The South African and African Renal Registries





Razeen Davids, Julian Jacobs, Sajith Sebastian

An epidemic of CKD

More than 500 million people, or about one adult in ten, have some form of chronic kidney disease



60% of all deaths are due to the chronic diseases

The epidemiology of chronic kidney disease in sub-Saharan Africa: a systematic review and meta-analysis

John W Stanifer, Bocheng Jing, Scott Tolan, Nicole Helmke, Romita Mukerjee, Saraladevi Naicker, Uptal Patel





Oa

Summary

Background Amid rapid urbanisation, the HIV epidemic, and increasing rates of non-communicable diseases, people in sub-Saharan Africa are especially vulnerable to kidney disease. Little is known about the epidemiology of chronic kidney disease (CKD) in sub-Saharan Africa, so we did a systematic review and meta-analysis examining the epidemiology of the disease.

Methods We searched Medline, Embase, and WHO Global Health Library databases for all articles published through March 29, 2012, and searched the reference lists of retrieved articles. We independently reviewed each study for quality. We used the inverse-variance random-effects method for meta-analyses of the medium-quality and high-quality data and explored heterogeneity by comparing CKD burdens across countries, settings (urban or rural), comorbid disorders (hypertension, diabetes, HIV), CKD definitions, and time.

Findings Overall, we included 90 studies from 96 sites in the review. Study quality was low, with only 18 (20%) medium-quality studies and three (3%) high-quality studies. We noted moderate heterogeneity between the medium-quality and high-quality studies (n=21; $I^2=47\cdot11\%$, $p<0\cdot0009$). Measurement of urine protein was the most common method of determining the presence of kidney disease (62 [69%] studies), but the Cockcroft-Gault formula (22 [24%] studies) and Modification of Diet in Renal Disease formula (17 [19%] studies) were also used. Most of the studies were done in urban settings (83 [93%] studies) and after the year 2000 (57 [63%] studies), and we detected no significant difference in the prevalence of CKD between urban ($12\cdot4\%$, 95% CI 11–14) and rural ($16\cdot5\%$, $13\cdot8-19\cdot6$) settings ($p=0\cdot474$). The overall prevalence of CKD from the 21 medium-quality and high-quality studies was $13\cdot9\%$ (95% CI $12\cdot2-15\cdot7$).

Interpretation In sub-Saharan Africa, CKD is a substantial health burden with risk factors that include communicable and non-communicable diseases. However, poor data quality limits inferences and draws attention to the need for more information and validated measures of kidney function especially in the context of the growing burden of non-communicable diseases.

Lancet Glob Health 2014; 2: e174-181

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This online publication has been corrected. The corrected version first appeared at thelancet.com/lancetgh on April 24, 2014

See Comment page e124

Department of Medicine
(J W Stanifer MD, S Tolan MD,
U Patel MD), Duke Global Health
Institute (J W Stanifer),
Department of Biostatistics
(B Jing BS), School of Medicine
(N Helmke BS), and Duke
Clinical Research Institute
(R Mukerjee MD, U Patel), Duke
University, Durham, NC, USA;
and Department of Internal
Medicine, University of
Witwatersrand, Johannesburg,
South Africa
(Prof S Naicker MBChB)

Correspondence to: Dr John W Stanifer, Duke University Medical Center,



W Health in South Africa 4

The burden of non-communicable diseases in South Africa

Bongani M Mayosi, Alan J Flisher, Umesh G Lalloo, Freddy Sitas, Stephen M Tollman, Debbie Bradshaw

Lancet 2009; 374: 934-47

Published Online August 25, 2009 DOI:10.1016/S0140-6736(09)61087-4

See Online/Comment DOI:10.1016/S0140-6736(09)61306-4

This is the fourth in a Series of six papers on health in South Africa

Department of Medicine, Groote Schuur Hospital and University of Cape Town, Cape Town, South Africa (Prof B M Mayosi DPhil); Division of Child and Adolescent Psychiatry, Red Cross War Memorial Children's Hospital and University of Cape Town, Cape Town, South Africa (Prof A J Flisher PhD); Department of Medicine, Inkosi Albert Luthuli Central Hospital and Nelson R Mandela School of Medicine, University

15 years after its first democratic election, South Africa is in the midst of a profound health transition that is characterised by a quadruple burden of communicable, non-communicable, perinatal and maternal, and injury-related disorders. Non-communicable diseases are emerging in both rural and urban areas, most prominently in poor people living in urban settings, and are resulting in increasing pressure on acute and chronic health-care services. Major factors include demographic change leading to a rise in the proportion of people older than 60 years, despite the negative effect of HIV/AIDS on life expectancy. The burden of these diseases will probably increase as the roll-out of antiretroviral therapy takes effect and reduces mortality from HIV/AIDS. The scale of the challenge posed by the combined and growing burden of HIV/AIDS and non-communicable diseases demands an extraordinary response that South Africa is well able to provide. Concerted action is needed to strengthen the district-based primary health-care system, to integrate the care of chronic diseases and management of risk factors, to develop a national surveillance system, and to apply interventions of proven cost-effectiveness in the primary and secondary prevention of such diseases within populations and health services. We urge the launching of a national initiative to establish sites of service excellence in urban and rural settings throughout South Africa to trial, assess, and implement integrated care interventions for chronic infectious and non-communicable diseases.

Introduction

South Africa is in the midst of a health transition that is characterised by the simultaneous occurrence of epidemic infectious diseases and a rise in non-communicable diseases, in a population facing a heavy burden of perinatal and maternal disorders, injury, and violence.1-3 Cardiovascular disease, type 2 diabetes, cancer, chronic lung

non-communicable diseases that confronts contemporary South Africa and makes recommendations to deal with the burden. We have used information from several key sources (panel 1), including the national burden of disease study, Statistics South Africa, the South African demographic and health surveys (SADHS), populationbased demographic surveillance systems, and sur-

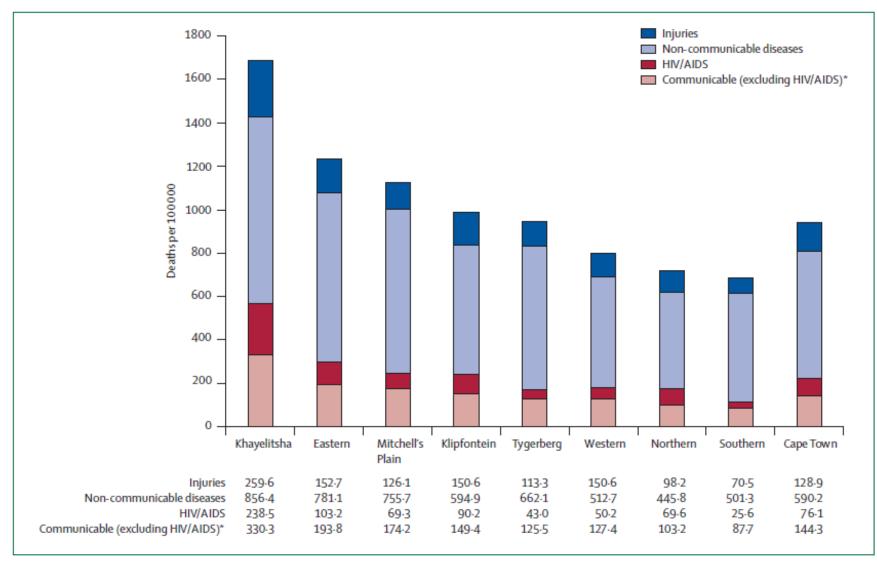


Figure 2: Age-standardised mortality rates for broad cause groups by subdistrict, Cape Town 2006

in subsequent years (figure 3).⁶⁵ By contrast, sustained increases were seen for diabetes (38%), hypertensive heart disease (20%), ill-defined heart diseases (23%), and kidney disease (67%) from 1999 to 2006 (figure 3). These increases in mortality have prompted several calls for action to revent the impending epidemic of cardiovascular and metabolic disease in sub-Saharan Africa.^{53,66}

Clinical Kidney Journal Advance Access published January 17, 2017







Clinical Kidney Journal, 2016, 1–7

đoi: 10.1093/ckj/sfw138 Original Article

ORIGINAL ARTICLE

Prevalence of chronic kidney disease and association with cardiovascular risk factors among teachers in Cape Town, South Africa

Aderemi B. Adeniyi¹, Carien E. Laurence², Jimmy A. Volmink^{2,3} and M. Razeen Davids¹

