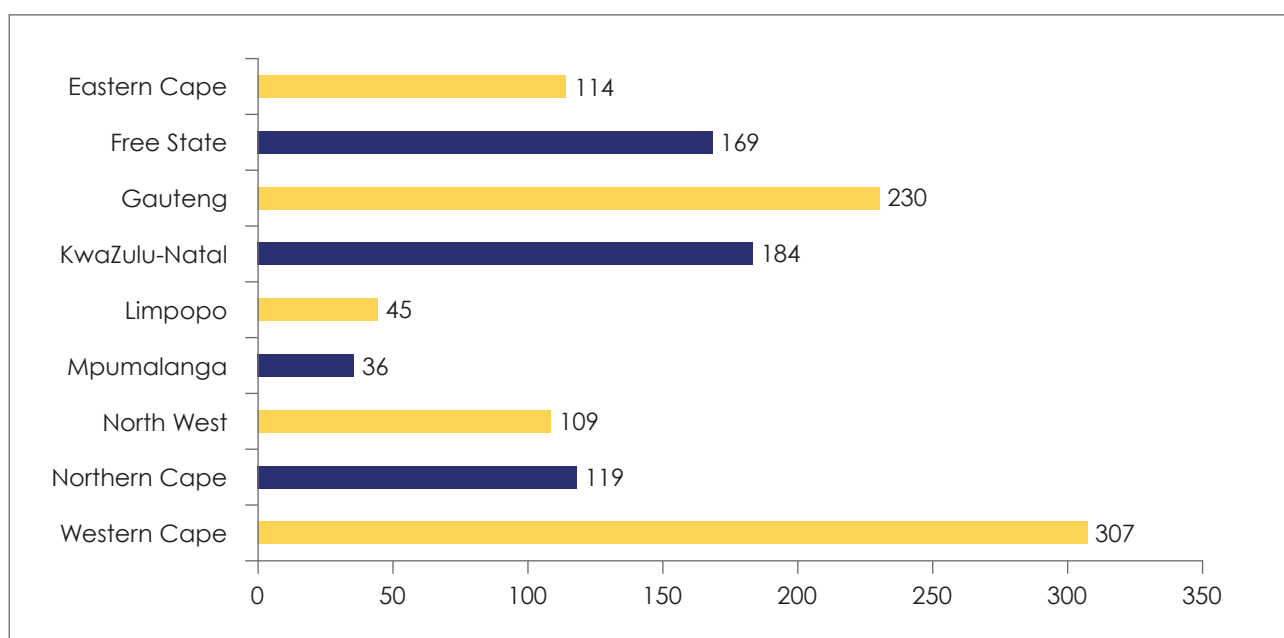
**Table 5:** Prevalence of RRT in 2013

	2013
Population in millions	52.98
ESRD patients on treatment	8 840
<b>Treatment rate in pmp</b>	<b>167</b>

**Table 6:** Numbers of patients on RRT by province

	EC	FS	GT	KZN	LP	MP	NW	NC	WC	ALL
<b>TOTAL</b>	<b>753</b>	<b>464</b>	<b>2 922</b>	<b>1 922</b>	<b>251</b>	<b>150</b>	<b>394</b>	<b>138</b>	<b>1 846</b>	<b>8 840</b>

**Figure 2:** Prevalence of RRT by province (pmp)



**Table 7:** Prevalence of RRT by sector

	Public sector	Private sector
Population in millions	44.2	8.78*
ESRD patients on treatment	3 150	5 690
<b>Treatment rate in pmp</b>	<b>71.3</b>	<b>648.1</b>

\* Council for Medical Schemes 2013-2014 Annual Report.

