Kidney Health® Australia

Transforming Australia's kidney health:

A call to action for early detection and treatment of chronic kidney disease

kidney.org.au

"With kidney disease, you really don't know what's going on under the surface."

Jodie Jeeves

In 2019, father-of-five Shane Jeeves was told his kidney function had deteriorated to just six per cent. He had been diagnosed with kidney disease in 2013, but didn't realise there was anything he needed to do – after all, he felt fit and healthy.

Shane wished he'd known there were steps that could be taken to manage his diagnosis and slow the progression of the disease. Just one year later, Shane died from a related heart attack at 48 years old.

Chronic kidney disease (CKD) is a silent and insidious condition that steals the opportunity, the future, and the lives of too many Australians.

It is a condition that doesn't discriminate. Over 2 million Australians are affected by CKD, including 1.8 million who are unaware they are living with the condition.[1] First Nations Australians are twice as likely to have signs of CKD (22% and 10% respectively).[1]

CKD is often preventable and disease progression can be slowed or even stopped if detected and treated early. However, up to 90 per cent of kidney function is often lost before patients experience symptoms, many people don't know they have kidney disease until it is too late.[1] For many like Shane's widow Jodie, the pain of knowing early detection could have given her family more time together is immense.

This early diagnosis is critical as there's no cure for CKD. Once your kidneys have failed, the options are prolonged dialysis, waiting for a transplant, or losing your life. Adding to the strain on patients is the close link between CKD and two of Australia's largest chronic diseases (diabetes and cardiovascular disease) – if you have one condition, your risk of experiencing another chronic disease increases significantly, compounding the consequence for this insidious disease.

We urgently need to intervene and introduce targeted early detection for CKD.

Early detection and best-practice management for CKD have never been more crucial and we have more tools than ever before in the fight against kidney failure.

Dialysis and transplantation take an immense toll – on our patients, their families and support systems, and on our already stretched federal healthcare system.

Right now, kidney disease costs the Australian economy an estimated **$9.9 billion annually** including **$2.3 billion** in costs to the Australian health system.[1] This equates to **$4,795 per Australian diagnosed** – however, this cost surges to **$182,000 for every person** whose CKD progresses to kidney failure.[1]

Australia could save $509 million annually, or $10.2 billion across the next 20 years, if we invest in early detection of CKD.[1] We have a choice.

Early detection is simple and enables Australians to take the health of their kidneys into their own hands. We can invest in early detection that preserves the futures of our community, saves lives, and eases the current and oncoming pressure on our health system. Or we can continue the current costly trajectory of waiting too late and relying on life-altering and expensive treatment for people whose kidneys have already failed.

Very soon, I hope to tell Shane's family that every Australian living with CKD will be diagnosed early and receive the best possible care for their condition.

Chris Forbes
Chief Executive Officer
Kidney Health Australia

Chronic kidney disease (CKD) affects more than **2 million** Australians – that's **one in every 10 Australian adults** – yet it is unknown, under-diagnosed, and on the rise[1]

"I had all the markers of kidney disease, but it wasn't picked up."
Shailendra

1.3M
Australians (63.9%) are **living with early-stage CKD** - many of whom have no symptoms

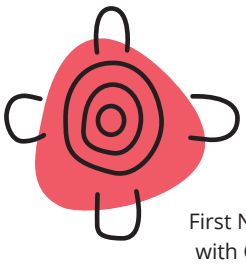
710k
Australians (34.6%) have **mid-stage CKD**

31k
Australians (1.5%) are **living with kidney failure**

2x
The number of Australians receiving kidney replacement therapy **more than doubled** between 2000 and 2020, from 11,700 to 27,700

42%
Australians with **kidney failure is expected to jump** by 42 per cent by 2030

CKD is a disease of inequality that disproportionately impacts our First Nations Australians.



One in five First Nations Australians have signs of CKD[2]

First Nations Australians are diagnosed with CKD **earlier in life and progress faster** to kidney failure[1]

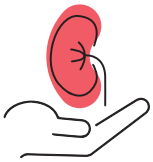
"When I started my kidney journey, I had the support of my mother, brother and sister, who were on dialysis."
Nari

Living with CKD has a profound impact on the health and quality of life of Australians, with those on dialysis reliant on a machine to keep them alive.

