

**Fact sheet**

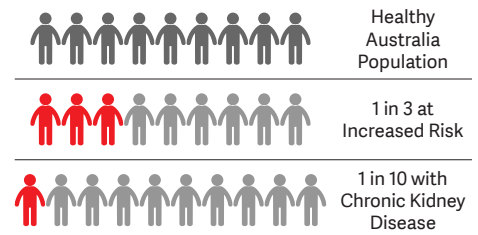
# Kidney Fast Facts



## How many people have chronic kidney disease (CKD)?

- Approximately 1.7 million Australians (1 in 10) aged 18 years and over have indicators of CKD such as reduced kidney function and/or the presence of albumin in the urine<sup>1</sup>
- Less than 10% of the people with CKD are aware they have this condition<sup>2</sup>
- This means over 1.5 million Australians are unaware they have indicators of CKD.

### How much CKD in Australia?

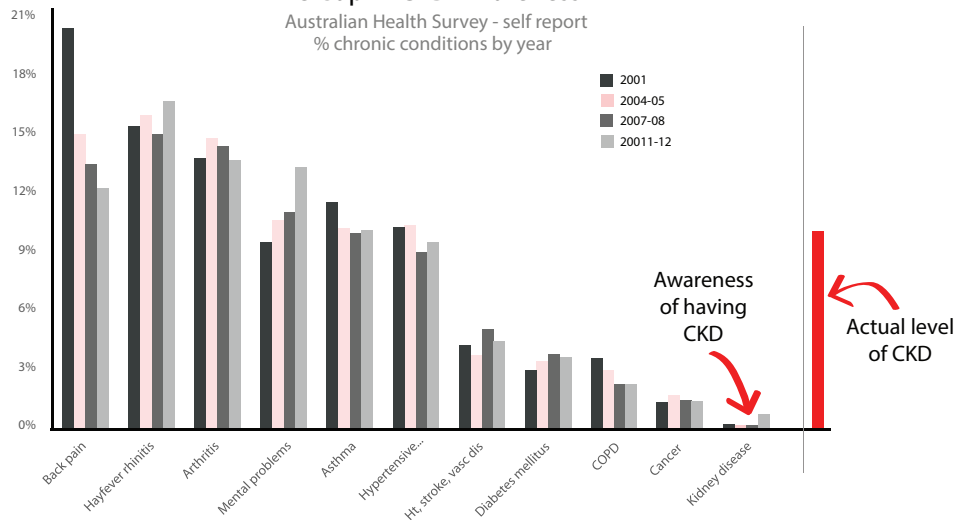


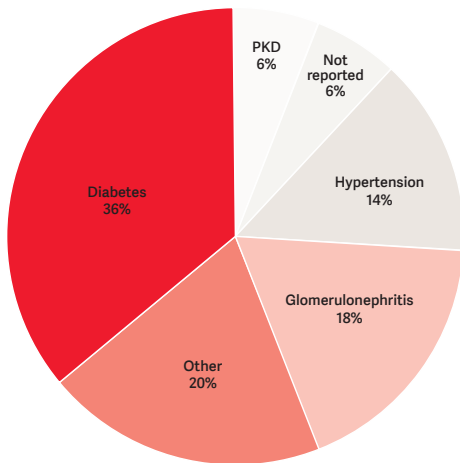
**1 in 1400 on dialysis or living with a transplant.**

## Who is at increased risk of CKD?

- 1 in 3 adult Australians is at an increased risk of developing CKD<sup>3</sup>
- Adult Australians are at increased risk of CKD if they:
  - have diabetes
  - have high blood pressure
  - have established heart problems (heart failure or heart attack) and/or have had a stroke
  - have a family history of kidney failure
  - are obese (Body Mass Index  $\geq 30$ )
  - are a smoker
  - are 60 years or older
  - are of Aboriginal or Torres Strait Islander origin
  - have a history of acute kidney injury

### The Gap In CKD Awareness





## What causes kidney failure?

Data from the Australia and New Zealand Dialysis and Transplant (ANZDATA) Registry shows that the three most common causes of kidney disease requiring renal replacement therapy (dialysis or transplant) in Australia in 2016 were diabetes, glomerulonephritis (inflammation of the kidney) and hypertension (high blood pressure)<sup>4</sup>.