¹Division of Nephrology, Department of Medicine, Stellenbosch University and Tygerberg Hospital, Cape Town, South Africa, ²Centre for Evidence-based Health Care, Faculty of Medicine and Health Sciences, Stellenbosch University, Cape Town, South Africa and ³South African Cochrane Centre, South African Medical Research Council, Cape Town, South Africa

Correspondence and offprint requests to: M. Razeen Davids; E-mail: mrd@sun.ac.za

Prevalence of CKD = 6.1%



RESEARCH ARTICLE

Open Access

Chronic kidney diseases in mixed ancestry south African populations: prevalence, determinants and concordance between kidney function estimators

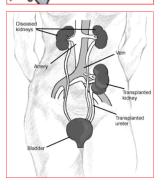
Tandi E Matsha^{1†}, Yandiswa Y Yako¹, Megan A Rensburg², Mogamat S Hassan³, Andre P Kengne^{4†} and Raiiv T Erasmus^{2*†}

Prevalence of CKD = 17.3%

Renal replacement therapy ... a story of limited access







Expensive, variable government support

Half of dialysis patients in just 4 countries: Japan, USA, Brazil, Germany

Near zero in many African countries



The Gap between Estimated Incidence of End-Stage Renal Disease and Use of Therapy

Shuchi Anand¹, Asaf Bitton², Thomas Gaziano³*

1 Division of Nephrology, Department of Medicine, Stanford University School of Medicine, Stanford, California, United States of America, 2 Division of General Medicine, Brigham and Women's Hospital, Harvard Medical School, Boston, Massachusetts, United States of America, 3 Cardiovascular Medicine, Brigham & Women's Hospital, Harvard Medical School, Boston, Massachusetts, United States of America

Abstract

Background: Relatively few data exist on the burden of end-stage renal disease (ESRD) and use of renal replacement therapy (RRT)—a life-saving therapy—in developing regions. No study has quantified the proportion of patients who develop ESRD but are unable to access RRT.

Methods: We performed a comprehensive literature search to estimate use and annual initiation of RRT worldwide, and present these estimates according to World Bank regions. We also present estimates of survival and of etiology of diseases in patients undergoing RRT. Using data on prevalence of diabetes and hypertension, we modeled the incidence of ESRD related to these risk factors in order to quantify the gap between ESRD and use of RRT in developing regions.

Results: We find that 1.9 million patients are undergoing RRT worldwide, with continued use and annual initiation at 316 and 73 per million population respectively. RRT use correlates directly (Pearson's r=0.94) with regional income. Hemodialysis remains the dominant form of RRT but there is wide regional variation in its use. With the exception of the Latin American and Caribbean region, it appears that initiation of RRT in developing regions is restricted to fewer than a quarter of patients projected to develop ESRD. This results in at least 1.2 million premature deaths each year due to lack of access to RRT as a result of diabetes and elevated blood pressure and as many as 3.2 million premature deaths due to all causes of ESRD.

Conclusion: Thus, the majority of patients projected to reach ESRD due to diabetes or hypertension in developing regions are unable to access RRT; this gap will increase with rising prevalence of these risk factors worldwide.

Citation: Anand S, Bitton A, Gaziano T (2013) The Gap between Estimated Incidence of End-Stage Renal Disease and Use of Therapy. PLoS ONE 8(8): e72860. doi:10.1371/journal.pone.0072860

Uses of disease registries

Powerful tool to study:

course of disease;
care patterns, including disparities in delivery;
factors that influence prognosis and quality of life;
variations in treatment and outcomes;
assess effectiveness and safety of therapies;
improve standards through feedback of data



improving <u>access</u> to and <u>quality</u> of dialysis and transplantation services

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TÜRK NEFROLOJİ DERNEĞİ YAYINLARI PUBLISHED BY THE TURKISH SOCIETY OF NEPHROLOGY





TÜRKİYE'DE NEFROLOJI, DİYALİZ

VE TRANSPLANTAS

REGISTRY OF THE NEPHROLOGY. AND TRANSPLANTATION IN TURK

Latin American Dialysis and Transplant Registry: 200 prevalence and incidence of end-stage renal diseas and correlation with socioeconomic indexes

Ana M. Cusumano¹, Guillermo Garcia-Garcia², Maria C. Gonzalez-Bedat³, Sergio Marinovich⁴, Jocemir Lugon⁵, Hugo Poblete-Badal⁶, Susana Elgueta⁶, Rafael Gomez⁷, Fabio Hernandez-Fonseca⁸, Miguel Almaguer⁹, Sandra Rodriguez-Manzano¹⁰, Nelly Freire¹¹, Jorge Luna-Guerra¹², Gaspar Rodriguez Tommaso Bochicchio¹⁴, Cesar Cuero¹⁵, Dario Cuevas¹⁶, Carlos Pereda¹⁷ and Raul Carlini¹⁸

19[™]REPORT OF THE MALAYSIAN DIALYSIS & TRANSPLANT REGISTRY 2011

USRDS 2013 Annual Data Report Overview

Allan J. Collins, MD, FACP **Professor of Medicine University of Minnesota**

Director, United States Renal **Data System Coordinating** Center

Minneapolis, Minnesota

Scottish Renal Registry Report 2011

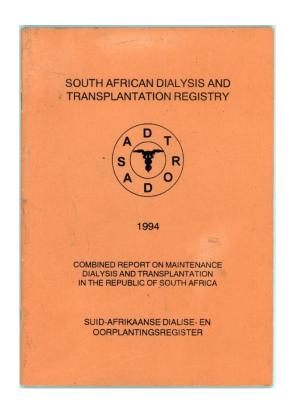
With demographic data to 2011 and audit data to 2012

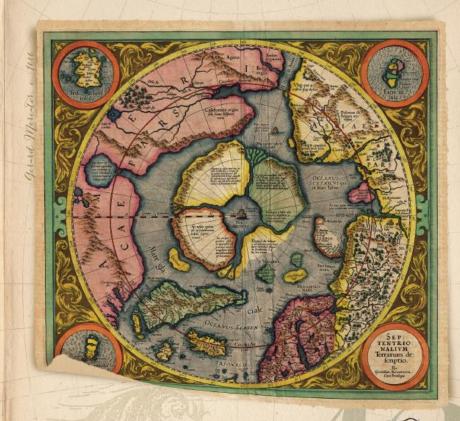


African renal registries

Many not sustainable.

SA Dialysis and Transplant Registry established in 1977. Last data 1994 then almost two decades without data on RRT.





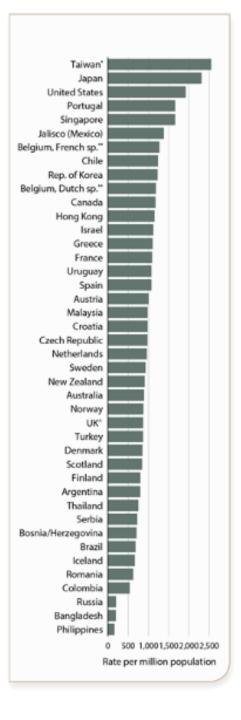
International comparisons

USRDS Report

Chapter on international comparisons

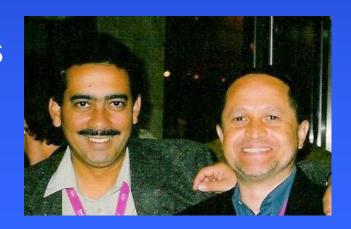
Prevalence of ESRD, 2011 Rate per million population

No data from Africa

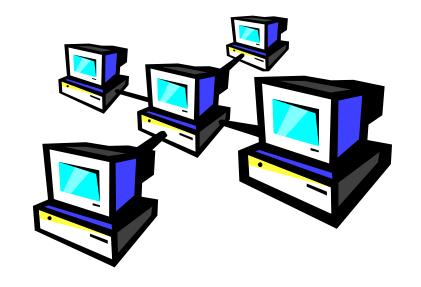


South African Dialysis and Transplantation Registry

Julian Jacobs Razeen Davids



The new South African Renal Registry



Secure Web-based platform

Central server housing the data Data encrypted and password-protected

The Team

Chairs: Drs Jacobs and Davids

Directors: Drs Jacobs, Davids, Sebastian

JHB:

Developer – Stefano Mestriner

Data manager - Nicola Marais

Data capturer – Susan Baloyi

CPT:

Data manager Volunteers, students



Funding

Department of Health: R350,000 p.a. Industry: approx. R200,000 p.a. data capture help

Stellenbosch University: office, students, staff (1 day/week)

South African Renal Society



SOUTH AFRICAN RENAL REGISTRY



RENAL REGISTRY

December 2016 year-end assessments are now due!
Please note that December 2017 assessments should be
captured from 01 December 2017 to 31 January 2018.
NB: The Registration of new patients, Transfers, End of
Treatment entries and Transplant Procedures should be
completed as these events occur, or at least monthly

