

BALTIMORE COUNTY COMMUNITY HEALTH NEEDS ASSESSMENT

2023-2024

CHAPTER 1 | METHODOLOGY

Study Design

The process used to assess Baltimore County's community needs, challenges, and opportunities included multiple steps. Both new and existing data were used throughout the study to paint a more complete picture of Baltimore County's health needs. While the CHNA Steering Committee largely viewed the new and existing data equally, there were situations where one provided clearer evidence of community health need than the other. In these instances, the health needs identified were discussed based on the most appropriate data gathered. Data analysis, community feedback review, and stakeholder engagement were all used to identify key areas of need.

Specifically, the following data types were collected and analyzed:

New (Primary) Data

Public engagement and feedback were received through online community member and key community leader surveys, along with community focus groups and significant input and direction from the CHNA Steering Committee. The Steering Committee worked together to develop the survey questions for the two web-based surveys. Community members were asked to identify the most significant health and social needs in their community, as well as asked questions about their experiences seeking or receiving medical care. Key leaders were asked to answer similar questions about the community they serve. Focus group participants were also asked a standard set of questions about health and social needs, in order to identify trends across various groups and to highlight areas of concern for specific populations. In total, the Steering Committee was able to gather input from over 2,200 Baltimore County residents and other stakeholders. This included web survey responses from 2,034 community members and 115 key leaders, as well as 13 focus groups that included over 90 community members and other people who live, work or receive healthcare in Baltimore County.

Existing (Secondary) Data

Key sources for existing data on Baltimore County included information provided by the Steering Committee and a variety of public data sources related to demographics, social and economic determinants of health, environmental health, health status and disease trends, mental/ behavioral health trends, and individual health behaviors. Key information sources leveraged during this process included:

- *County Health Rankings,* developed in partnership by Robert Wood Johnson Foundation and University of Wisconsin Population Health Institute
- Maryland Department of Health's State Health Improvement Process (MD SHIP) and Division of Vital Records
- The Maryland Youth Risk Behavior Survey/Youth Tobacco Survey (YRBS/YTS)

- *The Opportunity Atlas*, developed in partnership by the U.S. Census Bureau, Harvard University, and Brown University
- *The National Equity Atlas,* developed by PolicyLink and the University of Southern California (USC) Equity Research Institute
- Food Access Research Atlas, published by the U.S. Food and Drug Administration
- *Minority Health Social Vulnerability Index,* published by U.S. Department of Health and Human Services Office of Minority Health
- American Community Survey, as collected and published by the U.S. Census Bureau
- Data provided by CHNA Steering Committee members and other affiliated organizations, including CHNA reports from BCDH, Northwest, Sheppard Pratt, GBMC, UM SJMC, and MFSMC.

Comparisons

To understand the relevance of existing data collected throughout the process, each measure must be compared to a benchmark, goal, or similar geographic area. In other words, without being able to compare Baltimore County to an outside measure, it would be impossible to determine how the county is performing. For this process, each data measure was compared to outside data as available, including the following:

- *County Health Rankings* Top Performers: This is a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute that ranks counties across the nation by various health factors.
- City of Baltimore and State of Maryland: The Steering Committee determined that comparisons with the City of Baltimore and the state of Maryland were appropriate. While certain differences exist between the county and the city, the close proximity and overlap between resources creates a meaningful opportunity for comparison.

CHAPTER 2 | COUNTY PROFILE

Geography

Baltimore County occupies 612 square miles of land — plus an additional 28 square miles of water — in the geographic center of Maryland. Baltimore County surrounds most of Baltimore City, however, the city was separated from the county in 1851. Today, Baltimore City is an independent city on par with county jurisdictions.



Figure 3.1: Baltimore County Map

Population

Population figures discussed throughout this chapter were obtained from Esri, a leading GIS provider that utilizes U.S. Census data projected forward using proprietary methodologies.

With a population of roughly 860,000 people, the county is the largest jurisdiction in the Central Maryland Metropolitan Area.

Table 3.1: 2023 Total Population						
	Baltimore County	Baltimore City	Maryland	United States		
Population	859,710	573,794	6,259,408	337,470,185		
Source: Esri 2023						

Age and Sex Distribution

Data on age and sex helps health providers understand who lives in the community and informs planning for needed health services. The age distribution of Baltimore County skews slightly older than that of Baltimore City, Maryland, and the U.S. While people of all ages can benefit from preventive services and health education, older people may need higher acuity healthcare and specialized services like cancer care or chronic disease management.