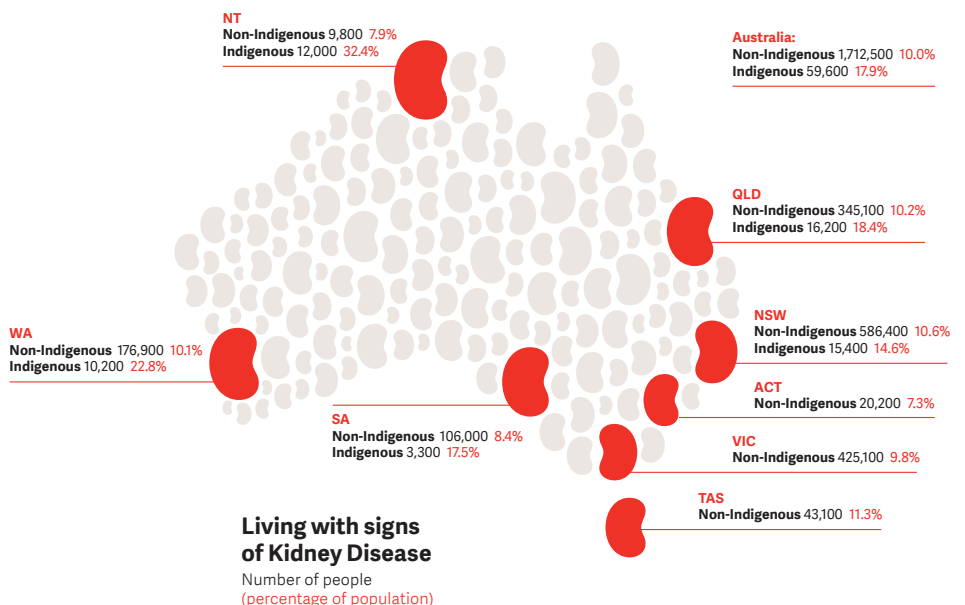
## Why worry about CKD?

In Australia CKD is:

- Common
  - 10% of people visiting a general practitioner have CKD, but most do not know it<sup>5</sup>
  - 42% of people over 75 years of age have an indicator of CKD<sup>1</sup>.
- Harmful
  - People with CKD have a 2 to 3-fold greater risk of cardiac death than people without CKD<sup>6</sup>
  - For people with CKD, the risk of dying from cardiovascular events is 20 times greater than the risk of requiring dialysis or transplantation<sup>7</sup>.
- Treatable
  - If CKD is detected early and managed appropriately, then the otherwise inevitable deterioration in kidney function can be reduced by as much as 50% and may even be reversible<sup>8</sup>.

## Kidney disease among Aboriginal and Torres Strait Islander people

- In 2012-13, almost 1 in every 5 (18%) Aboriginal and Torres Strait Islander people aged ≥18 years had indicators of CKD<sup>9</sup>. Yet 9 in 10 of this group were unaware that they were at risk.
- Aboriginal and Torres Strait Islander people are more than twice as likely as non-Indigenous people to have indicators of CKD. They are 3 times as likely to have indicators of Stage 1 CKD, and more than 4 times as likely as non-Indigenous people to have indicators of Stages 4-5 CKD<sup>9</sup>.
- Adults living in remote areas are more than twice as likely as those living in non-remote areas to have signs of CKD (34% compared with 13%)<sup>9</sup>.
- The incidence of end stage kidney disease for Indigenous peoples in remote areas of Australia is 18 - 20 times higher than that of comparable non-Indigenous peoples<sup>10</sup>.
- Although Aboriginal and Torres Strait Islander people represent less than 2.5% of the national population, they account for approximately 9% of people commencing kidney replacement therapy each year.
- Aboriginal and Torres Strait Islander people are almost 4 times as likely to die with CKD as a cause of death than non-Indigenous Australians<sup>11</sup>.



## Treatment for kidney failure

The most recent data from the ANZDATA Registry<sup>4</sup> shows:

- 2,714 people started kidney replacement therapy (dialysis or transplant) in 2016, with an overall incidence rate of 112 per million population (pmp). This rate has remained stable for several years.
- 23,839 people were receiving renal replacement therapy at the end of 2016, with an overall prevalence of 991 pmp. The prevalence of both dialysis and transplantation continues to grow in Australia, although the growth in dialysis prevalence has slowed in recent years.

- 19% of people who begin kidney replacement therapy are referred 'late' to a nephrologist i.e. less than 3 months before beginning kidney replacement therapy. The rates of late referral have fallen in recent years, and this has been experienced in all Australian states and across all age groups
- In Australia, late referral is more common among people of Maori (24%), Pacific Island (26%), and Indigenous Australian origin (20%) compared with the Caucasian population (19%).