Username: razeendavids

Password: ••••••

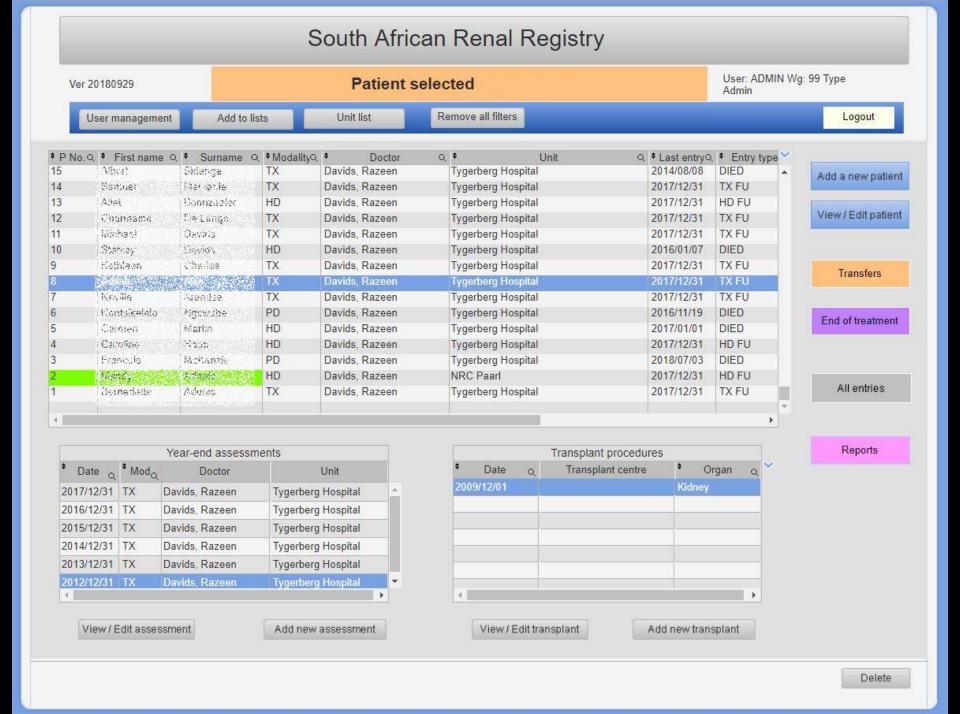
Log in

-

Only authorised personnel may access the Registry, logging in with the username and password provided. For security, an audit trail of all activity is recorded. This includes the IP address of the computer used to gain access.

Please contact Nicola Marais if any assistance is required.

nicola.marais@gmail.com



PATIENT ANNUAL ASSESSMENT FORM (Data as at 31 December, or closest available data) ID number Assessment date: (or passport no.) First Name: Last name City of residence East Cape Free State Gauteng ΚΖΝ Limpopo Mpumalanga North West North Cape West Cape Province of residence **CURRENT modality** ☐ Haemodialysis ☐ HDF ☐ HomeHD ☐ CAPD ☐ APD ☐ Transplant Current Rx Unit Sector ☐ Public sector ☐ Private sector ☐ Public-Private Initiative Doctor Comorbidity - current status Type 1 DM Type 2 DM Post-transplant DM Diabetic, type unknown Not diabetic Unknown Diabetes status ■ Negative ☐ Immune ☐ Positive ☐ Unknown Hep B status ■ Negative ☐ Positive ☐ Unknown Hep C status HIV status ■ Negative □ Positive ☐ Unknown Additional information for patients on dialysis Albumin (g/l): Haemoglobin (g/dl): Number of HD sessions/week (HD patients only):

First report: December 2012

(published 2014)



SOUTH AFRICAN RENAL REGISTRY ANNUAL REPORT 2012

MR Davids, N Marais and JC Jacobs



SOUTH AFRICAN RENAL REGISTRY ANNUAL REPORT 2012

SOUTH AFRICAN RENAL REGISTRY Annual Report 2014

SOUTH AFRICAN RENAL REGISTRY

Annual Report 201

MR Davids, N Marais and JC Jacobs

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

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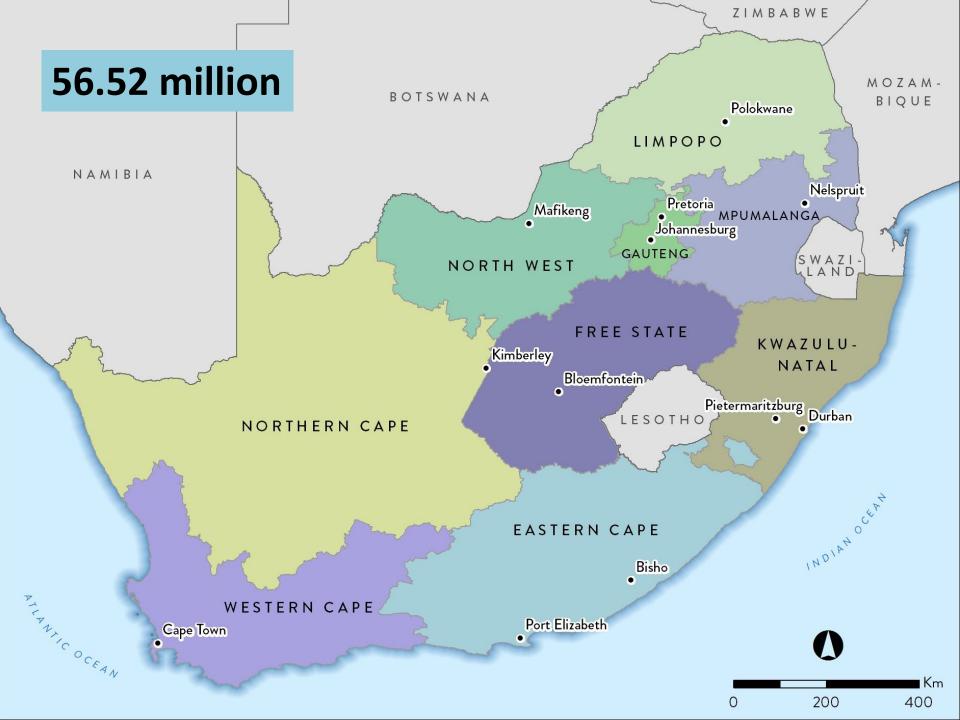
© South African Renal Society 2016

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SA Renal Registry 2017







Population data by province

	2017	2017 %
Eastern Cape	6.50	11.5
Free State	2.87	5.1
Gauteng	14.28	25.3
KwaZulu-Natal	11.07	19.6
Limpopo	5.78	10.2
Mpumalanga	4.44	7.9
North West	3.86	6.8
Northern Cape	1.21	2.1
Western Cape	6.51	11.5
Total	56.52	100.0

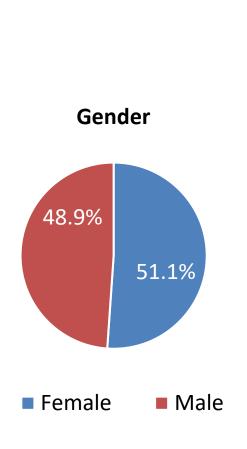
Stats SA: 2017 mid-year estimates

Population data by province

	1994	2017	Δ (%)
Eastern Cape	6.40	6.50	2
Free State	2.74	2.87	5
Gauteng	6.91	14.28	107
KwaZulu-Natal	8.53	11.07	30
Limpopo	5.23	5.78	10
Mpumalanga	2.93	4.44	52
North West	3.31	3.86	17
Northern Cape	0.74	1.21	64
Western Cape	3.65	6.51	78
Total	40.44	56.52	100

Stats SA: 2017 mid-year estimates

Population (millions) for 2017



	2017	2017 %
Black	45.65	80.8
Coloured	4.96	8.8
White	4.49	8.0
Indian/Asian	1.41	2.5
Total	56.52	100.0