Table 3.2: 2023 Age Distribution						
	Baltimore County	Baltimore City	Maryland	United States		
Percentage below 15	16.4%	16.8%	17.6%	18.0%		
Percentage between 15 and 44	38.9%	43.7%	39.2%	39.6%		
Percentage between 45 and 64	24.9%	23.0%	25.7%	24.6%		
Percentage 65 and older	19.7%	16.5%	17.5%	17.8%		

Source: Esri 2023

The populations of Baltimore County and Baltimore City skew more heavily female compared to the state of Maryland, and the U.S.

Table 3.3 2023 Sex Distribution						
	Baltimore County	Baltimore City	Maryland	United States		
Female	52.2%	52.8%	51.3%	50.6%		
Male	47.8%	47.2%	48.7%	49.4%		

Source: Esri 2023

Race and Ethnicity

Data on race and ethnicity help us understand the need for healthcare services as well as cultural factors that can impact how care is delivered. A greater proportion of residents in Baltimore County identify as Black or African American compared to the U.S. overall. However, the proportion of county residents that identify as Black or African American is roughly half the proportion of the city.

Table 3.4: 2023 Racial Distribution								
	Baltimore County		Baltimore City		Maryland		United States	
	Count	Pct. of Total	Count	Pct. of Total	Count Pct. of Total		Count	Pct. of Total
Non-Hispanic White	431,552	50.2%	146,924	25.6%	2,867,623	45.8%	191,314,266	56.7%
Non-Hispanic Black	260,766	30.3%	332,377	57.9%	1,834,049	29.3%	40,898,542	12.1%
Asian	57,506	6.7%	21,210	3.7%	439,514	7.0%	20,811,620	6.2%
AIAN	1,921	0.2%	1,270	0.2%	11,977	0.2%	2,284,715	0.7%
NHPI	255	0.0%	152	0.0%	2,635	0.0%	643,202	0.2%

Source: Esri 2023

By ethnicity, less than 10% of Baltimore County's population is Hispanic.⁵ Baltimore County has a smaller Hispanic population than Baltimore City, Maryland, and the U.S. overall.

Table 3.5: 2023 Ethnic Distribution								
	Baltimore County Baltimore City		Maryland		United States			
	Count	Pct. of Total	Count	Pct. of Total	Count	Pct. of Total	Count	Pct. of Total
Non-Hispanic	793,133	92.3%	525,925	91.7%	5,470,733	87.4%	271,934,049	80.6%
Hispanic	66,577	7.7%	47,869	8.3%	788,675	12.6%	65,536,136	19.4%

Source: Esri 2023

The proportion of foreign-born individuals residing in Baltimore County is higher than that of Baltimore City but lower than that of the state of Maryland. This measure is also slightly lower than the U.S. overall.

Table 3.6: 2022 Foreign Born Population						
	Baltimore County	Baltimore City	Maryland	United States		
Foreign Born	13.0%	9.7%	16.7%	13.9%		

Source: U.S. Census Bureau (2022), American Community Survey (2018-2022)

The diversity of Baltimore County and Baltimore City is reflected in the languages that residents speak at home. According to the most recent American Community Survey, approximately 15% of Baltimore County and 10% of Baltimore City residents speak a language other than English at home, compared to around 20% of Maryland and U.S. residents. Less than 5% of county or city residents speak Spanish at home. Spanish is more commonly spoken at home in the state of Maryland and the U.S. overall.

⁵ Race and ethnicity (Hispanic origin) are two separate concepts, according to federal guidelines. People who are Hispanic may be of any race, and people in each race group may be either Hispanic or Not Hispanic. Source: <u>U.S.</u> <u>Census Bureau Guidance on the Presentation and Comparison of Race and Hispanic Origin Data</u>.

Table 3.7: 2022 Language Spoken at Home						
	Baltimore County	Baltimore City	Maryland	United States		
English Only	85.8%	89.0%	79.3%	78.0%		
Spanish	4.0%	4.7%	8.9%	13.3%		
Indo-European Languages	4.5%	2.5%	4.7%	3.8%		
Asian and Pacific Islander Languages	2.7%	1.9%	3.9%	3.6%		
Other Languages	3.0%	1.8%	3.2%	1.2%		

Source: American Community Survey 2022 1-Year Estimates

Economic Indicators

In addition to demographic data, socioeconomic factors in the community such as income, poverty, and food scarcity play a significant role in identifying health-related needs. The median household income in Baltimore County is higher than in Baltimore City and the U.S. overall, but lower than Maryland.