Up to **25%** of people with CKD, and up to **50%** of those on dialysis will experience depression[3,4]

Australians **undergoing dialysis spend an average** of 60 hours per month strapped to a machine that cleans their blood[1]

60 hrs



Australians can wait between **5 to 7 years** for a kidney transplant through the donor registry[5]

CKD costs Australia $9.9 billion each year including $2.3 billion to our healthcare system – an unnecessarily cost if we diagnose kidney disease earlier.[1]

$41
to manage each Australian with **early stage of CKD annually**

$62,358
to manage each patient **annually** if they progress to **kidney failure.**

All it takes to detect kidney disease is a trip to your primary care provider, including:

A blood pressure test, because high blood pressure and CKD are related.

A urine test, to check for protein or blood in your urine.

A blood test, to see how well your kidneys are filtering your blood.

Early detection will save lives, reduce pressure on the hospital system and improve productivity.[1]

If we invest in targeted early detection of CKD, we can save:

237,324 **fewer hospitalisations** for cardiovascular disease (CVD)

38,200 **fewer premature deaths** from kidney failure and CKD

123,444 **fewer years** lived **with dialysis**

175,524 **fewer years** lived **with transplant**

164,956 years of healthy life would be gained

$3.3 billion savings in CVD-event related hospitalisation costs

Australia will save $10.2 billion over 20 years or $509 million per year.

"Early diagnosis means people like me can control their lifestyle and can make a difference within society for longer, rather than being reliant on society."
Shailendra

Introducing **kidney disease**

"I lost both my legs to kidney failure. Do whatever you can to avoid it."

Brad Rossiter OAM, transplant recipient

Diagnosed with juvenile onset Type 1 diabetes at age 5, Brad Rossiter didn't give much thought to kidney disease. But in 1997, almost 30 years of 'smooth sailing' with diabetes ended, and Brad was diagnosed with kidney failure at age 38.

"In 2000 I was diagnosed as legally blind and the kidney disease had rapidly escalated," Brad said. "*I was rushed to Canberra Hospital for emergency dialysis.*" He had to quit his job as a butcher, and said the dialysis felt like it was 'taking away a part of him.' In 2002 his left leg was amputated, and he suffered a mild stroke. His right leg was later amputated in 2008.

After almost seven years of dialysis, Brad received a double transplant of a pancreas and kidney from an organ donor – a gift he is thankful for every day. Brad now champions the early detection of kidney disease. "*I'd like to see more education provided for the primary-aged kids. Let's tell them about how they can keep their kidneys healthy, so they don't have to go through what I have.*"

2M
Australians currently **living with CKD.**

1.3M
of those people are **living with early-stage CKD,** many of whom have no symptoms.[1]

710k
Australians currently live with mid-stage CKD with a lack of early diagnosis and management.

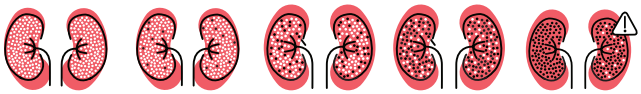
>31k
Australians are **living with kidney failure.**[1]

The number of Australians receiving either dialysis or a kidney transplant **more than doubled** between 2000 and 2020, from 11,700 to 27,7002.

What is chronic kidney disease?

The kidney's main task is to clean your blood and filter waste out through your urine. Inside each kidney there are about one million tiny units called nephrons.[6] Nephrons filter the blood and remove excess water and waste products.[6] The waste products collect in the bladder before leaving the body as urine. Chronic kidney disease, or CKD, is the term used when your kidney's nephrons no longer filter the blood as well as they should.[6] This is often due to kidney damage, such as scarring in the kidney. For CKD to be diagnosed, you will have had the condition for 3 months or more.[6]

Stages of chronic kidney disease



Healthy kidney	Stage 1-2	Stage 3	Stage 4	Stage 5
No kidney damage.* Over 60% of kidney working.	Kidney damage* present. Over 60% of kidney working.	Kidney damage* may be present. 30-59% of kidney working.	Kidney damage* may be present. 15-29% of kidney working.	Kidney failure. Less than 15% kidney working.

*Kidney damage can show as any of the following: protein in the urine (albuminuria), blood in the urine, or abnormal results on tests such as ultrasound or kidney biopsy.

Once a patient reaches the point of kidney failure, they often rely on dialysis and/or a kidney transplant to keep them alive.[1] Haemodialysis is the most common form of dialysis and takes place three to four times a week for four to five hours.[1] Blood is taken through a filter, or dialyser, which cleans the blood of waste products, then returns it to the body.[1]

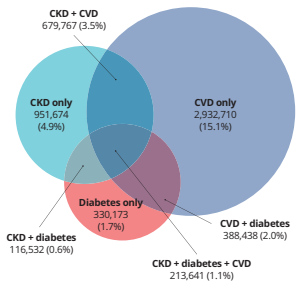
Finally, a patient often requires a kidney transplant – yet this is not a cure. Australians who receive an organ transplant need daily medications for the rest of their lives, which are an additional expense and have a range of side-effects.[1]

Who's at risk?