Stats SA: 2017 mid-year estimates

Treatment centres reporting data

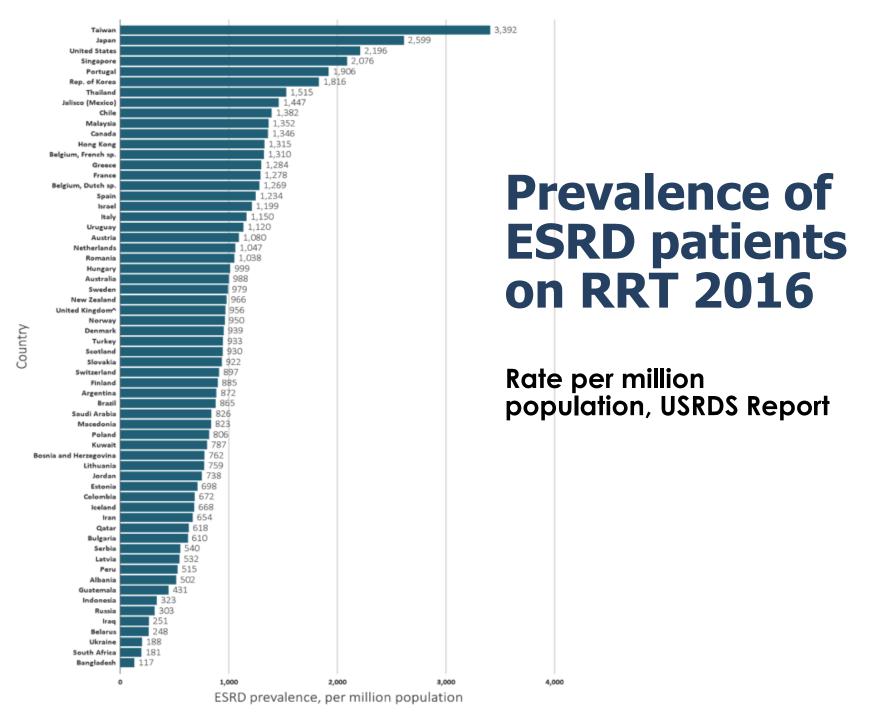
	1994	2012	2014	2017	2017 %
Public sector	26	28	29		
Private sector	5	163	196		
Total	31	191	225		100.0

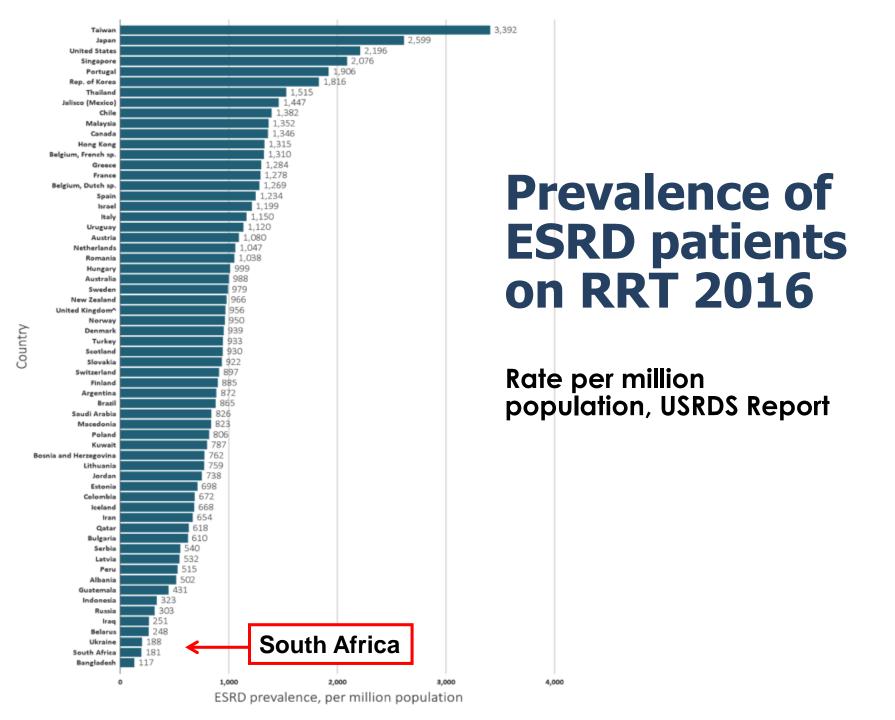
How many patients do we treat?

10553

Prevalence of patients on RRT

	1994	2017
Population in millions	40.4	56.52
ESRD patients on treatment	2843	10553
Treatment rate (pmp)	70	187

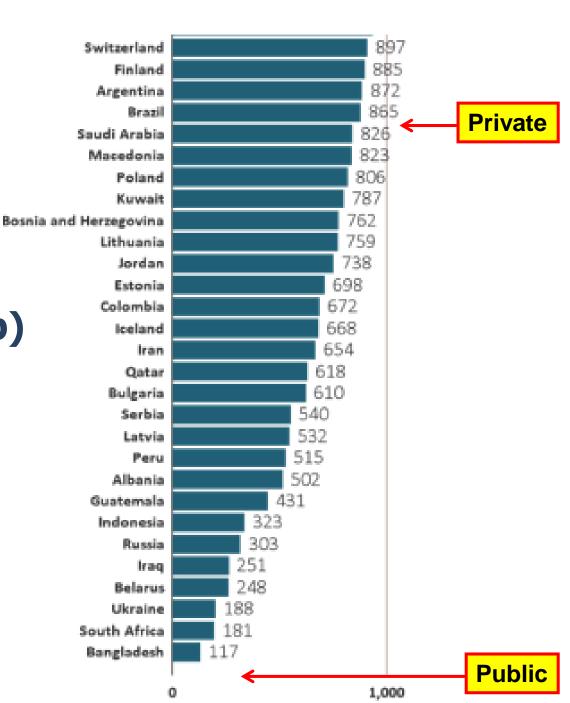




Prevalence by sector

	Public	Private
Population in millions	47.65	8.87*
ESRD patients on treatment	3135	7418
Treatment rate (pmp)	66	836

^{*} Council for Medical Schemes Annual Report 2017/18



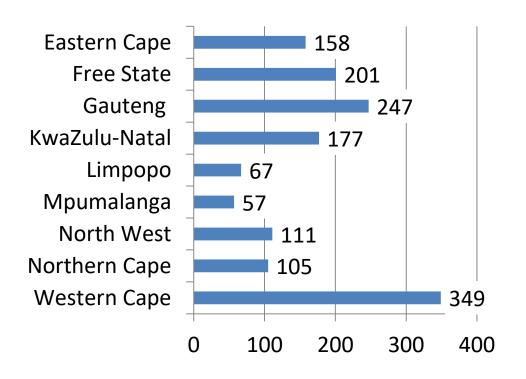
South Africa: prevalence (pmp) by sector 2017

Public	Private
66	836

How many patients should we be treating?

	GNI per capita US\$	Prevalence
Bangladesh	1330	119
Indonesia	3540	206
Philippines	3850	319
Colombia	6310	624
Egypt	3410	624
Thailand	5640	1485
South Africa	5490	187

Prevalence and numbers of patients on RRT by province

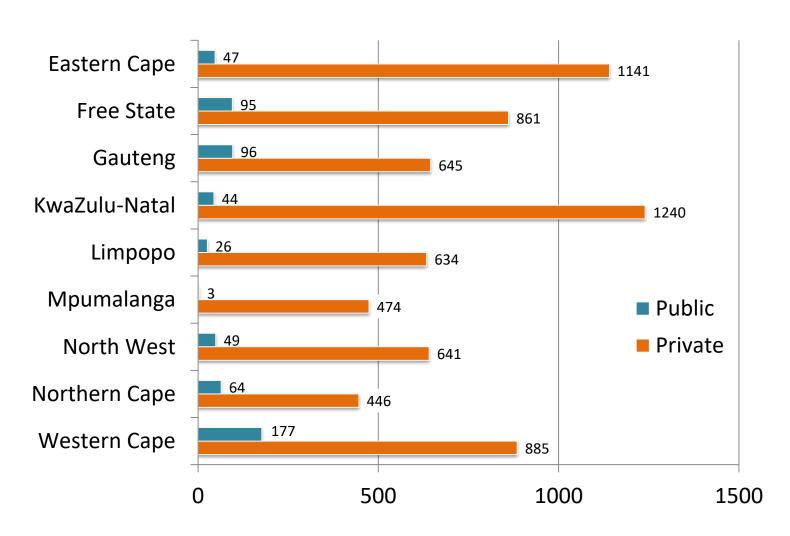


Province	EC	FS	GT	KZ	LP	MP	NW	NC	WC	All
Patients	1 027	577	3 525	1 959	388	252	428	128	2 269	10 553

