

## 7.6 Kidney Disease

Chronic kidney disease (CKD) is defined as a condition in which the kidneys are damaged and cannot filter blood as well as possible. This damage can cause wastes to build up in the body and lead to other health problems, including cardiovascular disease (CVD), anemia, and bone disease. Additionally, adults with CKD typically have other chronic diseases, such as diabetes, hypertension, and other cardiovascular diseases.<sup>1</sup>

People with early CKD tend not to feel any symptoms. The only ways to detect CKD are through a blood test to estimate kidney function, and a urine test to assess kidney damage. CKD is usually an irreversible and progressive disease and can lead to kidney failure, also called End Stage Renal Disease (ESRD), over time if it is not treated. Once detected, CKD can be treated through medication and lifestyle changes to slow down the disease progression, and to prevent or delay the onset of kidney failure. However, the only treatment options for kidney failure are dialysis or a kidney transplant.<sup>2</sup>

According to the Centers for Disease Control and Prevention, more than 10% of the population or more than 20 million of the people age 20 years or older in the United States have CKD.<sup>3</sup>

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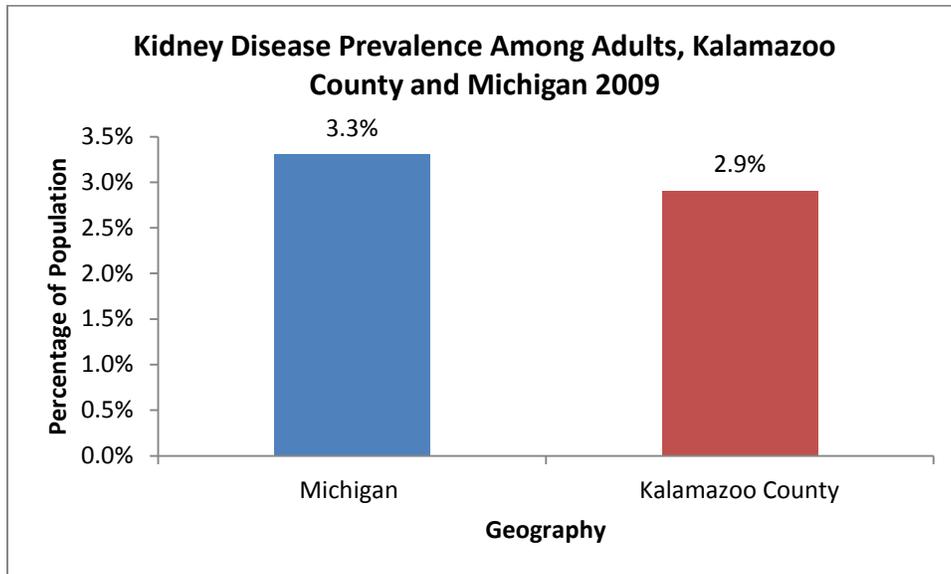
<sup>1</sup> National Chronic Kidney Disease Fact Sheet, 2012, Centers for Disease Control and Prevention, accessed on the web at <http://www.cdc.gov/diabetes/pubs/factsheets/kidney.htm>.

<sup>2</sup> National Chronic Kidney Disease Fact Sheet, 2012, Centers for Disease Control and Prevention, accessed on the web at <http://www.cdc.gov/diabetes/pubs/factsheets/kidney.htm>.

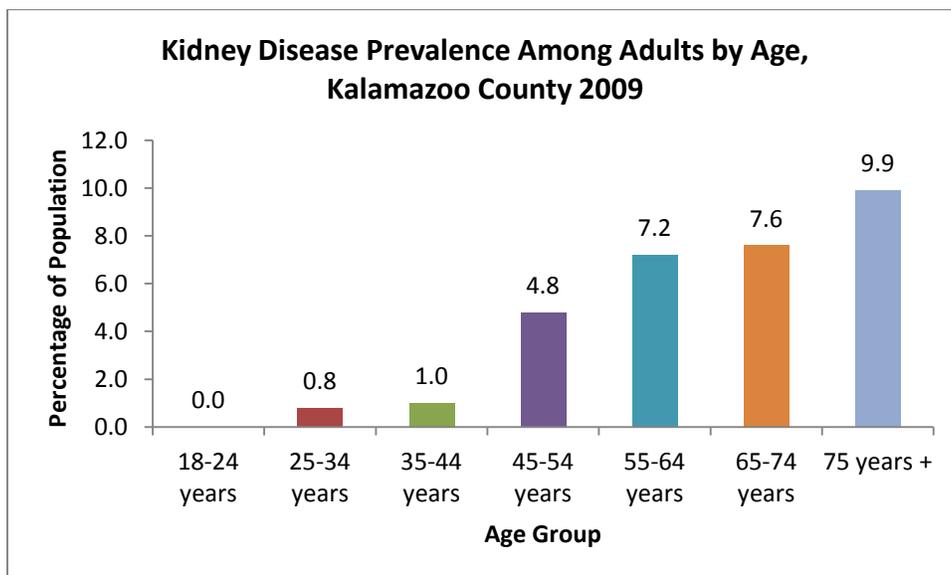
<sup>3</sup> National Chronic Kidney Disease Fact Sheet, 2012, Centers for Disease Control and Prevention, accessed on the web at <http://www.cdc.gov/diabetes/pubs/factsheets/kidney.htm>.

