



# Native Health in the Bemidji Area

## Chronic Kidney Disease

### What is Chronic Kidney Disease?

Chronic kidney disease (CKD) is a condition where the kidneys are damaged and cannot function properly to filter blood. This causes excess fluid and waste from the blood to remain in the body which can cause other health issues such as stroke or heart disease.<sup>1</sup> There are four stages of CKD. Diagnosis of CKD is done through blood or urine tests. It is important to be tested for it because up to 90% of those with CKD don't know they have it. Progression through the stages of CKD can be slowed through treatment and by controlling risk factors for it. However, if left untreated CKD can lead to kidney failure which requires dialysis or a kidney transplant: this stage is called end-stage renal disease (ESRD).<sup>1</sup>

### Who does it affect?

CKD most commonly affects people aged 65 or older (38% of cases) but has been seen in younger adults as well. Causes of CKD include diabetes, high blood pressure, and kidney inflammation or infection. Risk factors which may increase the chance of getting CKD include smoking, obesity, family history, and being American Indian/Alaska Native, Black, or Asian-American.<sup>1</sup>

### Chronic Kidney Disease in the Bemidji Area

In the Bemidji Area, the prevalence of kidney disease among American Indian/Alaska Natives was 3.6% between 2013 and 2017. This is similar to the prevalence among whites in the Area (Table 1). Regarding risk factors of CKD, American Indian/Alaska Natives are significantly more likely than whites to report diabetes, coronary heart disease or a myocardial infarction, or be a current smoker (Table 1).

The age-adjusted mortality rates for CKD among American Indian/Alaska Natives were significantly higher than for whites in each of the states between 2010 and 2019 (Figure 1, Table 2).

Table 1. Prevalence of Kidney Disease and CKD Risk Factors Among American Indian/Alaska Natives and Whites in Michigan, Minnesota, and Wisconsin Combined, 2013-2017

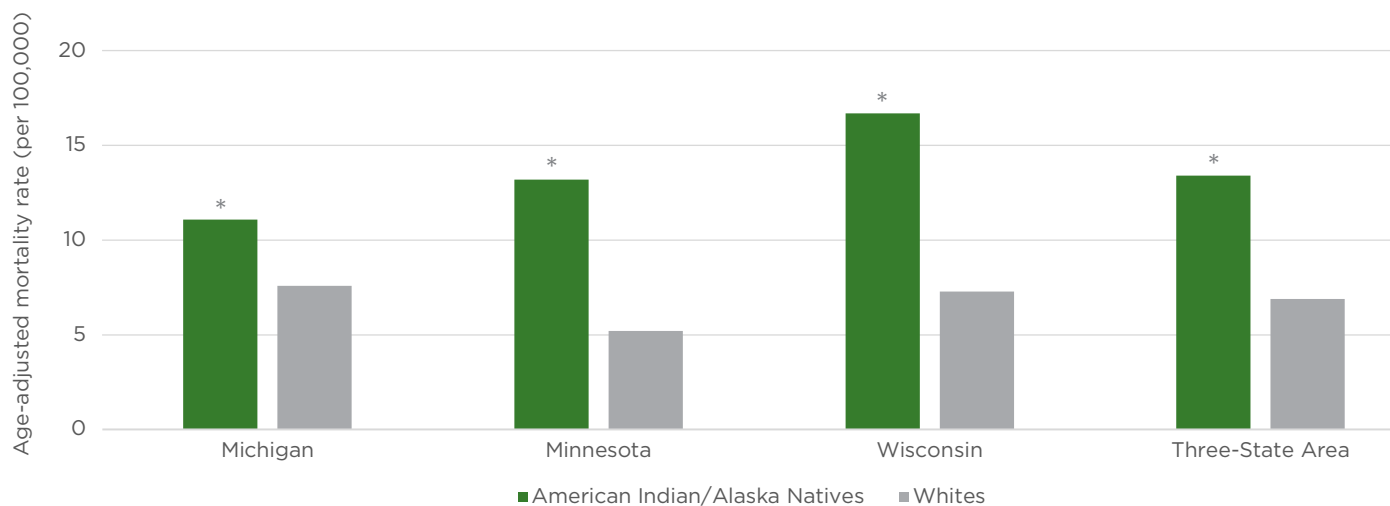
		Percent (Confidence Interval)
Ever told they had kidney disease	American Indian/Alaska Natives	3.6 (2.4-4.7)
	Whites	2.8 (2.6-2.9)
Ever told they had diabetes (excluding during pregnancy)*	American Indian/Alaska Natives	15.4 (13.0-17.7)
	Whites	9.2 (9.0-9.4)
Overweight or obese (BMI≥25)	American Indian/Alaska Natives	69.5 (66.0-73.1)
	Whites	65.8 (65.4-66.1)
Ever told they had coronary heart disease or myocardial infarction*	American Indian/Alaska Natives	9.6 (7.6-11.7)
	Whites	6.9 (6.7-7.1)
Current smoker*	American Indian/Alaska Natives	41.4 (37.8-45.1)
	Whites	17.9 (17.6-18.2)

Source: BRFSS 2013-2017

\*Percent is significantly higher in American Indian/Alaska Natives than whites

The Great Lakes Inter-Tribal Epidemiology Center (GLITEC)'s *Native Health in the Bemidji Area* factsheet series presents data on various health-related topics for communities in the Bemidji Indian Health Service Area (Michigan, Minnesota, Wisconsin, and Chicago). GLITEC welcomes discussion with Bemidji Area communities' health staff in the use of this factsheet to support assessment, planning, and evaluation functions. Please contact us to discuss how we may support your community.

Figure 1. Chronic Kidney Disease or End Stage Renal Disease Age-Adjusted Mortality Rate (per 100,000) Among American Indian/Alaska Natives and Whites in Michigan, Minnesota, Wisconsin, and the Three-State Area, 2010-2019



Source: CDC WONDER

\*Age-adjusted mortality rate is significantly higher in American Indian/Alaska Natives than whites

Table 2. Chronic Kidney Disease or End Stage Renal Disease Age-Adjusted Mortality Rate (per 100,000) Among American Indian/Alaska Natives and Whites in Michigan, Minnesota, Wisconsin, and the Three-State Area, 2010-2019

		Age-adjusted mortality rate (Confidence Interval)
Michigan*	American Indian/Alaska Natives	11.1 (8.5-14.3)
	Whites	7.6 (7.5-7.8)
Minnesota*	American Indian/Alaska Natives	13.2 (9.7-17.7)
	Whites	5.2 (5.0-5.4)
Wisconsin*	American Indian/Alaska Natives	16.7 (12.8-21.4)
	Whites	7.3 (7.1-7.5)
Three-State Area*	American Indian/Alaska Natives	13.4 (11.3-15.4)
	Whites	6.9 (6.8-7.0)

Source: CDC WONDER

\*Age-adjusted mortality rate is significantly higher in American Indian/Alaska Natives than whites

**References:**

1. Chronic Kidney Disease in the United States, 2019. Published March 13, 2019. Accessed January 20, 2021. <https://www.cdc.gov/kidneydisease/publications-resources/2019-national-facts.html>