Table 3.8: 2023 Median Household Income					
	Baltimore County	Baltimore City	Maryland	United States	
Income	\$82,607	\$55,224	\$93,432	\$72,603	

Source: Esri 2023

In 2021, approximately 10% of Baltimore County households were below the federal poverty level (FPL). The share of households below the FPL was higher in Baltimore City and the U.S. overall but equal to the state of Maryland. Poverty has a significant impact on health. Across the lifespan, people who live in impoverished communities have a higher risk of poor health outcomes, including mental illness, chronic diseases, higher mortality and lower life expectancy. Poverty is a concern across the lifespan; children who live in poverty are at risk for developmental delays, toxic stress and poor nutrition, and are likely to live in poverty as adults as well. Unmet social needs, including having low or no income, can also limit people's ability to access healthcare when they need it, or to provide for basic necessities needed to live healthy lives, such as safe housing or healthy food.⁶

United States
12.4%

Source: Esri 2023

⁶ Source: Healthy People 2030 (2023). Poverty. Accessed March 7th, 2024 via: <u>https://health.gov/healthypeople/priority-areas/social-determinants-health/literature-summaries/poverty</u>

Similar to the percentage of households below the FPL, approximately 10% of Baltimore County households received Food Stamps/SNAP⁷ in 2021. This percentage was comparable with the state of Maryland and the United States but significantly less than Baltimore City.

Table 3.10: 2021 Households Receiving Food Stamps/SNAP						
	Baltimore County	Baltimore City	Maryland	United States		
Number of Households Receiving Food Stamps/SNAP	34,031	56,208	238,288	14,105,231		
Total Number of Households	326,932	244,893	2,294,270	124,010,992		
Percentage of Households receiving Food Stamps/SNAP	10.4%	23.0%	10.4%	11.4%		
Source: Esri 2023						

Baltimore County is relatively well-educated, with 67.1% of residents having received some education beyond high school. Baltimore County's proportion of the population with a bachelor's degree was slightly higher than that of Baltimore City, Maryland, and the U.S.

Table 3.11: 2023 Educational Attainment						
	Baltimore County	Baltimore City	Maryland	United States		
Less than 9 th Grade	2.6%	3.5%	3.2%	4.1%		
Some High School/No Diploma	4.8%	8.8%	4.9%	5.5%		
High School Diploma	22.1%	23.9%	21.4%	22.9%		
GED/Alternative Credential	3.3%	5.2%	3.1%	4.1%		
Some College/No Diploma	17.1%	16.9%	16.4%	17.7%		
Associate's Degree	7.8%	5.7%	7.5%	9.5%		
Bachelor's Degree	23.8%	18.3%	23.3%	22.3%		
Graduate/ Professional Degree	18.4%	17.7%	20.2%	13.9%		

Source: Esri 2023

The overall unemployment rate in Baltimore County was higher than Maryland, and the U.S. overall in 2023, but lower than Baltimore City. The highest rate of unemployment in the county was among people ages 25 to 54.

⁷ The Supplemental Nutrition Assistance Program (SNAP) provides nutrition assistance to eligible, low-income individuals and households. It is the largest Federal nutrition assistance program. Source: <u>USDA Supplemental</u> <u>Assistance Program fact sheet</u>.

Table 3.12: 2023 Unemployment						
	Baltimore County	Baltimore City	Maryland	United States		
Percentage unemployed ages 16 to 24	1.3%	1.7%	1.2%	1.3%		
Percentage unemployed ages 25 to 54	1.9%	2.8%	1.9%	2.2%		
Percentage unemployed ages 55 to 64	0.6%	0.7%	0.5%	0.6%		
Percentage unemployed ages 65 or more	0.3%	0.5%	0.2%	0.2%		
Total unemployment	4.1%	5.7%	3.8%	3.7%		
Percentage unemployed ages 65 or more Total unemployment	0.3%	0.5% 5.7%	0.2% 3.8%	0.2% 3.7%		

Source: Esri 2023

In 2023, the age group in both Baltimore County and Baltimore City least likely to have health insurance was adults ages 35 to 64. Baltimore County has proportions of uninsured individuals across almost every age group lower than the U.S. as a whole, but similar to both Baltimore City and Maryland.

