

Social Determinants Profile



P-02659D (05/2020)

The Wisconsin Department of Health Services' Chronic Disease Prevention Program created this social determinants profile to contextualize cardiovascular disease and diabetes prevention and management efforts in Rock County. This profile highlights indicators of social, economic, political, and cultural forces that promote, enable, and reinforce health inequities:

Life Expectancy
Affordable Housing
ALICE Households
Unemployment
Educational Attainment
Linguistic Isolation
Food Environment
Access to Alcohol
Violent Crime

The ways in which social and economic forces influence cardiovascular and diabetes health outcomes are incredibly complex. This document does not describe these relationships in great detail. For more information on these relationships, explore the *additional literature* cited on page 12.



Social Determinants Profile

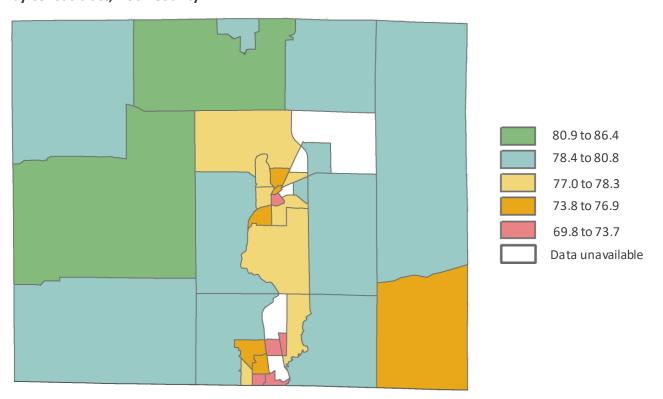


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Life Expectancy

Where you live can influence how long you live. Large gaps in life expectancy exist in Wisconsin, even within a single county. In Rock County, average life expectancy varies from 70 to 86 years across census tracts.

Average life expectancy in years (average number of years a person can expect to live) by census tract, Rock County.¹





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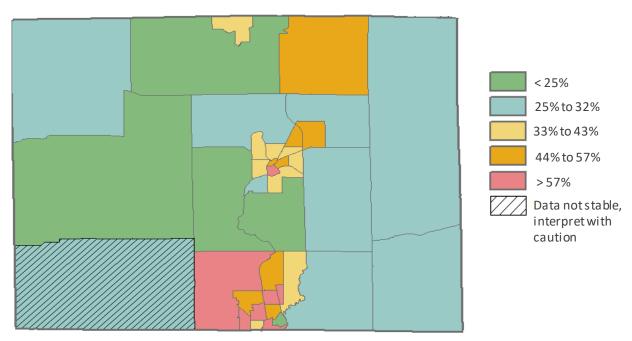


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Affordable Housing

Housing is typically the largest, single expense in a family's budget. As housing consumes larger proportions of household income, families have less to spend on nutrition, health care, transportation, and education. Housing is commonly considered affordable when a family spends less than 30% of its income to rent or buy a residence. Low-income families and minority communities are disproportionately affected by the lack of affordable housing.

Percentages of households paying greater than 30% of income on rent by census tract, Rock County.²





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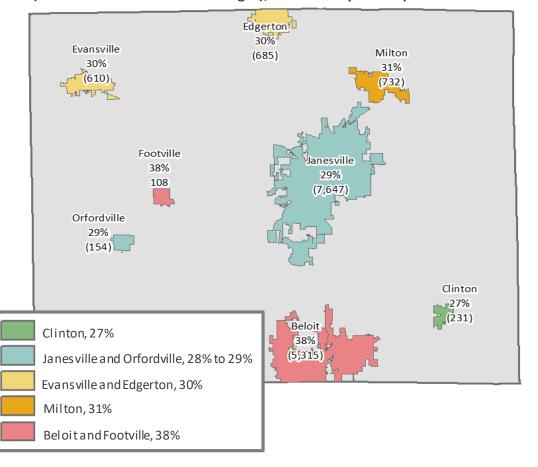
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ALICE Households

Asset-limited, income-constrained, and employed Since 1965, the Federal Poverty Level (FPL) has provided a standard for determining the number of people living in poverty in the United States. However, the FPL's shortcomings are many and well documented. The FPL is not based on the current cost of basic household necessities, and is not adjusted to reflect geographic differences in cost of living. In fact, many agencies use multiples of the FPL to determine eligibility for assistance programs because the measure is too modest (e.g. 200% or 300% FPL).

In light of these limitations, researchers at the United Way developed the ALICE (asset-limited, incomeconstrained, and employed) threshold to identify and assess financial hardship at the county-level. The ALICE threshold represents the minimum income level necessary based on the household survival budget. The household survival budget includes an estimate of the total cost of household essentials: housing, child care, food, transportation, technology, and health care, plus taxes and a 10 percent contingency (see page 4 for a detailed budget).

Percent (and number) of households living below the ALICE threshold (below household survival budget), Rock County municipalities.³





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ALICE Household Survival Budget

The household survival budget gives the cost of housing, child care, food, transportation, and health care at a bare minimum "survival" level. It does not include any savings, cushion for unexpected expenses, or investments.

