# **Heat Vulnerability Index Indicators: Menominee Indian Tribe of Wisconsin**

The Heat Vulnerability Index (HVI)\* analysis was created by the Building Resilience Against Climate Effects program within the Wisconsin Department of Health Services. The data displayed in the map is meant to serve as an informational tool to better understand the spatial distribution of human populations most vulnerable to extreme heat-related events.

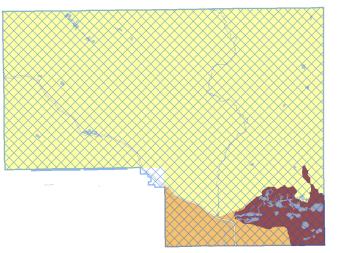
#### **Menominee County** Vulnerability (county based quantiles) by Census Block Group Heat Vulnerability High Moderate Low

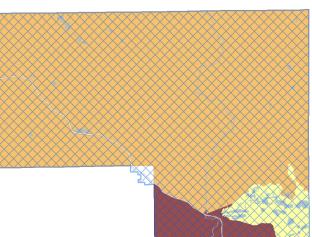
\* The Heat Vulnerability Index is based on the Wisconsin Heat Vulnerability Index\*\* but has a reduced number of health-related indicators. It is representative of the heat vulnerability in Menominee County and is not representative of the vulnerability compared to other counties in Wisconsin.

\*\* The Wisconsin Heat Vulnerability Index is based on multiple indicators associated with risk for heat-related illness and mortality. The index analysis was created as a measure of vulnerability by U.S. Census block groups during an extreme heat event. The measure includes health factors, demographic and household characteristics, natural and built environment factors (e.g., air quality, temperature, land cover) and population density.

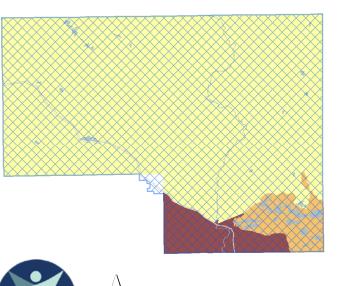
#### **Reference Data** Park/ Water Forest Municipal Tribal Boundary Lands

# **Population Density**

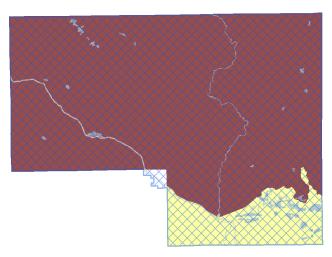




## **Environmental Factors**



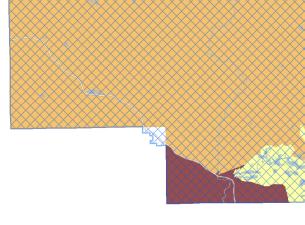
## **Health Factors**



Map created by the Bureau of Information Technology Services in cooperation with the BRACE Program, Bureau of Environmental and Occupational Health, Division of Public Health, Department of Health Services, State of Wisconsin - P-01084A (11/2016)

Maps and related information are provided as a public service for informational purposes only. We make no warranties on the accuracy of content. Use of information from this document is at your own risk

# **Socioeconomic Factors**



#### Heat Vulnerability Index Variables

| Variable                        | Measure   | Year            | Data Source  | Geography                             |
|---------------------------------|---|-----------------|--|---------------------------------------|
| Population Density              |   |                 |  |                                       |
| Population density              | Population per square mile  | 2011            | U.S. Census  | Block group                           |
| Health Factors                  |   |                 |  |                                       |
| Heat stress                     | Percentage of population<br>that visited an emergency<br>department for heat stress | 2002-2012       | WI Department of Health<br>Services (DHS)                                    | Zip Code<br>Tabulation<br>Area (ZCTA) |
|                                 | Demographic ar  | nd Socioecono   | mic Factors  |                                       |
| Poverty                         | Percentage of households in poverty   | 2007-2011       | U.S. Census, American<br>Community Survey (ACS)                              | Block group                           |
| Age 0-4                         | Percentage of population aged 0-4   | 2007-2011       | U.S. Census (ACS)  | Block group                           |
| Age 85+                         | Percentage of population aged 85+   | 2007-2011       | U.S. Census (ACS)  | Block group                           |
| Age 65+ living<br>alone         | Percentage of population<br>65+ living alone  | 2007-2011       | U.S. Census (ACS)  | Block group                           |
| Living alone                    | Percentage of population living alone   | 2007-2011       | U.S. Census (ACS)  | Block group                           |
| Non-white                       | Percentage of non-white population  | 2007-2011       | U.S. Census (ACS)  | Block group                           |
| Less than high school education | Percentage of population<br>with less than high school<br>education                 | 2007-2011       | U.S. Census (ACS)  | Block group                           |
|                                 | Natural an  | d Built Enviror | nment  |                                       |
| Air surface<br>temperature      | July 6, 2012, air<br>temperature  | 2012            | Parameter-elevation<br>Regressions on<br>Independent Slopes<br>Model (PRISM) | Raster, 4 k<br>resolution             |
| Air quality, PM <sub>2.5</sub>  | July 2012, average PM <sub>2.5</sub> concentration (ug/m <sup>3</sup> )             | 2012            | Environmental Protection<br>Agency (EPA) Air Quality<br>Index (AQI)          | Lat/long<br>(extrapolated)            |
| Air quality, ozone              | July 2012, maximum<br>recorded ozone level (ppb)                                    | 2012            | EPA AQI  | Lat/long<br>(extrapolated)            |
| Households<br>without vehicle   | Percentage of households without a vehicle  | 2007-2011       | U.S. Census (ACS)  | Block group                           |
| Developed land cover            | Medium and high intensity classification  | 2006            | National Land Cover<br>Database (NLCD)                                       | Raster, 30 m resolution               |
| Nursing home                    | Nursing home bed count  | 2013            | Division of Long Term<br>Care  | Lat/long                              |