

Chronic Kidney Dialysis among Albertans with Diabetes

Age-standardized chronic kidney dialysis prevalence rates by First Nations Status, 2006 to 2015

This is the fourth in a series of *First Nations – Health Trends Alberta*¹ dedicated to diabetes-related topics. In a previous edition, we reported rates of lower leg amputations among Albertans with diabetes. End stage kidney failure, which requires dialysis, represents another complication that can occur among people with diabetes. Damage to small blood vessels in the kidneys results in poor filtration of blood, a process that normally removes waste and extra fluid in the form of urine.² This may cause wastes to build up in the blood and increase ankle swelling. Dialysis helps to remove wastes, salt, and excess water from the body.

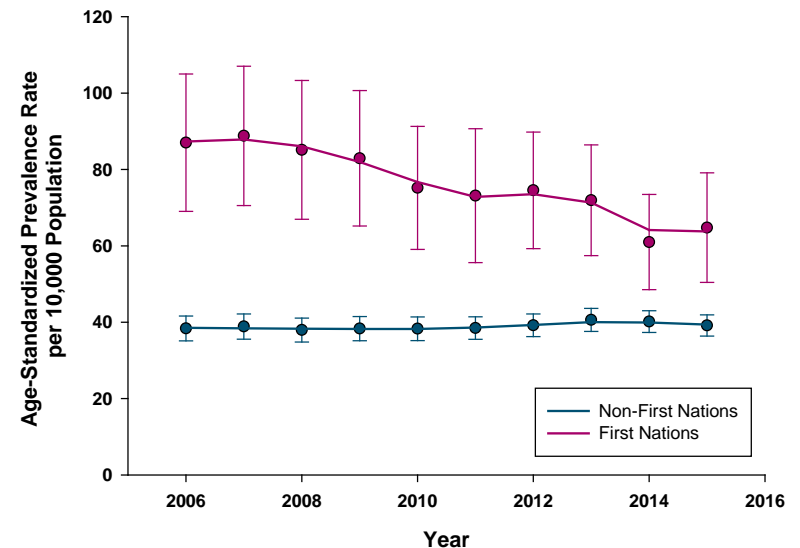
Here, we present age-standardized prevalence rates among Albertans with diabetes (20 years and older) that had chronic kidney dialysis between 2006 and 2015 among First Nations and non-First Nations separately. Chronic kidney dialysis is defined as at least two dialysis events at least 90 days apart.

Among people with diabetes, prevalence rates of chronic kidney dialysis for First Nations are almost two times higher than rates for non-First Nations

In Alberta between 2006 and 2015, there were between 941 and 1,435 people with diabetes aged 20 years or older undertaking chronic kidney dialysis: an average of 112 and 1,059 per year for First Nations and non-First Nations, respectively. Over the 10 year period, the average age-standardized dialysis prevalence rate was approximately two times higher among First Nations than non-First Nations (76 and 39 per 10,000 population, respectively). There was an apparent decrease in the gap

between the rates of dialysis between First Nations and non-First Nations over time: in 2006, dialysis rates were 2.3 higher among First Nations with diabetes compared to their non-First Nations counterparts; in 2016, this relative rate decreased to 1.7.

The average age-standardized rate for chronic dialysis among non-First Nations was higher among males (46 per 10,000 population) than females (32 per 10,000 population). Among First Nations, there was no difference in chronic dialysis rates between males and females (75 and 76 per 10,000 population, respectively). Across healthcare zones over the 10 year period, the greatest disparity of chronic dialysis rates between First Nations and non-First Nations was observed in the Central Health Zone (First Nations: 131 per 10,000 population [average of 22 people with diabetes per year]; non-First Nations: 42 per 10,000 population [average of 138 people with diabetes per year]).



¹ This is the 16th in a series of First Nations-specific Health Trends compiled in collaboration by Alberta Health and the Alberta First Nations Information Governance Centre (AFNIGC). To suggest future topics, please contact the AFNIGC (communications@afnigc.ca; 403-539-5775).

² <https://www.niddk.nih.gov/health-information/kidney-disease/kidneys-how-they-work>, <https://www.kidney.org/atoz/content/diabetes>