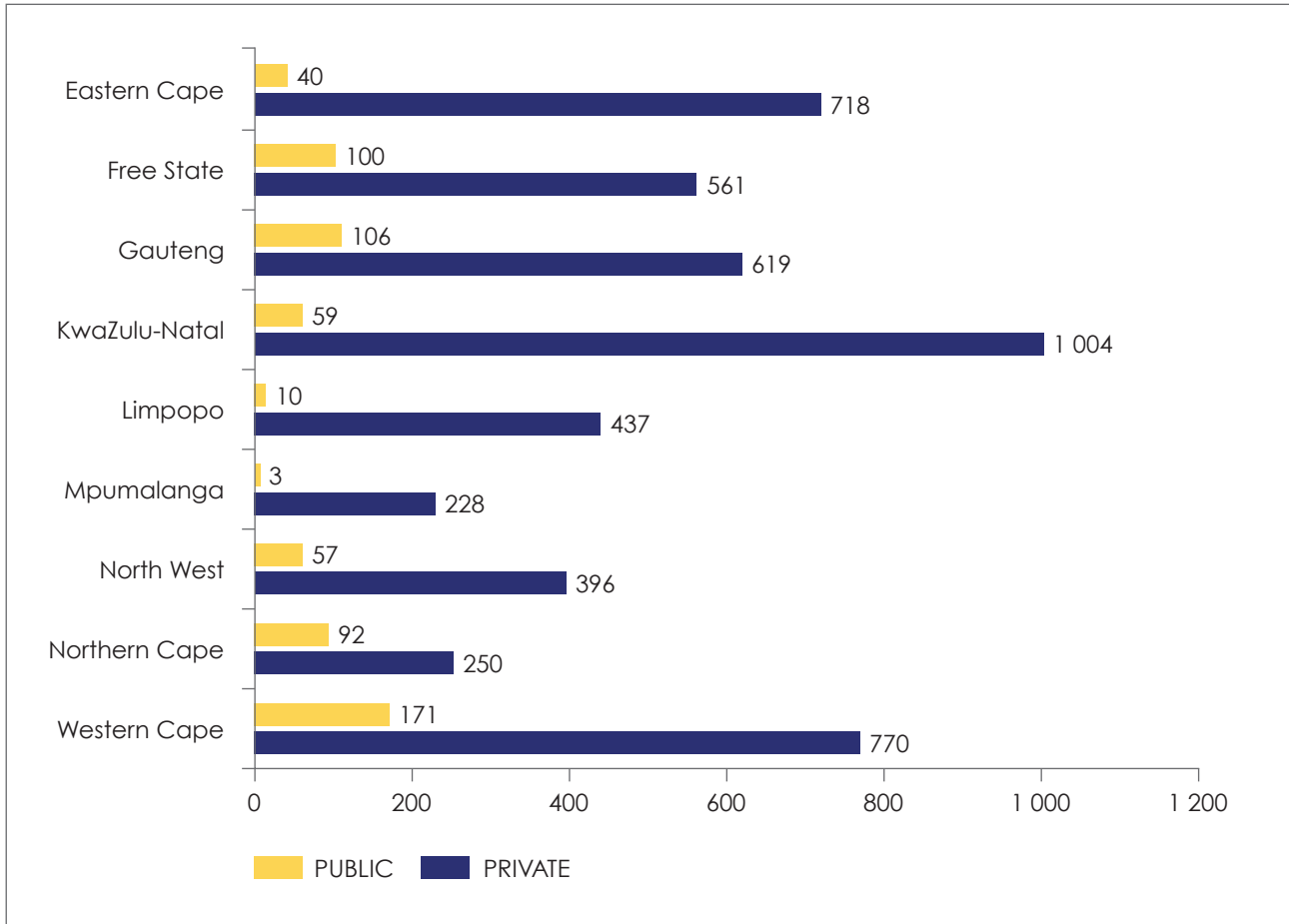
**Table 8:** Number of patients by province and sector

SECTOR	EC	FS	GT	KZN	LP	MP	NW	NC	WC	ALL
Public sector	236	234	1 023	537	50	11	172	88	799	3 150
Private sector	517	230	1 899	1 385	201	139	222	50	1 047	5 690
<b>TOTAL</b>	<b>753</b>	<b>464</b>	<b>2 922</b>	<b>1 922</b>	<b>251</b>	<b>150</b>	<b>394</b>	<b>138</b>	<b>1 846</b>	<b>8 840</b>

## Prevalence of renal replacement therapy cont.

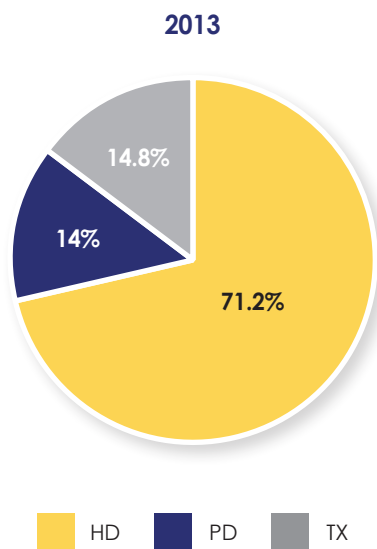
**Figure 3:** Prevalence (pmp) by province and sector

Denominators for prevalence calculations are based on Stats SA mid-term estimates and the Council for Medical Schemes 2013-2014 Annual Report.