### 7.6.1 Kidney Disease Prevalence

In Kalamazoo County in 2009, 2.9% of adults had been told they have kidney disease. In Michigan in 2009, 3.3% of adults reported that they had been diagnosed with chronic kidney disease (slightly higher than Kalamazoo County). Kidney disease prevalence increased as age increased. As surveyed in 2009, no 18-24 year olds in Kalamazoo County reported they had ever been told they have kidney disease; however almost ten percent of the population 75 years and older had been told they have kidney disease.

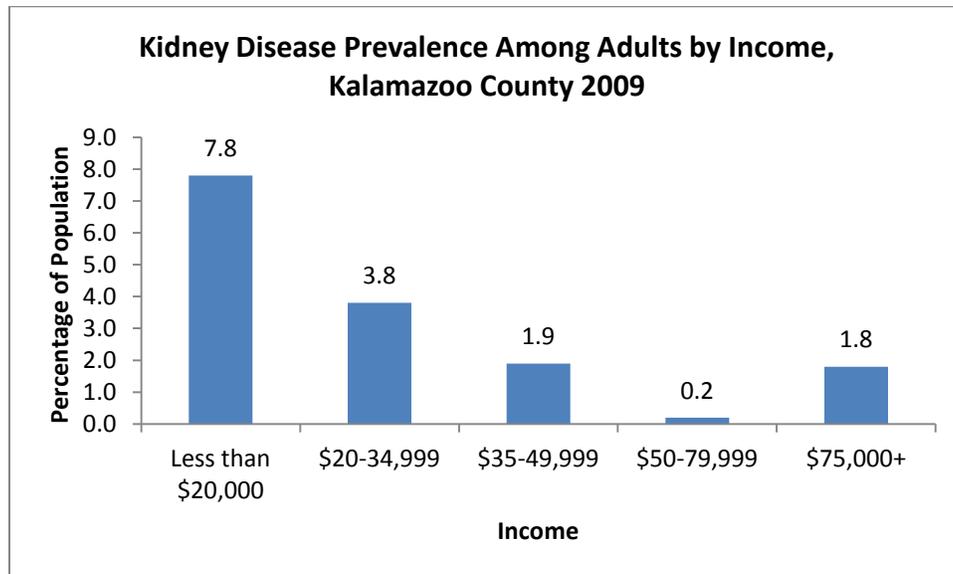


Source: Kalamazoo County and Michigan 2009 Behavioral Risk Factor Survey



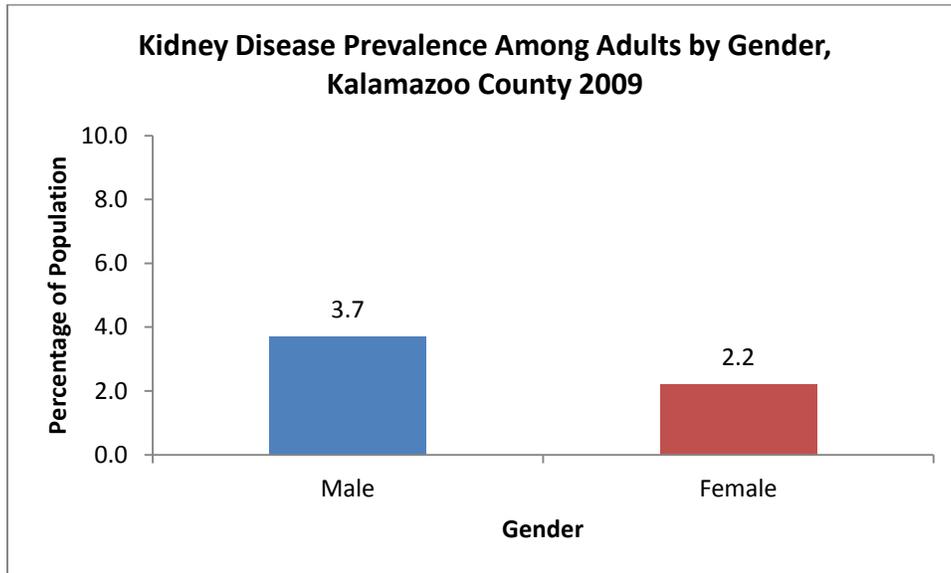
Source: Kalamazoo County 2009 Behavioral Risk Factor Survey

Generally, as income increased, kidney disease prevalence decreased in Kalamazoo County in 2009. Adults earning less than \$20,000 were over four times as likely to have been diagnosed with kidney disease as those earning \$75,000.