- Late referral also varies according to the primary cause of kidney disease, with the rates of late referral low in people with polycystic kidney disease (8%), but higher in cases where the cause of kidney disease is uncertain (29%) or listed as "other" (31%).

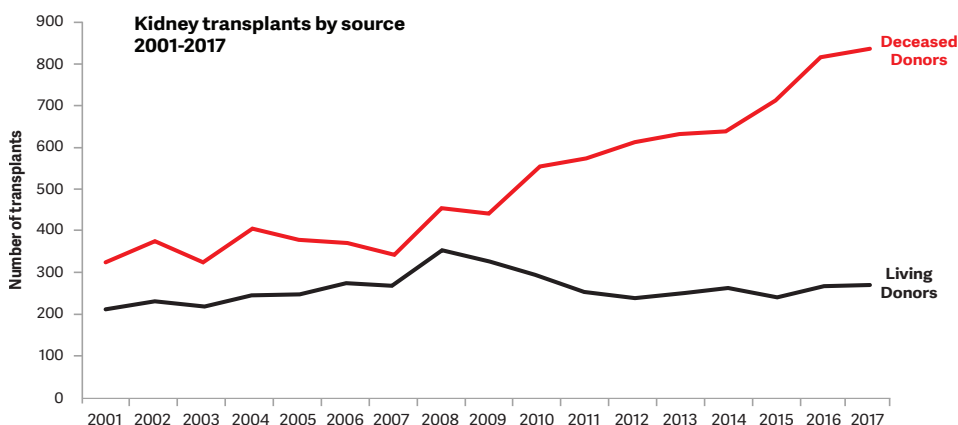
### Dialysis

- 12,706 people were receiving dialysis treatment at the end of 2016<sup>4</sup>.
- Dialysis treatments at the end of 2016.
  - 28% use home dialysis (haemodialysis or peritoneal dialysis).
  - 49% use satellite dialysis.
  - 23% use hospital dialysis.
- In 2016, home dialysis as a percentage of all dialysis was 29% in Queensland, 36% in New South Wales, 26% in Victoria, 31% in Tasmania, 20% in South Australia, 10% in the Northern Territory, 23% in Western Australia, and 19% for the Australian Capital Territory.

### Transplantation

- In 2017 there were 510 deceased organ donors in Australia, who saved or improved the lives of 1,675 people<sup>12</sup>.
- The number of deceased organ donors in 2017 was the highest donation outcome achieved in Australia, and has more than doubled since 2009<sup>12</sup>.
- In 2017 there were 841 kidneys transplanted from deceased donors, and 271 kidneys transplanted from living donors<sup>12</sup>.
- A total of 11,133 Australians were living with a functional kidney transplant at the end of 2016 – this represents a 2.4% increase from 2015.
- As of September 2018, 1,003 people were waiting for a kidney transplant in Australia<sup>13</sup>.

- The majority of people on the waiting list are aged less than 60 years (81%), and 62% are male<sup>4</sup>.
- The average waiting time for a transplant is 3 years but waits of up to 7 years are not uncommon<sup>14</sup>.
- In 2016, 797 people on the kidney transplant waiting list received a transplant (42% of the waiting list), but 8 patients (0.7%) died while waiting for a transplant<sup>4</sup>.
- The survival rate following a kidney transplant is high - 97% of recipients from deceased donors are alive at 1 year, and 90% are alive at 5 years. The survival rate following a kidney transplant from a living donor is even higher - 100% at 1 year, and 97% at 5 years<sup>4</sup>.



## The cost to the Australian health system

- In 2012, the total costs attributable solely to CKD were an estimated \$4.1 billion, made up of \$2.5 billion in direct healthcare costs, \$700 million in direct non-healthcare costs, and \$900 million in government subsidies<sup>15</sup>.
- The best available evidence<sup>16</sup> on cost per person per year on dialysis is:
  - hospital haemodialysis - \$79,072
  - satellite haemodialysis - \$65,315
  - home haemodialysis - \$49,137
  - peritoneal dialysis - \$53,112
- The cost of treating end-stage kidney disease from 2009 to 2020 is estimated to be around \$12 billion to the Australian Government.
- Dialysis is the most common single reason for hospital care, and accounts for 1.4 million separations from public and private hospitals (14% of the 10.2 million hospital separations)<sup>17</sup>.
- Hospitalisation rates from acute kidney injury have more than doubled over the last decade, and now represent 2% of all hospitalisations<sup>18</sup>.