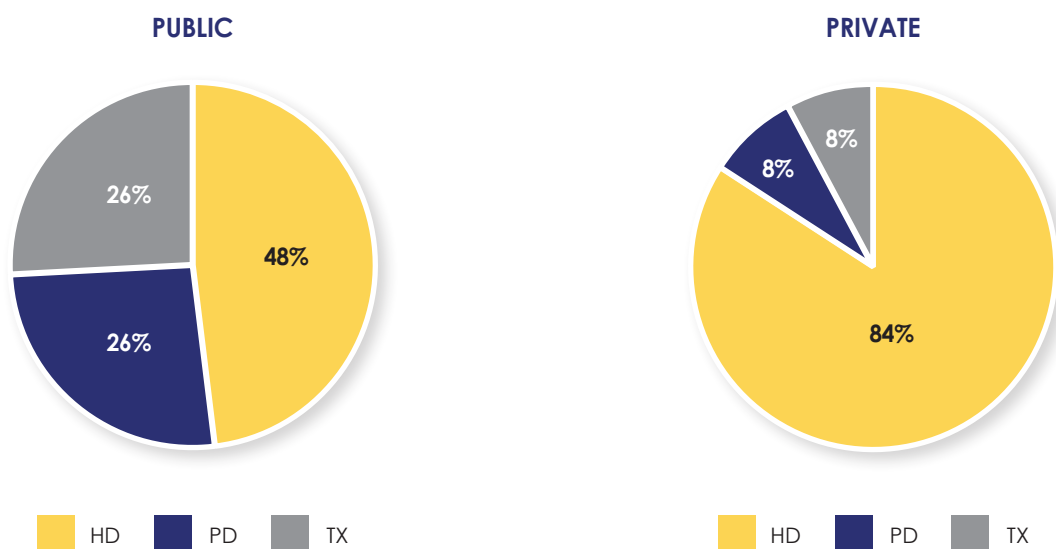
## Treatment modality

**Figure 4:** Distribution of patients by treatment modality



MODALITY	PATIENTS	%
Haemodialysis	6 295	71.2
Peritoneal dialysis	1 238	14.0
Transplant	1 307	14.8

**Figure 5:** Treatment modality by sector



TREATMENT MODALITY	PUBLIC SECTOR		PRIVATE SECTOR	
	Patients	%	Patients	%
Haemodialysis	1 507	47.8	4 788	84.1
Peritoneal dialysis	809	25.7	429	7.5
Transplant	834	26.5	473	8.3

## Treatment modality cont.

**Table 9:** New kidney transplants in 2013

Data supplied by the SA Organ Donor Foundation.

	DECEASED DONOR		LIVING RELATED		LIVING UNRELATED		TOTAL
	C	A	C	A	C	A	
Western Cape - Public	3 <sup>*</sup>	32	1	21	0	2	59
Western Cape - Private	0	18	2	22	0	8	50
Gauteng - Public	3	18	0	1	0	1	23
Gauteng - Private	3	47 <sup>#</sup>	4	21	0	11	86
KwaZulu-Natal - Public	0	0	0	0	0	0	0
KwaZulu-Natal - Private	0	9	0	11	0	3	22
Free State - Public	0	2	0	1	0	0	3
Free State - Private	0	3 <sup>‡</sup>	0	0	0	0	3
<b>TOTAL</b>	<b>9</b>	<b>129</b>	<b>7</b>	<b>77</b>	<b>0</b>	<b>24</b>	<b>246</b>