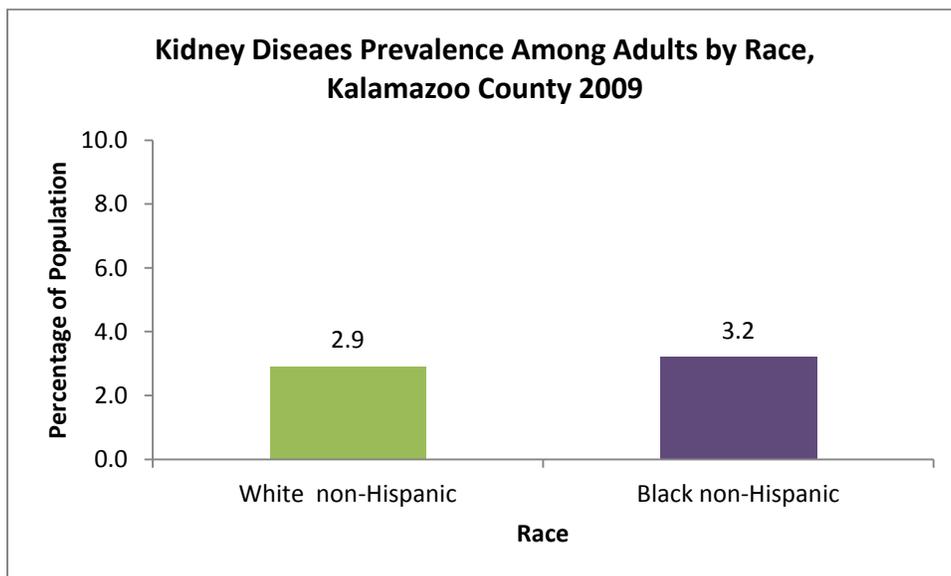


Source: Kalamazoo County 2009 Behavioral Risk Factor Survey

In Kalamazoo County in 2009, males and females reported a similar rate of kidney disease. Estimated rates were also similar between black adults and white adults.



Source: Kalamazoo County 2009 Behavioral Risk Factor Survey



Source: Kalamazoo County 2009 Behavioral Risk Factor Survey

**Kidney Disease Among Adults, Kalamazoo County 2009**

Demographic Characteristics	Ever Told Kidney Disease <sup>a</sup>	
	%	95% C.I.
<b>Total</b>	2.9	(1.8 - 4.7)
<b>Age</b>		
18-24 years	0.0	(0.0 - 0.0)
25-34 years	0.8	(0.1 - 5.3)
35-44 years	1.0	(0.3 - 3.6)
45-54 years	4.8	(1.9 - 11.4)
55-64 years	7.2	(3.1 - 15.6)
65-74 years	7.6	(3.8 - 14.9)
75 years +	9.9	(4.8 - 19.3)
<b>Gender</b>		
Male	3.7	(2.0 - 6.9)
Female	2.2	(1.0 - 4.8)
<b>Race</b>		
White non-Hispanic	2.9	(1.7 - 5.0)
Black non-Hispanic	3.2	(0.9 - 10.2)
<b>Education</b>		
Less than HS	1.2	(0.3 - 4.5)
HS Graduate	3.7	(1.4 - 9.4)
Some college	2.6	(1.0 - 6.7)
College graduate	3.5	(1.8 - 6.7)
<b>Income</b>		
Less than \$20,000	7.8	(3.1 - 18.2)
\$20-34,999	3.8	(1.4 - 10.2)
\$35-49,999	1.9	(0.5 - 6.5)
\$50-79,999	0.2	(0.0 - 1.8)
\$75,000+	1.8	(0.7 - 4.7)
<b>City/Out-County</b>		
City of Kalamazoo	3.5	(1.7 - 7.1)
Rest of County	2.7	(1.2 - 5.7)
<b>Within City of Kalamazoo</b>		
White in City	3.2	(1.2 - 8.2)
Black in City	4.3	(1.3 - 13.7)
<sup>a</sup> The proportion who reported that they were ever told by a health care professional that they had kidney disease, weak kidneys or low kidney function (not including bladder infections or urinary tract infections).		

Source: Kalamazoo County 2009 Behavioral Risk Factor Survey