Table 3.13: 2023 Health Insurance Status					
Baltimore County Baltimore City Maryland United S					
Percentage uninsured ages 18 or below	0.9%	0.8%	0.9%	1.3%	
Percentage uninsured ages 19 to 34	1.9%	2.2%	2.1%	3.2%	
Percentage uninsured ages 35 to 64	2.3%	2.9%	2.8%	4.2%	
Percentage uninsured ages 65 or more	0.1%	0.1%	0.1%	0.1%	

Source: Esri 2023

Social Determinants of Health

In addition to the considerations noted above, there are many other factors that can positively or negatively influence a person's health. The Steering Committee recognizes this and believes that, to portray a complete picture of the county's health status, it first must address the factors that impact community health. The Centers for Disease Control and Prevention (CDC) defines social determinants of health (SDoH) as the conditions in the environments where people are born, live, learn, work, play, worship and age that affect a wide range of health, functioning and quality of life outcomes and risks. According to the CDC's "Social Determinants of Health" from its Healthy People 2030 public health priorities initiative, factors contributing to an individual's health status can include the following: healthcare access and quality, neighborhood and built environment, social and community context, economic stability, and education access and quality.





As seen in Figure 3.2, many of the factors that contribute to health are hard to control or societal in nature. As such, health and healthcare organizations need to consider many underlying factors that may impact an individual's health and not simply their current health conditions.

It is widely acknowledged that people with lower income, social status and levels of education find it harder to access healthcare services compared to people in the community with more resources. Being unable to access healthcare services is a factor that contributes to poor health status. Further, people in communities with fewer resources may also experience high levels of stress, which also contributes to worse health outcomes, particularly related to mental or behavioral health.

The CHNA Steering Committee collected new data via focus groups and surveys to ensure that residents and key community health leaders could provide input regarding the needs of their specific communities. An analysis of the racial and geographic disparities that emerged in the information obtained and analyzed during this process is detailed below.

Disparities

Recognizing the diversity of Baltimore County, as discussed above, the Steering Committee evaluated factors that may contribute to health disparities in its community. These included racial equity; racial segregation; financial barriers; nutrition; social, behavioral, and economic factors that influence health; and English language proficiency.

The Racial Equity Index measures disparities between racial groups based on inclusion and prosperity. As seen in Figure 3.3, Baltimore County performs higher than Baltimore City, Maryland and the U.S. Higher scores are better and indicate smaller racial gaps. In this graphic and the following, the blue line indicates geographies that perform best in that indicator.



Source: National Equity Atlas 2020

Residential segregation is measured by the index of dissimilarity, a demographic measure ranging from 0 to 100 that represents how evenly two demographic groups are distributed across a county's census tracts. Lower scores represent a higher level of integration. Baltimore County has a lower level of segregation between Black and white residents than Baltimore City, Maryland and the U.S. overall, as seen in Figure 3.4.



Figure 3.4: Residential Segregation – Black/White

Source: Robert Wood Johnson County Health Rankings 2023

Income inequality is measured as the ratio of household income at the 80th percentile to household income at the 20th percentile. Communities with greater income inequality may have worse outcomes on a variety of metrics, including mortality, poor health, sense of community, and social support. As seen in Figure 3.5, Baltimore County's income inequality ratio is much lower than Baltimore City's, and lower than the state of Maryland and the U.S.



Source: Robert Wood Johnson County Health Rankings 2023

People with limited English proficiency (LEP) may face challenges accessing care and resources that fluent English speakers do not. Language barriers may make it hard to access transportation, medical, and social services as well as limit opportunities for education and employment. Importantly, LEP community members may not understand critical public health and safety notifications, such as safety-focused communications during the COVID-19 pandemic. In 2022, just 2% of Baltimore County residents reported speaking English less than "very well." This is comparable to the rate of Baltimore City, but lower than the rates in Maryland and the U.S., as seen in Figure 3.6.



Figure 3.6: Population Not Fluent In English

Source: American Community Survey 5-year estimates (2017-2022)

Social Vulnerability Index

One resource that can help show variation and disparities between geographic areas is the Social Vulnerability Index (SVI), which was developed by the CDC and the Agency for Toxic Substances and Disease Registry (ATSDR). Social vulnerability refers to negative effects communities may experience due to external stresses that impact human health, like natural or human-caused disasters, or disease outbreaks. Socially vulnerable populations are at especially high risk during public health emergencies.