C = child recipient <18 years; A = adult recipient 18 years and older

<sup>\*</sup>Includes 1 kidney-liver transplant

<sup>#</sup>Includes 1 kidney-liver transplant and 6 kidney-pancreas transplants

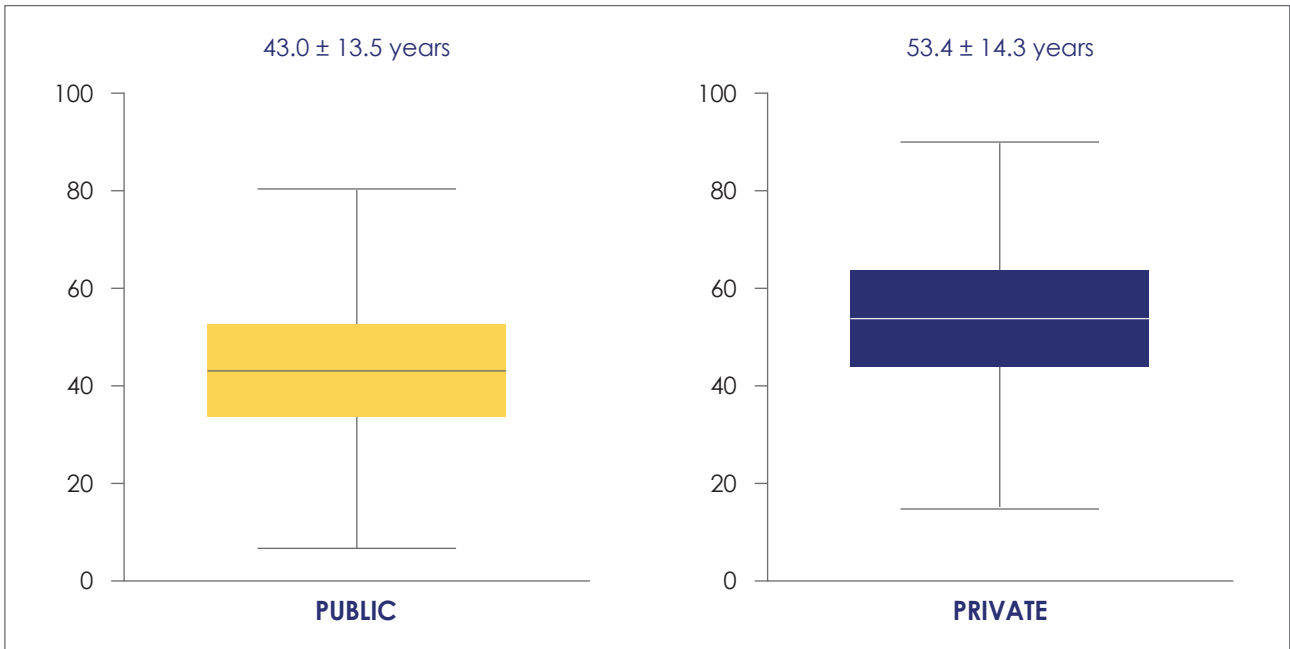
<sup>‡</sup>Includes 1 kidney-liver transplant

The transplant rate for 2013 (population 52.98 million) was 4.6 pmp

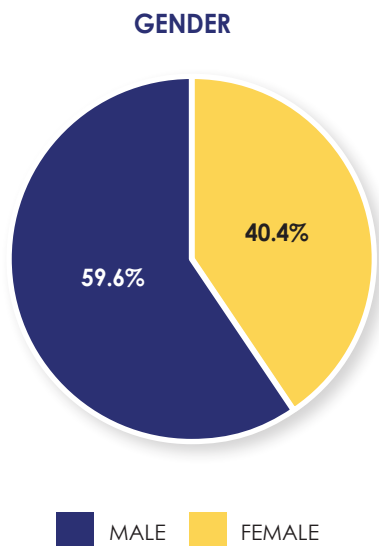
## Demographic and clinical data

**Figure 6:** Age of patients in public and private sectors

Mean age of all patients:  $49.7 \pm 14.9$  years.

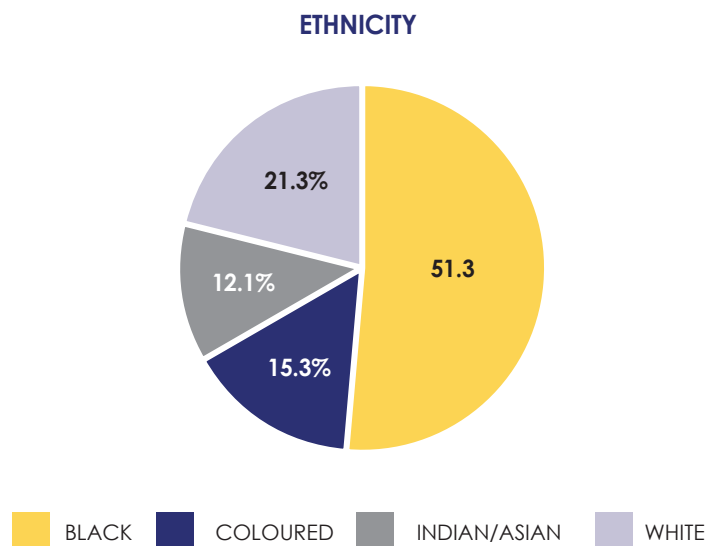


**Figure 7:** Gender distribution



**Figure 8:** Distribution (%) by ethnicity

Data on ethnicity available for 8 503 patients.