The household survival budget in Rock County is much higher than the Federal Poverty Level of \$11,880 for a single adult and \$24,300 for a family of four in 2016.

Household survival budget, Rock County, 2016.4

	Single Adult	2 Adults, 1 Infant, 1 Preschooler
Housing	\$508	\$770
Child Care	\$0	\$1,400
Food	\$158	\$525
Transportation	\$349	\$697
Health Care	\$214	\$800
Technology	\$55	\$75
Miscellaneous	\$152	\$495
Taxes	\$239	\$684
Monthly Total	\$1,675	\$5,446
ANNUAL TOTAL	\$20,100	\$65,352
Hourly Wage	\$10.05	\$32.68



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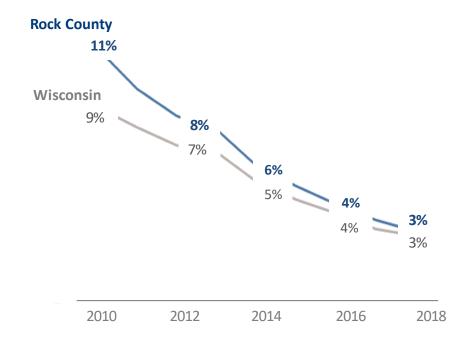


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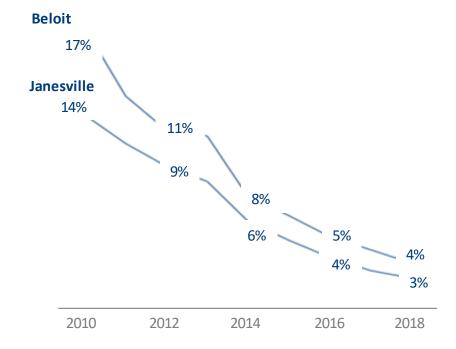
Unemployment

Unemployment is associated with higher rates of self-reported poor health, long-term illness, and increased mortality. County-level studies demonstrate a positive association between higher unemployment and overall mortality and death due to cardiovascular disease and suicide.

Unemployment Rates, Rock County and Wisconsin.⁵



Unemployment Rates, Cities in Rock County with Populations Greater than 25,000.⁵





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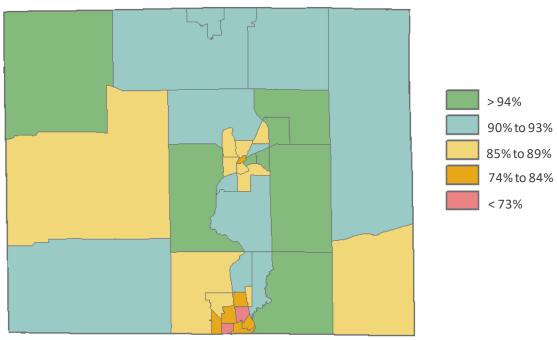


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Educational Attainment

Staying in school to graduate is one of the strongest predictors of health. Education is linked to health in a multitude of ways, from its connections to employment and higher income opportunities, to social and psychological benefits.

Percentage of adults (25+) with a high school diploma by census tract, Rock County.⁶





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Linguistic Isolation

Households that experience linguistic isolation often have both cultural and language barriers to accessing important services from health care and social services, to financial services, voting, and education.

Percentage of households in which no one age 14 and over speaks English only or speaks a language other than English at home by census tract, Rock County.⁷





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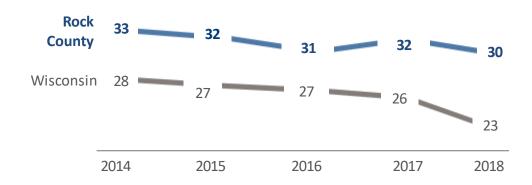


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Violent Crime

Violent crime contributes to and exacerbates chronic diseases by inducing fear and stress. It evokes unhealthy physical responses (e.g., high blood pressure), confines residents to their homes, thereby eliminating the health benefits of physical activity. It prohibits commuting via active transportation to jobs, goods, and services. Violent crime affects everyone's health, and is significantly associated with educational attainment and poverty. Upstream policies and programs that reduce poverty, and increase educational attainment and other social determinants can also impact violent crime.

Annual violent crime* rate per 1,000 persons, Rock County and Wisconsin.8



^{*}Violent crime consists of homicide, rape, robbery, and aggravated assault offenses. In 2017, the definition of rape changed according to FBI requirements. This impacts pre- and post-2017 comparisons of violent offense counts and rates. Please use caution when interpreting trend data.



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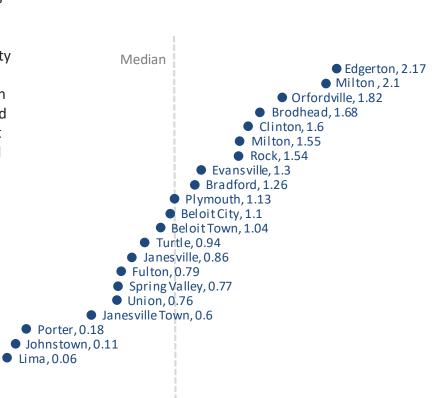
Footville, 3.73

Access to Alcohol

Excessive alcohol consumption is the fourth leading preventable cause of death in the United States. High density and proximity to alcohol outlets in neighborhoods is associated with higher rates of binge drinking and associated harms. Alcohol outlet density is controlled by state and municipal regulations.