## Mortality from kidney disease

Data from the Australian Bureau of Statistics<sup>19</sup> show:

- Around 53 people die every day with kidney related disease.
- Kidney-related disease kills more people each year than breast cancer, prostate cancer or even road traffic accidents.
- In 2016, diseases of the kidney and urinary tract were the 10<sup>th</sup> leading cause of death in Australia, with 3,352 deaths.
- Diseases of the kidney and urinary system contribute to approximately 14% of all Australian deaths.

## Reference List

1. Australian Bureau of Statistics. Australian Health Survey: Biomedical Results for Chronic Diseases, 2011-12. ABS, Canberra; 2013.
2. Australian Bureau of Statistics. Australian health survey: First results 2011-12. 2012. Report No.: 4364.0.55.001.
3. Chadban SJ, Briganti EM, Kerr PG et al. Prevalence of kidney damage in Australian adults: The AusDiab kidney study. *J Am Soc Nephrol* 2003 July;14(7 Suppl 2):S131-S138.
4. ANZDATA Registry. The 40<sup>th</sup> Annual ANZDATA Report. Australia and New Zealand Dialysis and Transplant Registry, Adelaide, Australia. Available at: <http://www.anzdata.org.au>; 2017.
5. Australian Institute of Health. BEACH-SAND Report. Bettering the evaluation and care of health. Chronic renal failure/kidney disease. 2007.
6. Foley RN, Parfrey PS, Sarnak MJ. Clinical epidemiology of cardiovascular disease in chronic renal disease. *Am J Kidney Dis* 1998;32:S112-S119.
7. Keith DS, Nichols GA, Gullion CM, Brown JB, Smith DH. Longitudinal follow-up and outcomes among a population with chronic kidney disease in a large managed care organization. *Arch Intern Med* 2004 March 22;164(6):659-63.
8. Johnson DW. Evidence-based guide to slowing the progression of early renal insufficiency. *Intern Med J* 2004 January;34(1-2):50-7.
9. Australian Bureau of Statistics. Australian Aboriginal and Torres Strait Islander Health Survey: Biomedical Results, 2012-13. 2014. Report No.: 4727.0.55.003, Canberra.
10. Stumpers S, Thomson N. Review of kidney disease among Indigenous people. *Australian Indigenous Health Bulletin* 2013;13(2).
11. Australian Institute of Health and Welfare. Chronic Kidney Disease in Aboriginal and Torres Strait Islander people 2011. Canberra Australia: AIHW; 2011. Report No.: Cat. No. PHE 151.
12. Australian Donation and Transplantation Activity Report. 2017. Available at: [donatelifelife.gov.au](http://donatelifelife.gov.au).
13. Australian waiting list. Available at <http://www.anzdata.org.au/anzod/v1/waitinglist2018.html>.
14. Wright J, Narayan S. Analysis of kidney allocation during 2015. 2016.
15. Wyld MLR, Lee CMY, Zhuo X et al. Cost to government and society of chronic kidney disease stage 1-5: a national cohort study. *Int Med J* 2015;45(7):741-7.
16. Cass A, Chadban S, Gallagher M et al. The economic impact of end-stage kidney disease in Australia: Projections to 2020. Kidney Health Australia, Melbourne, Australia; 2010.
17. Australian Institute of Health and Welfare. Admitted patient care 2014-15: Australian hospital statistics. Health services series no. 68. Cat. no. HSE 172. Canberra: AIHW; 2016.
18. Australian Institute of Health and Welfare. Acute kidney injury in Australia: A first national snapshot. Cat. no. PHE 190. Canberra: AIHW; 2015.
19. Australian Bureau of Statistics. Causes of Death, Australia, 2016. 2017.

For more information about kidney or urinary health, please contact our free call Kidney Helpline on 1800 454 363.

Or visit our website [kidney.org.au](http://kidney.org.au) to access free health literature.

This is intended as a general introduction to this topic and is not meant to substitute for your doctor's or health professional's advice. All care is taken to ensure that the information is relevant to the reader and applicable to each state in Australia. It should be noted that Kidney Health Australia recognises that each person's experience is individual and that variations do occur in treatment and management due to personal circumstances, the health professional and the state one lives in. Should you require further information always consult your doctor or health professional.



If you have a **hearing or speech impairment**, contact the National Relay Service on **1800 555 677** or [relayservice.com.au](http://relayservice.com.au)

For all types of services ask for 1800 454 363