

Prevalence of chronic kidney disease among Auckland's Pacific population alarmingly high

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Chronic kidney disease is "alarmingly" more prevalent among Auckland's Pacific population than previously thought, new University of Otago research reveals.

The study, undertaken by Dr. Malama Tafuna'i as part of her Ph.D. studies, shows that from 7,451 Samoan patients, of those that had been tested for [chronic kidney disease](#) (CKD), 36% had the disease.

Co-author Professor Rob Walker of the Dunedin School of Medicine, says this figure is much higher than previously thought, and reason for concern.

Using data from two of Auckland's largest Pacific Island health care providers serving a population of about 25,000, the study, published in the journal Nephrology, aimed to establish the actual prevalence of CKD among Samoans and other ethnic groups living in Auckland.

From the overall sample of 25,127 patients—9,415 identified as non-Māori or non-Pacific (New Zealand European). The prevalence of CKD in that population was 7%. It jumped to 12% for New Zealand Māori and averaged 18% among the Pacific population.

Globally the prevalence of CKD is estimated to be about 11%. Among those tested for CKD in this study, the rates for Māori increased to 24% and Samoans to 36%, compared with just 16% in New Zealand Europeans.

"The high Samoan CKD prevalence is of concern as are the prevalence of associated risk factors of [diabetes](#), obesity and hypertension. They mirror an increasing trend in [noncommunicable diseases](#) occurring not only amongst Samoan people, but amongst Pacific people in New Zealand and throughout the Pacific region," Professor Walker says.

"It is important to point out that there are many factors affecting these high rates of CKD, it is not just about poor choices regarding health, as some people may think. There is an urgent need for further funding and support for [primary health care](#) to address this epidemic of [kidney](#)

[disease](#) as well as health literacy around kidney disease amongst our community."

CKD is broken down into five stages. Stage one is where there is normal kidney function but some structural underlying abnormality, such as [polycystic kidney disease](#) which has not yet progressed to cause impairment of kidney function or abnormal findings, such as protein or blood, in the urine. Subsequent stages reflect different levels of impaired kidney function with stage five being kidney failure where kidney replacement therapy can be required.

"We have accurate numbers for people commencing kidney replacement therapy in New Zealand. However not all people with impaired kidney function progress to end stage kidney disease requiring dialysis and or transplantation. Many will die from cardiovascular disease and other related complications before this," Professor Walker says.

"Chronic kidney disease is the greatest risk for cardiovascular disease, it is a much higher risk than smoking for instance, so it is really important that we know the actual rates of chronic kidney disease in our community so we can put measures in place.

"It is important to place the ambulance at the top of the cliff to prevent or slow the progression of kidney disease, rather than at the bottom of the cliff when the damage is done and it is too late," he says.

Diabetes has been highlighted as an important focus area for Pacific health, with diabetes prevalence being 20% in 2015, double that of Māori and more than three times that of non-Māori-non-Pacific in New Zealand. This study reinforces that with 20.9% of the Samoan sample having diabetes.

This is the first time such a study had been conducted and Professor

Walker hopes the results will prompt action from the Government.

"This clearly demonstrates the very high rates of CKD, not only for Samoans, but almost all of the other Pacific peoples and importantly high rates of chronic kidney disease in Māori as well.

"What is alarming is that although it is known that these ethnic groups have higher rates of kidney disease, less than 50% of this at-risk population actually had their kidney function tested and only about 25% had had their urine analyzed."

Abnormalities in the urine is often the first sign of kidney disease, long before there is a change in kidney function.

"Testing for albumin (protein) in the urine is an essential part of diabetes management, but even with this knowledge, less than 30% of those known to have diabetes had had their urine checked. The presence of protein in the urine significantly increases the risk of progressive kidney disease as well as increasing the risk for cardiovascular disease," he says.

"This further adds to the inequities of health care that they face.

"There are excellent medications available to reduce the risk of kidney disease, cardiovascular disease and diabetes. It is essential that these interventions are introduced as early as possible to prevent the longer-term complications of [kidney](#) disease, [cardiovascular disease](#) and diabetes."

The Ministry of Health does not recognize CKD as a separate, but important non-communicable disease, yet world-wide it is now the fourth highest cause of mortality, Professor Walker says.

"CKD is just placed with diabetes. Yes, diabetes is the largest cause of

CKD, but CKD is not managed at all well in our community. The ramifications to the individual, their whānau, as well as the community in terms of health dollars is huge. The Ministry of Health completely ignores this fact. So, this needs to be addressed urgently.

"A large amount of CKD can be well controlled and with early intervention significantly slow the progression of CKD and substantially reduce the burden that CKD places on the individual, their whānau as well as the community," he says.

More information: Malama Tafuna'i et al, The prevalence of chronic kidney disease in Samoans living in Auckland, New Zealand, *Nephrology* (2021). DOI: [10.1111/nep.13990](https://doi.org/10.1111/nep.13990)

Provided by University of Otago

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