For more information on liquor licensing data and, visit the Environmental Public Health Tracking 'Data Details' page at dhs.wisconsin.gov/epht/datadetails.htm

Rate of alcohol licensure per 500 people by municipality, Rock County.9





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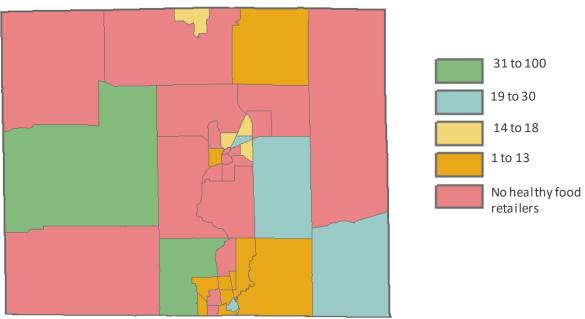


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Food Environment

Modified retail food environment index (mRFEI) is a measure of the retail food environment calculated from the number of healthy food retailers (supermarkets, larger grocery stores, supercenters, and produce stores) and the number of less healthy food retailers (convenience stores, fast food restaurants, and small grocery stores). The mRFEI ranges from 0 (lowest with no healthy food retailers present) to 100 (only healthy food retailers present).

mRFEI for Rock County census tracts. 10





Funding and Sources



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- 1. National Center for Health Statistics. U.S. Small-area Life Expectancy Project (USALEEP). Wisconsin life expectancy table. Accessed April 15, 2020. available online at cdc.gov/nchs/nvss/usaleep.html.
- 2. U.S. Census Bureau. American Community Survey, 2017, 5-Year Estimates, Table B25070. Available online at factfinder.census.gov.
- 3. ALICE Project, United Way of New Jersey. Wisconsin Data File. Available online at unitedforalice.org/wisconsin. Accessed December 2019. ALICE Threshold Households generated using American Community Survey, 2015, 5-Year Estimates. Methodology available at unitedforalice.org/methodology.
- 4. U.S. Department of Housing and Urban Development; U.S. Department of Agriculture; Bureau of Labor Statistics; Internal Revenu e Services; Tax Foundation; and Wisconsin Department of Children and Families, 2016. Table adapted from the ALICE Project, United Way of New Jersey, "Wisconsin: State Level Details." Available online at unitedforalice.org/wisconsin. Accessed December 2019.
- 5. United States Department of Labor, Bureau of Labor Statistics. "Local Area Unemployment Statistics (LAUS)." Accessed September 19, 2019. Available at bls.gov/data/unemployment.
- 6. U.S. Census Bureau, American Community Survey, 2007-2017, 1-Year Estimates, Table B19083. Available online at factfinder.census.gov.
- $7. \quad \text{U.S. Census Bureau. American Community Survey, 2017, 5-Year Estimates, Table S1602. Available online at fact finder.census.gov.}\\$
- 8. Wisconsin Department of Justice. UCR Offense Data, Wisconsin Uniform Crime Reporting Dashboard. Accessed June 2019. Available online at doj.state.wi.us/dles/bjia/ucr-offense-data.
- 9. Wisconsin Department of Health Services. Environmental Public Health Tracking, 2015-2016 alcohol licensure data. Accessed September 2019. Available online at https://dhsgis.wi.gov/DHS/EPHTracker/.
- 10. Centers for Disease Control and Prevention, Division of Nutrition, Physical Activity, and Obesity. mRFEI created for the the *Children's Food Environment State Indicator Report*, 2011 using InfoUSA Business Database, 2009. mRFEI data file accessed June 2019. Available online at cdc.gov/obesity/resources/reports.html.

Additional Literature

- 1. Harper, H. Lynch, J. Smith, G.D. 2011. Social Determinants and the Decline of Cardiovascular Diseases: Understanding the Links. *Annual Review of Public Health*, 32: 39-69. https://doi.org/10.1146/annurev-publhealth-031210-101234.
- 2. Schultz, W.M. *et al.* 2018. Socioeconomic Status and Cardiovascular Outcomes: Challenges and Interventions. *Circulation*, 137 (20): 2166-2178. https://doi.org/10.1161/CIRCULATIONAHA.117.029652.
- 3. Clark, M., Utz, S.W. 2014. Social determinants of type 2 diabetes and health in the United States. World J Diabetes, 5 (3): 296-304. doi: 10.4239/wjd.v5.i3.296.
- 4. Walker, R.J., Williams, J. S., 2016. Impact of Race/Ethnicity and Social Determinants of Health on Diabetes Outcomes. *Am J Med Sci.*, 351 (4): 366-373. doi: 10.1016/j.amjms.2016.01.008.