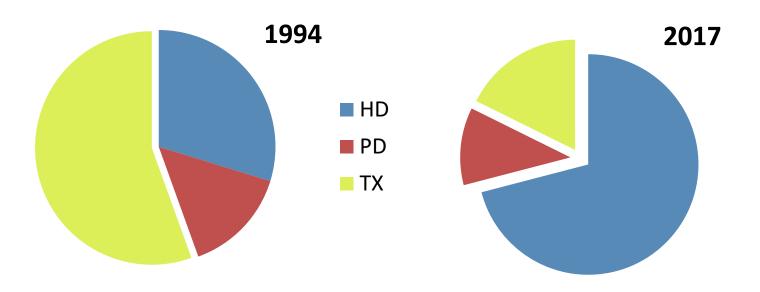
Numbers of patients by province and sector

Sector	EC	FS	GT	KZ	LP	MP	NW	NC	wc	All
Public	304	239	1 005	326	143	5	155	66	892	3 135
Private	723	338	2 520	1 633	245	247	273	62	1 377	7 418
Total	1 027	577	3 525	1 959	388	252	428	128	2 269	10 553

Prevalence of RRT by province and sector

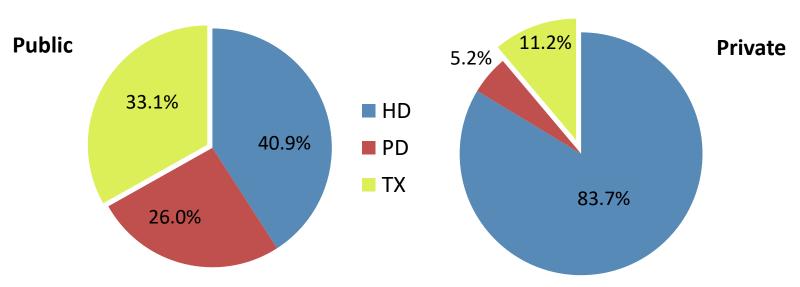


Treatment modality



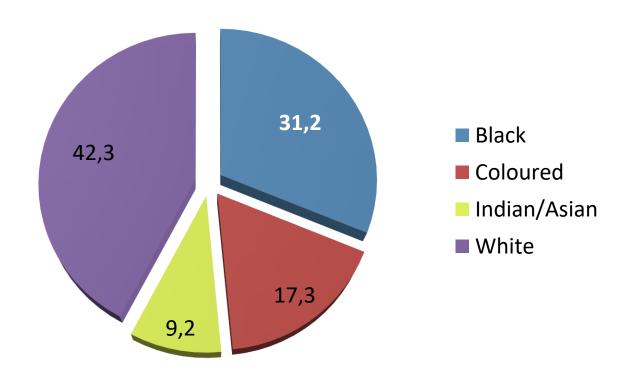
Treatment modality	Patients 1994	%	Patients 2016	%
Haemodialysis	846	29.8	7487	71.0
Peritoneal dialysis	419	14.7	1200	11.4
Transplant	1578	55.5	1866	17.7

RRT modality by sector



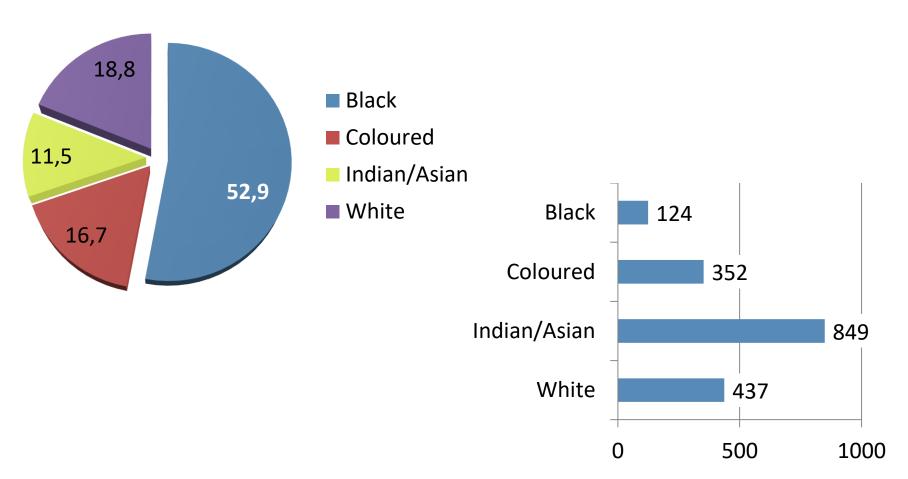
Treatment	Public	sector	Private sector		
modality	Patients	%	Patients	%	
Haemodialysis	1282	40.9	6205	83.7	
Peritoneal dialysis	814	26.0	386	5.2	
Transplant	1039	33.1	827	11.2	

Distribution by ethnicity: 1994



Data on ethnicity based on all patients on file.

RRT patient numbers and prevalence by ethnicity 2017



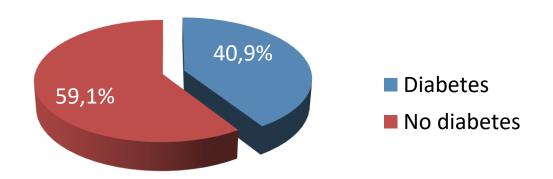
Data on ethnicity available for 10 329 patients

Most commonly reported causes of ESRD

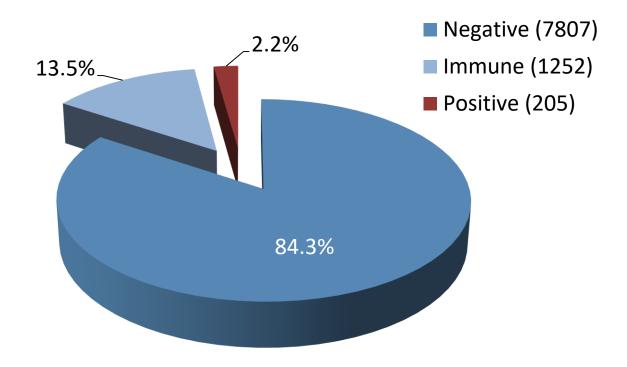
	% of total
Hypertensive renal disease	35.2
Cause unknown	31.5
Diabetic nephropathy	15.4
Glomerular disease	10.1
Cystic kidney disease	3.0
Obstruction and reflux	1.8

Patients on RRT with diabetes

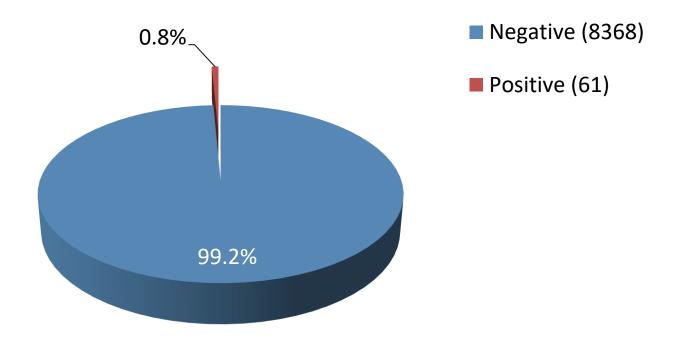
	Diabetics	% of total
Public (n = 2996)	571	19.1
Private (n = 6991)	3511	50.2
All (n= 9987)	3779	38.7