The SVI uses 16 U.S. Census variables to help local officials identify communities that may need support before, during, or after a public health emergency.⁸ Communities with a higher SVI score are generally at a higher risk for poor health outcomes. Instead of relying on public health data alone, the SVI accounts for underlying economic and structural conditions that affect overall health, including SDoH. SVI scores are calculated at the census tract level and based on U.S. Census variables across four related themes: socioeconomic status, household characteristics, racial and ethnic minority status, and housing type/transportation. Figure 3.7 outlines the variables used to calculate SVI scores.



Figure 3.7: Social Vulnerability Index Variables

⁸ Tsai, et al (2022). CDC/ATSDR Social Vulnerability Index (SVI). Retrieved from <u>https://www.atsdr.cdc.gov/placeandhealth/svi/index.html</u>.

The United States SVI by county is shown in Figure 3.8 below. As shown, a lot of variation exists across the country, and even within individual states.



Figure 3.8: Social Vulnerability Index by County, 2020

The 2020 SVI scores for Baltimore County and Baltimore City are shown in Figure 3.9 below. Possible scores range from 0 (lowest vulnerability) to 1 (highest vulnerability), and these scores show a relative comparison with other counties and census tracts in Maryland. Given this, the vulnerability of Baltimore County overall is fairly high compared to the state, with an SVI score of 0.7. However, specific regions within the county, particularly those closest to the city border, demonstrate higher vulnerability.



Figure 3.9: Baltimore County Social Vulnerability Index, 2020

Source: CDC/ATSDR Social Vulnerability Index (SVI) 2020 SVI by County; accessed at <u>https://www.atsdr.cdc.gov/placeandhealth/svi/interactive_map.html</u>.

Health Outcome and Health Factor Rankings

The Steering Committee also reviewed and analyzed data from the Robert Wood Johnson Foundation and the University of Wisconsin County Health Rankings for the year 2023. Out of 24 reported counties in Maryland for health outcomes, Baltimore County ranks 15th overall, as seen in Figure 3.10 below. This includes ranking 13th among 24 reported counties on Length of Life, and 16th overall for Quality of Life. These categories are discussed further in Appendices 2 through 4.

Figure 3.10



2023 Health Outcomes - Maryland

Lastly, out of 24 reported counties in Maryland for health factors, Baltimore County ranks 10th overall as seen in Figure 3.11.



Source: Robert Wood Johnson Foundation, 2023 County Health Rankings.

Source: Robert Wood Johnson Foundation, 2023 County Health Rankings.

Figure 3.12 shows that Baltimore County ranks 8th among 24 reported Maryland counties for Clinical Care, 9th for Health Behaviors, and 13th for Social & Economic factors. Baltimore County also ranked 18th for Physical Environment. These categories are also discussed further in Appendices 2 through 4.



Figure 3.12: Baltimore County Health Factors and Outcomes

Source: Robert Wood Johnson Foundation, 2023 County Health Rankings.

APPENDIX 3 | SECONDARY DATA METHODOLOGY AND SOURCES

Many individual secondary data measures were analyzed as part of the CHNA process. These data provide detailed insight into the health status and health-related behavior of residents in the county. These secondary data are based on statistics of actual occurrences, such as the incidence of certain diseases, as well as statistics related to SDoH.

Methodology

All individual secondary data measures were grouped into six categories and 20 corresponding focus areas based on "common themes." In order to draw conclusions about the secondary data for Baltimore County, its performance on each data measure was compared to targets/benchmarks. If Baltimore County's performance was more than five percent worse than the comparative benchmark, it was concluded that improvements could be needed to better the health of the community. Conversely, if an area performed more than five percent better than the benchmark, it was concluded that while a need is still present, the significance of that need relative to others is likely less acute. The most recently available data were compared to these targets/benchmarks in the following order (as applicable):

- For all available data sources, state and national averages were compared.
- Peer County for Comparison: For the purposes of this analysis, Baltimore City has been identified as a peer county for comparison, due to the two counties' relatively similar population density and demographic makeup.