CKD doesn't discriminate. Australians living with **high blood pressure, diabetes, cardiovascular disease (CVD),** as well as those who **smoke, are obese, have a family history** of kidney failure, have experienced a **previous acute kidney injury** are all at increased risk of developing CKD.[1] People **aged over 60 and First Nations peoples aged over 18 years** are also at increased risk.[1]

The link between CKD and two of Australia's largest chronic diseases **– diabetes and CVD –** exacerbates the impact and severity of this condition, with diabetes accounting for **38 per cent** of all new cases in Australia.[7] Other causes include high blood pressure, inflammation in the kidney and genetic disorders such as polycystic kidney disease.[7]

5.6 million
Australians have at least 1 of these three conditions



Early detection is critical and easy with a **Kidney Health Check**

Blood Pressure Check
High blood pressure can damage your kidneys.

Urine Test
To check for protein in your urine.

Blood Test
To check how well your kidneys are filtering your blood.

The **cost of CKD** on Australians, our health system and our economy

As a psychology student, Luke Macauley put his depression and difficulty concentrating down to his mental health. Then, at age 23, he was diagnosed with kidney failure – and everything made sense. "*There's so many years of serious mental illness and failed classes and a sense of missed opportunities,*" Luke said.

Luke started peritoneal dialysis, which involved inserting a catheter into the peritoneal cavity in the stomach, then transferring dialysis fluid in and out to clean the blood. "*You feel like a cyborg – the surgery is painful, then when you start dialysis the tube is scraping your insides, you're connected to a machine all night,*" he said.

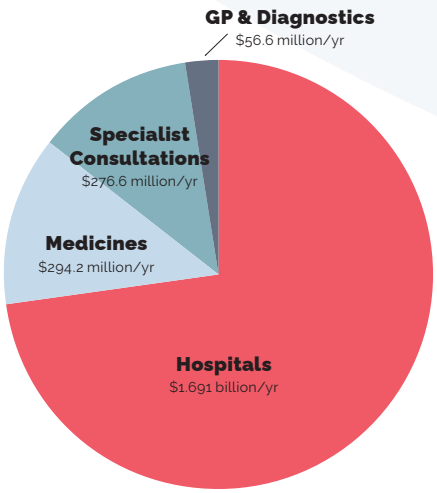
After six months on dialysis, Luke received a donor kidney from his father. He wants to see that other people don't miss the chance to preserve their kidneys before it's too late. "*It doesn't cost nearly as much to the health system for me to take some pills, than to go onto dialysis, and then have a transplant,*" he said.

CKD is a major health issue and an economic issue.

More than 2 million Australians were living with CKD in Australia in 2021, with 1.8 million unaware of their condition – depriving them of the chance to slow, or even stop, the deterioration of their kidneys.[1]

Kidney Health Australia engaged leading consultancy, Deloitte Access Economics, to determine the social and economic cost of CKD in Australia and the return on investment should we make the simple, yet critical, step as a nation towards early detection and treatment of CKD.

The report outlined the significant burden CKD afflicts on the Australian health system – to the tune of **$2.3 billion each year.**[1]



Critically, the vast majority of costs to the health system to treat CKD (58%) are for Australians who are living with kidney failure and require debilitating and expensive dialysis or transplantation to stay alive.[1] We spend $41 to manage each Australian with early stage CKD each year, compared to $62,358 per patient per year if they progress to kidney failure.[1]

The productivity impact of CKD

In a time of low unemployment, CKD has a significant impact on productivity.

Nearly half (46%) – or 950,000 – of the Australians living with CKD **are working age** (18-64), including **16,000** Australians who are currently **living with kidney failure** and needing dialysis or a transplant to stay alive.[1]

The impact of CKD on people's ability to work comes at a huge cost to the nation.

$5.1b per year

estimated in reduced employment, increased absenteeism and presenteeism, and foregone future income due to premature death from CKD.

$2.4b per year

additional financial costs, such as out-of-pocket travel, management and care.