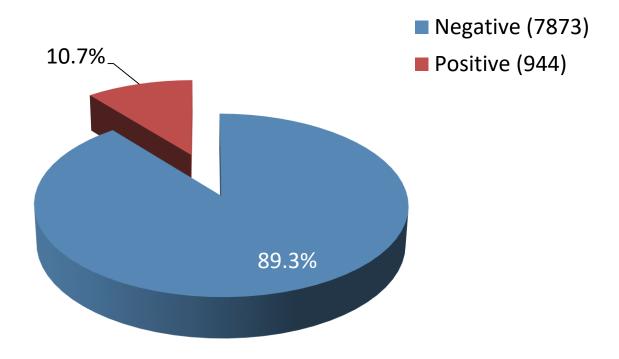
Hepatitis B status



Hepatitis C status



HIV status

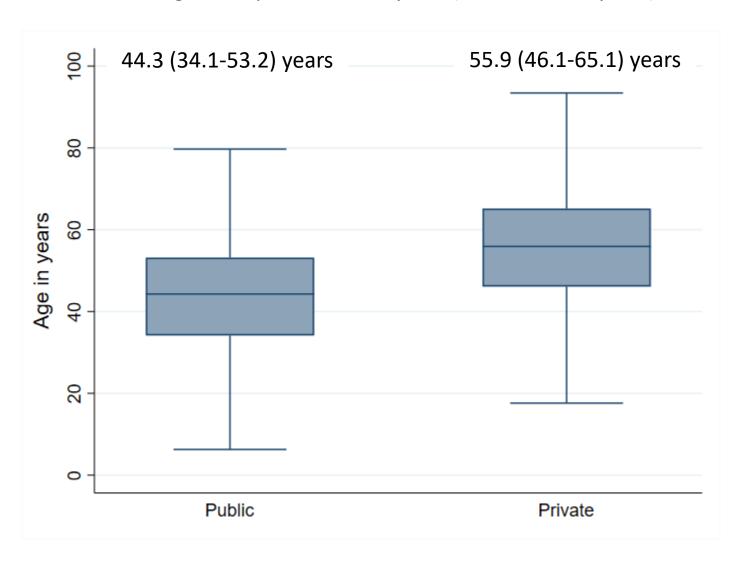


Vascular access

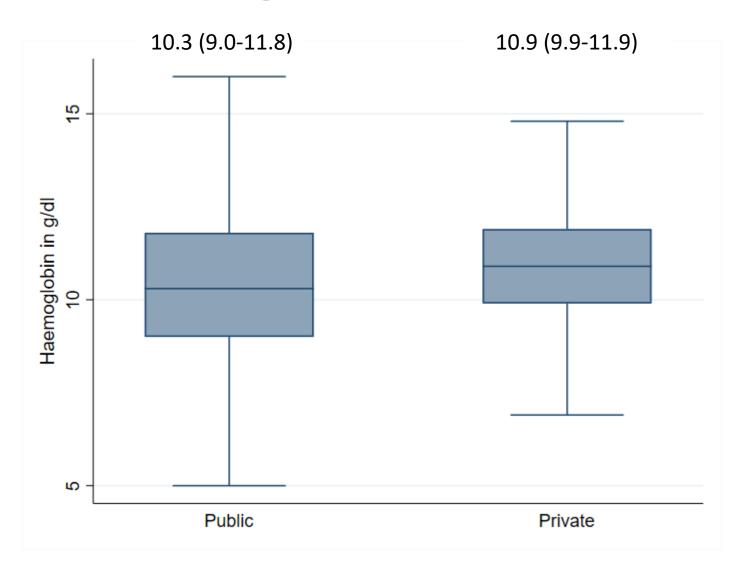
	Public	Private	All sectors
AV fistula	476 (45.6%)	1863 (52.4%)	2339 (50.9%)
AV graft	17 (1.6%)	262 (7.4%)	279 (6.1%)
Tunnelled catheter	516 (49.5%)	1230 (34.6%)	1746 (38.0%)
Temporary catheter	34 (3.3%)	200 (5.6%)	234 (5.1%)
All access types	1043	3555	4598

Age by sector

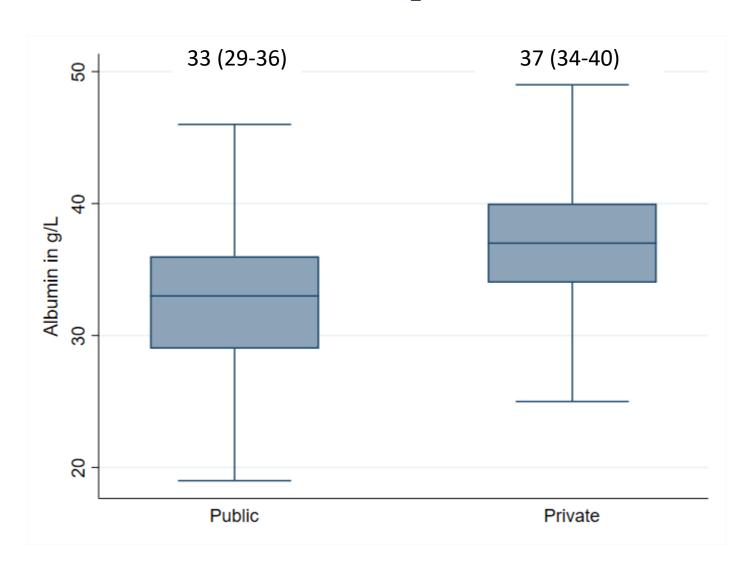
Median age of all patients: 52.5 years (IQR 41.6-62.3 years)



Haemoglobin by sector



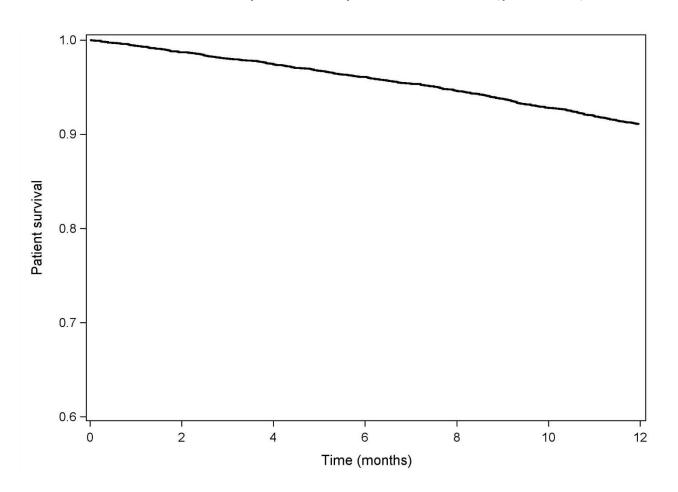
Albumin by sector

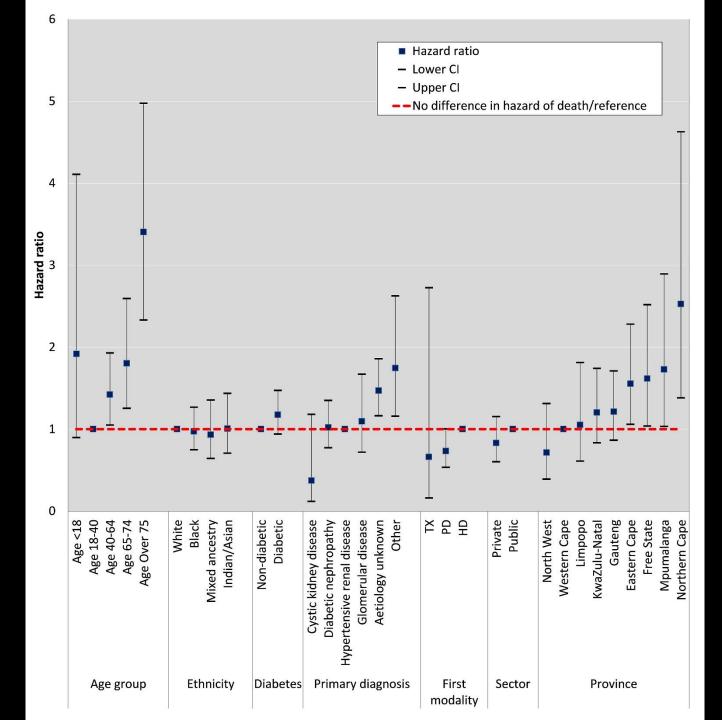


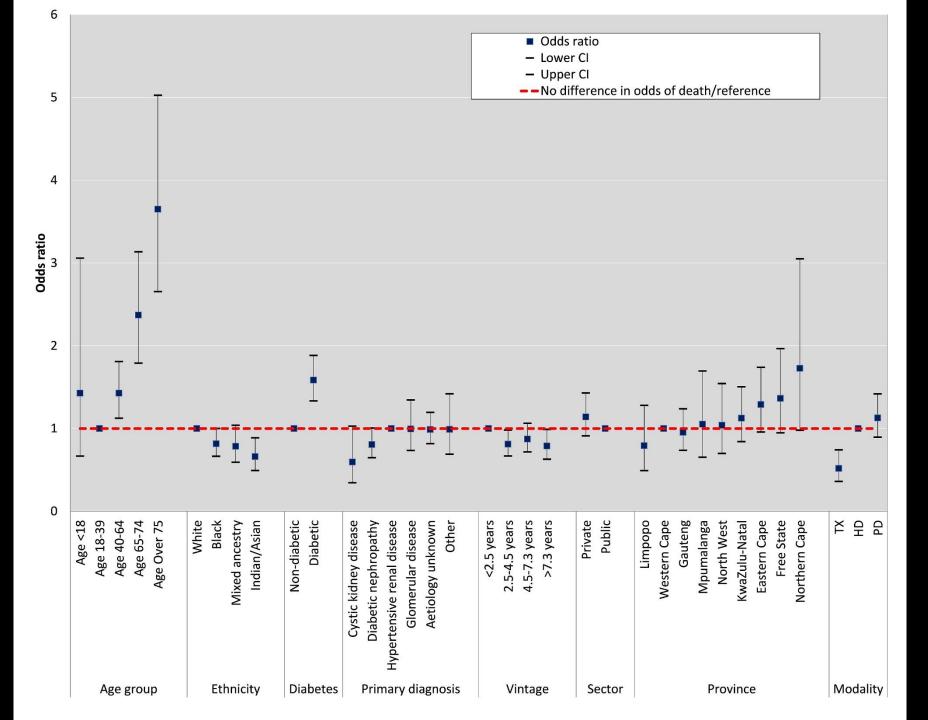
One-year patient survival

Incident patients: Overall survival 90.4%

No difference in public vs. private sectors (p = 0.18)