The following methodology was used to assign a priority level to each individual secondary data measure:

- If the data were more than 5 percent worse = High need
- If the data were within or equal to 5 percent (better or worse) = Medium need
- If the data were more than 5 percent better = Low need

These measures are noted with an asterisk.

Additionally, data measures were also viewed with regard to performance over time and whether the measure has improved or worsened compared to the prior CHNA timeframe.

Data Sources

The following tables are organized by each of the twenty focus areas and contain information related to the secondary data measures analyzed including a description of each measure, the data source, and most recent data time periods.

Measure	Description	Data Source	Most Recent Data Year(s)
Uninsured (percent of population < 65 without health insurance)	Percentage of the population under age 65 without health insurance coverage.	ESRI Business Analyst. Data accessed September 2023.	2021
Primary Care (ratio of population to primary care physicians - population per one provider)	Ratio of the population to primary care physicians. Primary care physicians include practicing non- federal physicians (M.D.'s and D.O.'s) under age 75 specializing in general practice medicine, family medicine, internal medicine, and pediatrics. The ratio represents the number of individuals served by one physician in a county, if the population was equally distributed across physicians. Prior to the 2013 County Health Rankings, primary care physicians were defined only as M.D.s. In 2013, D.O.s were incorporated into the definition of primary care physicians and obstetrics/gynecology was removed as a primary care physician type.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2020
Dentists (ratio of population to dentists - population per one dentist)	Ratio of the population to dentists. The ratio represents the population served by one dentist if the entire population of a county was distributed equally across all practicing dentists.	ESRI Business Analyst. Data accessed September 2023.	2021
Other primary care providers (ratio of population to other primary care providers - population per one provider)	Ratio of the county population to the number of other primary care providers. Other primary care providers include nurse practitioners (NP), physician assistants (PA), and clinical nurse specialists. Please note that the methods for calculating this measure changed in the 2017 Rankings.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2022
Children receiving dental care (ages 0 to 20)	of children (aged 0-20 years) enrolled in Medicaid (320+ days) who	Health, State Health	2021

Table A3.1: Access to Care

Measure	Description	Data Source	Most Recent Data Year(s)
	received at least one dental visit during the past year.	(SHIP). Data accessed September 2023.	
ED visit rate due to addiction-related conditions	This indicator shows the rate of emergency department visits related to substance use disorders (per 100,000 population).	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2017
ED visit rate due to asthma	This indicator shows the rate of emergency department visits due to asthma (per 10,000 population).	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2017
ED visit rate due to diabetes	This indicator shows the emergency department visit rate due to diabetes (per 100,000 population).	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2017
ED visit rate due to hypertension	This indicator shows the rate of emergency department visits due to hypertension (per 100,000 population).	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2017
ED visit rate due to dental problems	This indicator shows the emergency department visit rate related to dental problems (per 100,000 population).	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2017
Persons with a usual primary care provider	This indicator shows the percentage of people who reported that they had one person they think of as their personal doctor or healthcare provider.	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2021
Uninsured ED visits	This indicator shows the percentage of persons without health (medical) insurance.	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2017
Mental health providers (ratio of population to mental health providers - population per one provider)	Ratio of the population to mental health providers. Mental health providers are defined as psychiatrists, psychologists, licensed clinical social workers, counselors, marriage and family therapists, and mental health providers that treat alcohol and other drug abuse, as well as advanced practice nurses specializing in mental healthcare.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2022

Measure	Description	Data Source	Most Recent Data Year(s)
	The ratio represents the number of		
	individuals served by one mental		
	health provider in a county, if the		
	population were equally distributed		
	across providers. In 2015, marriage		
	and family therapists and mental		
	health providers that treat alcohol		
	and other drug abuse were added to		
	this measure.		

Table A3.2: Built Environment

Measure	Description	Data Source	Most Recent Data Year(s)
Food environment index (index of factors that contribute to a healthy food environment, 0 (worst) to 10 (best))	The Food Environment Index measures the quality of the food environment in a county on a scale from 0 to 10. The Food Environment Index is comprised of two variables: Limited access to healthy foods from the USDA's Food Environment Atlas estimates the percentage of the population who are low income and do not live close to a grocery store. Living close to a grocery store is defined differently in rural and nonrural areas: in rural areas, it means living less than 10 miles from a grocery store whereas in nonrural areas, it means less than 1 mile. Low income is defined as having an annual family income of less than or equal to 200 percent of the federal poverty threshold for the family size. Food insecurity from Feeding America estimates the percentage of the population who did not have access to a reliable source of food during the past year. The two variables are scaled from 0 to 10 (zero being the worst value in the nation, and 10 being the best) and averaged to produce the Food Environment Index. In 2016, the average value for counties was 7.0 and most counties fell between about 5.4 and 8.3.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2019 & 2020
opportunities (percent of	who live reasonably close to a	Foundation & University	2022 & 2020