	Each year, the cost to the health system to treat[1]	
CKD Stage 1-2 (Early Stage)	**$41** per person	**$54.2 million** in health costs
CKD Stage 3-4 (Mid Stage)	**$460** per person	**$327.0 million** in health costs
CKD Stage 5 Kidney Failure	**$62,358** per person	**$1,946.9 billion** in health costs

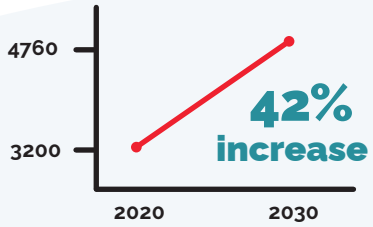
We can **transform the way we manage CKD** through early diagnosis and management

Despite running, playing sport, going to the gym, eating well and not drinking alcohol, Shailendra Tripathi's blood pressure kept increasing. *"I had all the markers of kidney disease, but it wasn't picked up,"* he said. Finally, at age 45, Shailendra was diagnosed with CKD during an annual health check required for his executive role. "*I was panicked – no one in my family had kidney disease, my wife and I have two young kids, I thought I would have to go on to dialysis,*" he said. "*It takes a big toll on your family.*"

With an ageing population and increases in risk factors and chronic disease, Australia is facing a veritable avalanche of kidney disease. The good news is that, if caught early enough, the progression of kidney disease can be slowed or even stopped.

Through lifestyle changes and medication, Shailendra has slowed the progression of his disease and continued working. "*Early diagnosis means people like me can control their lifestyle and can make a difference within society for longer, rather than being reliant on society,*" he said.

The cost of our inaction



With no change to the way we detect CKD, Deloitte Access Economics estimates that by 2030, a further 1,560 Australians (4,760, up from 3,200 in 2020) may experience kidney failure and require dialysis or a transplant – a 42% increase.[1] In fact, if the trends in historical data for kidney failure continue, it is likely that males aged 25-34 and females aged 25-44 will experience the greatest increase in annual kidney failure cases by 2030.[1]

For a system already under strain to deliver dialysis and transplants, this is extremely concerning.

Early diagnosis is simple, yet critical

CKD can be detected with regular Kidney Health Checks, performed annually or every two years for those who are at high risk of CKD. Given that up to 90% of kidney function can be lost without symptoms, Kidney Health Checks play an essential role in early diagnosis.[1]

When caught in the early stages, CKD can be managed through a combination of diet, lifestyle changes and medications.

Early diagnosis and management will save kidneys, save lives, and reduce pressure on our health system

Deloitte Access Economics estimates that investment in early detection will bring an additional 400,000 cases of CKD to the fore while patients can take action that preserve their kidneys.[1] Early diagnosis and targeted support and management would avoid 38,200 premature deaths and 237,324 CVD hospitalisations over the next 20 years.[1]

If Australia invests in early detection of CKD, we stand to gain a net benefit of $10.2 billion over 20 years, or $509 million per year.[1] That is equivalent to a benefit of over $25,000 per person detected, or **approximately $45 for every $1 invested** in early detection.[1]

Kidney Health Australia is proposing a National Kidney Health Support Scheme to:

Raise awareness

of risk factors and the need for targeted kidney health checks with primary healthcare practitioners and Australians at risk.

Develop individualised support plans

for CKD patients, to ensure they receive the best possible care for their condition.

Assist time-poor health professionals

with education and resources to detect and manage CKD.

Our Ask: Fund the National Kidney Health Support Scheme

A $15 million investment over three years to develop a national scheme to support the early diagnosis and treatment of kidney disease, provide information, education and support, and improve health outcomes for Australians living with kidney disease.

We **need** your support

"If you can avoid getting to the point of dialysis, there's nothing you wouldn't do."

At just 12 years old, Amanda's daughter Madeleine received a shocking double diagnosis – she had a rare autoimmune disease that had caused her kidney function to decrease by 90 per cent.

After getting her autoimmune disease into remission, Madeleine began 13 months of dialysis. "*When you're on dialysis it's a day to day proposition, it's completely unpredictable,*" Amanda said. "*The impact on the broader family was quite tough socially, emotionally and financially.*" Amanda donated her kidney to Madeleine in 2018, and is now a Kidney Health Australia Kidney Buddy, providing support for other patients and carers.

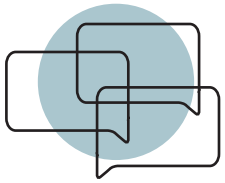
Today, Amanda is speaking up to bring much needed attention to CKD.

If we want to move the needle on CKD and help preserve the kidney health of more Australians, early detection must be our top priority.

We would encourage you to:

SEE

your **primary care provider** to have your own kidney health checked if **you have risk factors** for CKD.



COMMUNICATE

and **raise awareness** within your community of the need to have your **kidney health checked.**

CHAMPION

the **needs of the 2 million Australians** living with kidney disease to **improve** health outcomes.

CKD does not discriminate, and there is no cure. With your support, we can save thousands of Australians from the trauma of kidney failure and reduce the burden on our health system.

The case for early detection is clear.

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