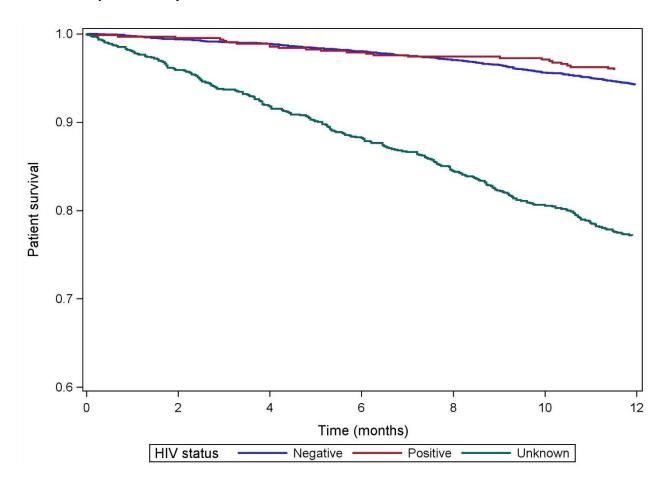




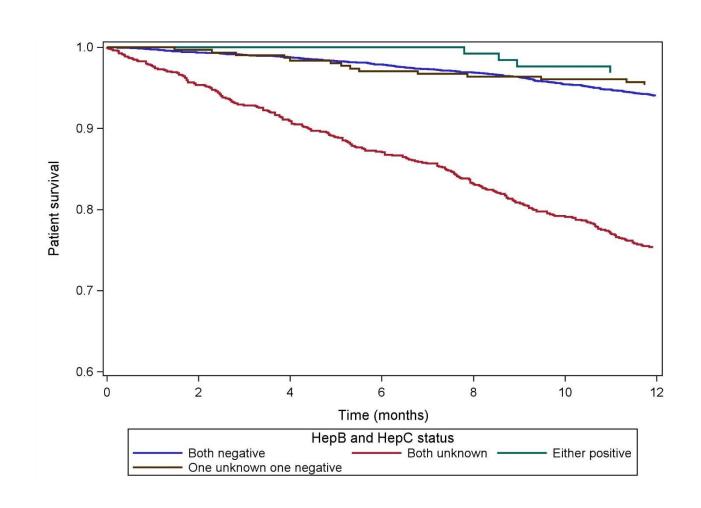


One-year survival by HIV status

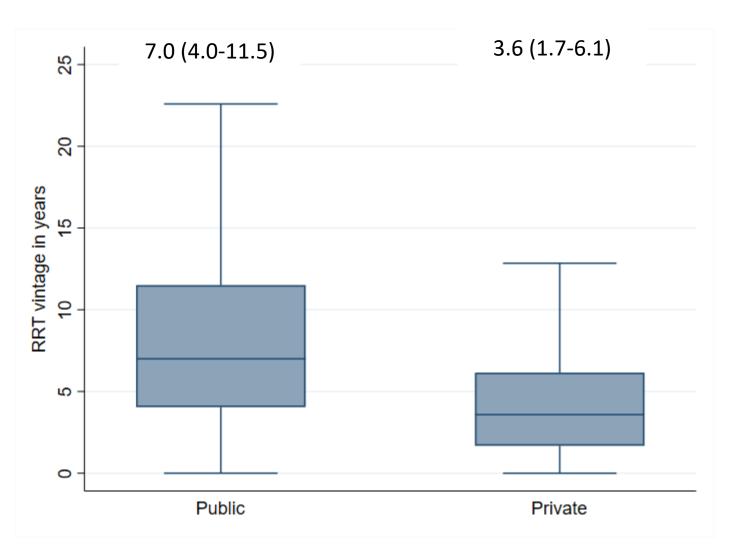
Incident patients: Survival 95.9% and 94.2% in HIV-positive and HIV-negative patients, respectively. Survival in those without data on HIV status 77.1%.



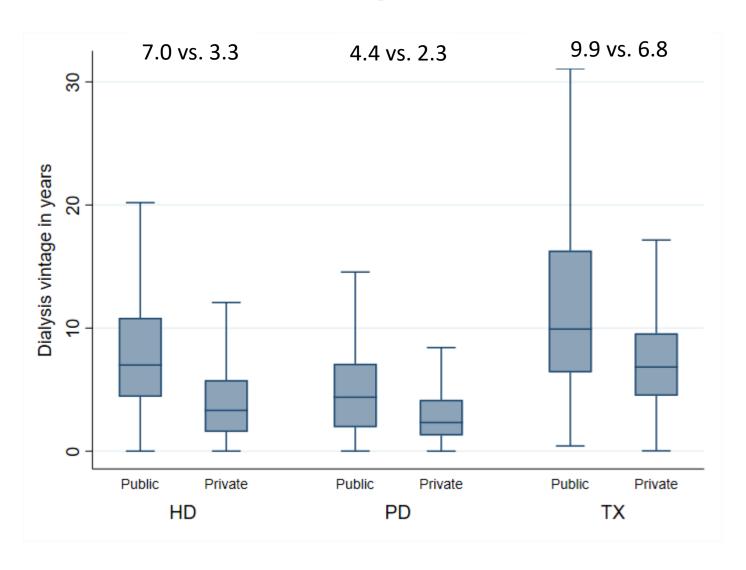
One-year survival by hepatitis B and C status



RRT vintage (years)



RRT vintage (years)



The African Renal Registry



Accra 2013 ... Cape Town 2015 ... Yaoundé 2017 ... Johannesburg 2018

SARS-AFRAN-ERA-EDTA Renal Registry Workshop – 12 March 2015

Supported by the International Society of Nephrology and hosted by the South African Renal Society Venue: Meeting room 4053B, 4^{th} floor, Faculty of Medicine and Health Sciences, Stellenbosch University, Cape Town, South Africa

















Advantages of one platform

- All countries access a reliable platform
- Joint fundraising and cost sharing
- Updates available to all immediately
- Single data dictionary
- Sharing of expertise
- Platform for research and training
- Foster sense of unity and common purpose

African Renal Registry: Ghana

Registration form for Razeen Davids

Logout First name Razeen Date of birth 17/12/1963 53 years old Surname Davids Date ESRD 02/09/2004 On RRT for 12 Years **ID Number** Treating doctor Boima, Vincent Folder/passport no. UnitKorle-Bu Teaching Hospital SectorState | Primary renal disease Autosomal dominant (AD) polycystic kidney disease type I Province of residence **Ethnicity** First modality Diabetes G-Accra Western Ga HD Gender Non diabetic Ashanti Brong-Ahafo Akan O PD Male Central Northern Ewe Female TX Unknown Eastern Upper E/W Mole-Dagbani Unknown Volta Outside Ghana Other/Unknown Type 1 DM Type 2 DM Diabetic (type unknown) HepB HepC HIV Negative Negative Negative Positive Carrier Positive Unknown Unknown Immune Unknown

Save

Exit without saving

Current status

- Ethics approval obtained for ARR
- Registry platform adapted
- Ghana: Vincent Boima
- Burundi: Joseph Nyandwi
- Zambia: Kenneth Kapembwa
- Kenya: Jonathan Wala
- Botswana: Walter Moloi





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CKJ REVIEW

A renal registry for Africa: first steps

M. Razeen Davids¹, John B. Eastwood², Neville H. Selwood³, Fatiu

A. Arogundade⁴, Gloria Ashuntanta Faiçal Jarraya⁷, Iain A.M. MacPhee², Charles R. Swanepoel¹⁰ and Dwom Nephrology and the African Paedia



Strengthening Renal Registries and ESRD Research in Africa



M. Razeen Davids, MBChB, FCP(SA), MMed, PhD,* Fergus J. Caskey, MBChB, MSc, MD, FRCP,*
Taryn Young, MBChB, FCPHM(SA), MMed, PhD,* and
Gillian K. Balbir Singh, MBChB, FRACP, MPH*

Summary: In Africa, the combination of noncommunicable diseases, infectious diseases, exposure to environmental toxins, and acute kidney injury related to trauma and childbirth are driving an epidemic of chronic kidney disease and end-stage renal disease (ESRD). Good registry data can inform the planning of renal services and can be used to argue for better resource allocation, audit the delivery and quality of care, and monitor the impact of interventions. Few African countries have established renal registries and most have failed owing to resource constraints. In this article we briefly review the burden of chronic kidney disease and ESRD in Africa, and then consider the research questions that could be addressed by renal registries. We describe examples of the impact of registry data and summarize the sparse primary literature on country-wide renal replacement therapy in African countries over the past 20 years. Finally, we highlight some initiatives and opportunities for strengthening research on ESRD and renal replacement therapy in Africa. These include the establishment of the African Renal Registry and the availability of new areas for research. We also discuss capacity building, collaboration, open-access publication, and the strengthening of local journals, all measures that may improve the quantity, visibility, and impact of African research outputs.