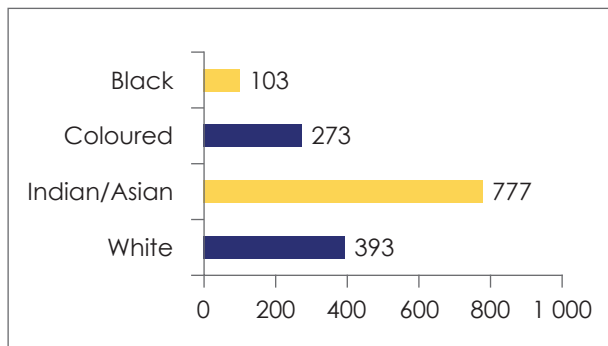




## Demographic and clinical data cont.

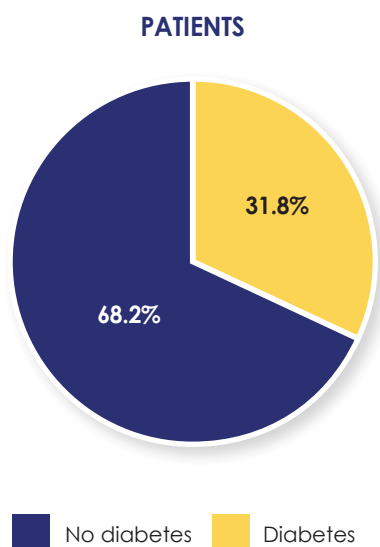
**Figure 9:** Prevalence of RRT (pmp) by ethnicity

Data on ethnicity available for 8204 patients (96% of all patients).



**Figure 10:** Patients with diabetes

The numbers of patients with data on diabetes are indicated in brackets.



**Table 10:** Most commonly reported causes of ESRD

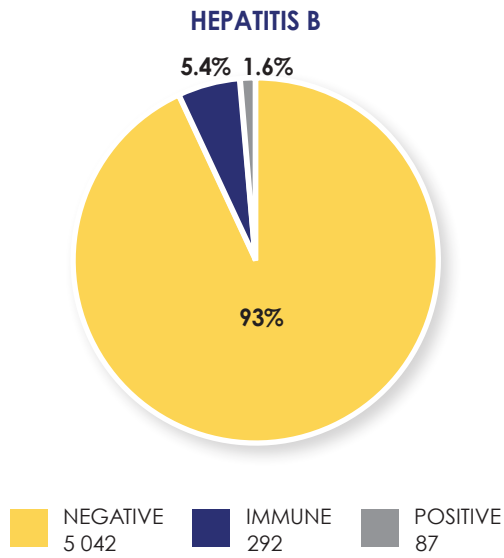
	% OF TOTAL
Glomerulonephritis	36.5
Hypertensive renal disease	31.7
Diabetic nephropathy	11.8
Uncertain or not stated	8.6
Cystic kidney disease	3.1

	DIABETICS	% OF TOTAL
Public (2 435)	196	8.0
Private (5 286)	2 259	42.7
<b>All (7 721)</b>	<b>2 455</b>	<b>31.8</b>

Demographic and clinical data cont.

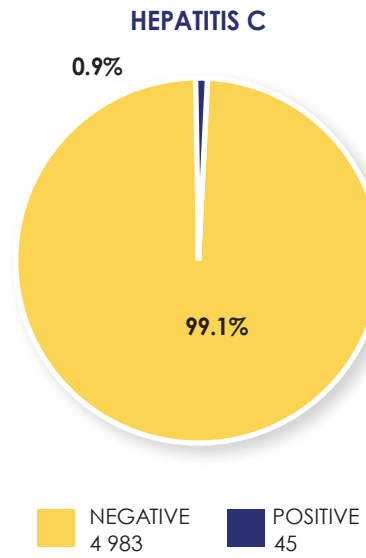
**Figure 11:** Hepatitis B status

No. of patients with data = 5 421.



**Figure 12:** Hepatitis C status

No. of patients with data = 5 028.



**Figure 13:** HIV status

No. of patients with data = 4 836.