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Keywords: Renal registry, translational research, open access. Africa, research impact

he World Health Organization (WHO) estimates that approximately 60% of global deaths are caused by noncommunicable diseases (NCDs), with most occurring in low- and middle-income countries (LMICs). Africa is a continent consisting of 54 low- and middle-income countries, home

their economic productivity. This has serious economic consequences for families and communities. Health care costs for chronic diseases can drain household resources and result in the loss of breadwinners, thereby contributing to the persistence of poverty and the lack of economic growth in many African countries.





Challenges

- data completeness, accuracy
- funding
- human resources
- mandatory data submission
- access to other data sources
- privacy and consent issues
- roll-out to other countries





mrd@sun.ac.za

RRT vintage (years)

	All RRT	HD	PD	TX
Public sector	6.4	6.3	4.3	10.5
Private sector	3.4	3.2	2.4	6.6
All	4.2	3.7	3.5	8.3

Centres by province and sector

	EC	FS	GT	KZ	LP*	MP	NW	NC	WC	ALL
Public	3	6	7	5	0	0	3	1	5	30
Private	18	13	67	61	13	11	11	4	32	230
Total	21	19	74	66	13	11	14	5	37	260

^{*} One privately-owned unit in Limpopo operates as a public-private partnership on the premises of a public hospital and serves mainly state patients.

New kidney transplants in 2016

	Deceased donor		Living related		Living unrelated		Total
	С	Α	С	Α	С	Α	
Western Cape - Public	3	38	1	16	0	3	61
Western Cape - Private	0	22*	0	25	0	9	56
Gauteng - Public	3	25	0	4	0	0	32
Gauteng - Private	3**	30***	5	20	0	11	69
KwaZulu-Natal - Public	0	0	0	9	0	0	9
KwaZulu-Natal - Private	1	11	0	10	0	3	25
Free State - Public	0	0	0	0	0	0	0
Free State - Private	0	0	0	2	0	0	2
Total	10	126	6	86	0	26	254

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

The kidney transplant rate for 2016 was 4.5 pmp.

Data supplied by the SA Organ Donor Foundation.

^{*}Includes 1 adult kidney-liver transplant **Includes 1 child kidney-liver transplant.

^{***}Includes 2 adult kidney-liver transplants and 1 adult kidney-pancreas transplant.

The African Renal Registry

	Burundi	Ghana	Kenya	Zambia
HD	44	740	509	105
PD	1	2	0	15
TX	0	25	0	7
All	45	767	509	127

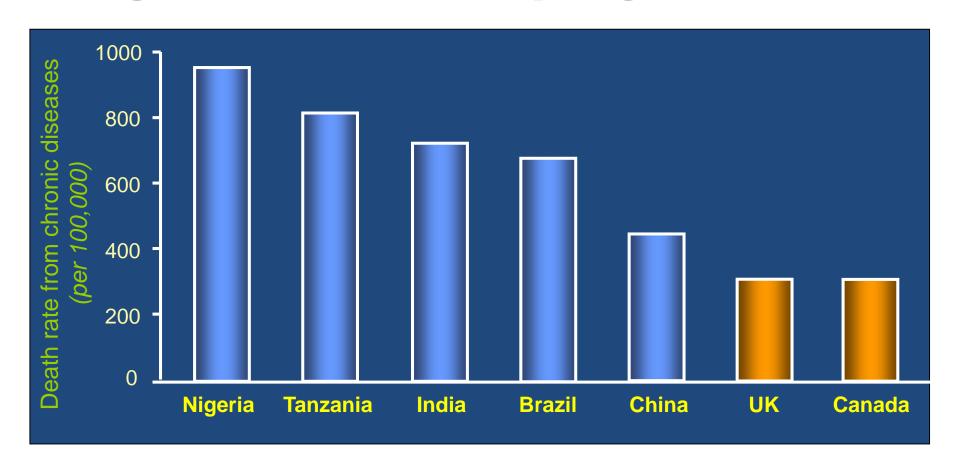
Areas for improvement

- basic data: age, RRT start date
- primary renal diagnosis
- diabetes status, HIV status
- end of treatment data
- year-end assessments

New kidney transplants

Year	Total	% Living donor
2012	248	46.4
2013	246	43.9
2014	219	44.7
2015	261	39.1
2016	254	46.5
2017		
2018		

Death rate from NCDs highest in developing countries



Response to release of the first SA Renal Registry Report



SOUTH AFRICAN RENAL REGISTRY ANNUAL REPORT 2012

MR Davids, N Marais and JC Jacobs

Presentation to Health Minister Aaron Motsoaledi





Summit on an effective approach to CKD

HEALTHCARE DELIVERY

An effective approach to chronic kidney disease in South Africa

M R Moosa, A M Meyers, E Gottlich, S Naicker

Rafique Moosa, MB ChB, FCP (SA), MD, FRCP (Lond), is a member of the Ministerial Advisory Committee on Transplantation, Executive Head of Medicine, Faculty of Medicine and Health Sciences, Stellenbosch University, Tygerberg, Cape Town, South Africa, and a specialist nephrologist at Tygerberg Academic Hospital, Cape Town. Tony Meyers, MB BCh, FCP (SA), FRCP (Lond), is Emeritus Professor of Medicine in the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa, and Chairman of the National Kidney Foundation. Errol Gottlich, MB BCh, DCH, FCP Paeds (SA), Cert Nephrol (Paeds) (SA), is a paediatric nephrologist at Morningside Mediclinic, Johannesburg. Sarala Naicker, MB ChB, MRCP (UK), FRCP (Lond), PhD, is a member of the Ministerial Advisory Committee on Transplantation and Emeritus Professor of Medicine in the Faculty of Health Sciences, University of the Witwatersrand.

Corresponding author: M R Moosa (rmm@sun.ac.za)

Very few patients with end-stage kidney disease in South Africa receive renal replacement treatment (RRT), despite the rapidly growing demand, because of resource constraints. Nephrologists who agonise daily about who to treat and who not to, and have been doing so since the inception of dialysis in this country, welcomed the opportunity to interact with the National Department of Health at a recent summit of stakeholders. The major challenges were identified and recommendations for short- to long-term solutions were made. While the renal community can still improve efficiencies, it is clear that much of the responsibility for improving access to RRT and reducing inequities must be borne by the national government. The summit marks the first step in a process that we hope will ultimately culminate in universal access to RRT for all South Africans.

S Afr Med I 2016:106(2):156-159, DOI:10.7196/SAMI.2016.v106i2.9928



Fewer than 5% of all patients with end-stage kidney disease (ESKD) in sub-Saharan Africa receive dialysis, with patients in several countries having no access at all.^[1] While the situation is somewhat less dire in South Africa (SA), we compare very poorly

with countries that are our economic peers (Fig. 1). The recent release of the South African Renal Registry by the South African Renal Society^[2] produced data that were so alarming that the National Department of Health (NDoH) convened a national summit to discuss the challenges faced in SA. Delegates to the summit included relevant stakeholders: public and private sector clinicians, healthcare funders, representatives of the pharmaceutical industry and the NDoH, a representative of the World Health Organization made a minimum prescribed benefit, the private sector facilities have grown by over 3 000% over two decades, but in contrast there has been no significant growth in renal services in the public sector that serves over 80% of the country's population.^[2] The renal community faces a major shortage of skilled personnel and reflects the national skills challenges.^[5]

The lack of appropriate and adequate skilled personnel has hampered the development of renal care in SA. Insufficient numbers of personnel are being trained and effective retention strategies are lacking. To address the situation, the summit proposed medium- and long-term strategies. In order to ensure high-quality renal care it was agreed that a nephrologist (or a specialist physician where no nephrologist is available) should be attached to every dialysis unit. SA currently