Measure	Description	Data Source	Most Recent Data Year(s)
Measure the population with adequate access to locations for physical activity)	Description location for physical activity. Locations for physical activity are defined as parks or recreational facilities. Individuals are considered to have access to exercise opportunities if they: reside in a census block that is within a half mile of a park or reside in an urban census block that is within one mile of a recreational facility or reside in a rural census block that is within three miles of a recreational facility. The numerator is the number of individuals who live in census blocks meeting at least one of the above criteria. The denominator is the total county population. Locations for physical activity are defined as parks or recreational facilities. Parks include local, state, and national parks. Recreational facilities include YMCAs as well as businesses identified by the following Standard Industry Classification (SIC) codes and include a wide variety of facilities including gyms, community centers, dance studios and pools: 799101,	Data Source of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	Most Recent Data Year(s)
	799108, 799109, 799110, 799111, 799112, 799201, 799701, 799702, 799703, 799704, 799707, 799711, 799717, 799723, 799901, 799908, 799958, 799969, 799971, 799984, or 799998. The way this measure is calculated has changed over time. In 2018, County Health Rankings switched from using North American Information Classification System (NAICS) codes to using Standard Industry Classification (SIC)codes due to lack of availability of a nationally reliable and updated data source.		
% Broadband Access	Percentage of households with broadband internet connection.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2017-2021

Measure	Description	Data Source	Most Recent Data Year(s)
Physical inactivity (percent of adults that report no leisure time physical activity)	Percentage of adults ages 20 and over reporting no leisure-time physical activity in the past month. Examples of physical activities include running, calisthenics, golf, gardening, or walking for exercise. The method for calculating Physical Inactivity changed. Data for Physical Inactivity are provided by the CDC Interactive Diabetes Atlas which combines 3 years of survey data to provide county-level estimates. In 2011, BRFSS changed their methodology to include cell phone and landline participants. Previously only landlines were used to collect data. Physical Inactivity is created using statistical modeling.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2020
Physical Activity (percentage)	This indicator shows the percentage of persons who reported at least 150 minutes of moderate physical activity or at least 75 minutes of vigorous physical activity per week.	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2019

Table A3.4: Diet and Exercise

Table A3.5: Education

Measure	Description	Data Source	Most Recent Data Year(s)
Students entering kindergarten ready to learn	This indicator shows the percentage of students who enter Kindergarten ready to learn.	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2017
School Segregation	The extent to which students within different race and ethnicity groups are unevenly distributed across schools when compared with the racial and ethnic composition of the local population. The index ranges from 0 to 1 with lower values representing a school composition that approximates race and ethnicity distributions in the student populations within the county, and higher values representing more segregation.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2021-2022

Measure	Description	Data Source	Most Recent Data Year(s)
School Funding Adequacy	The average gap in dollars between actual and required spending per pupil among public school districts. Required spending is an estimate of dollars needed to achieve U.S. average test scores in each district.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2020
% Less than 9 th Grade	Percentage of adults over age 25 who have less than a 9 th grade education.	ESRI Business Analyst. Data accessed September 2023.	2023
% Some High School	Percentage of adults over age 25 who attended some high school but did not earn their diploma or alternative credential.	ESRI Business Analyst. Data accessed September 2023.	2023
% High School Diploma	Percentage of adults over age 25 who earned a high school diploma.	ESRI Business Analyst. Data accessed September 2023.	2023
% GED/Alternative Credential	Percentage of adults over age 25 who earned a GED or an alternative credential.	ESRI Business Analyst. Data accessed September 2023.	2023
% Some College	Percentage of adults over age 25 who attended some college but did not earn their diploma.	ESRI Business Analyst. Data accessed September 2023.	2023
% Associate's Degree	Percentage of adults over age 25 who earned an Associate's degree.	ESRI Business Analyst. Data accessed September 2023.	2023
% Bachelor's Degree	Percentage of adults over age 25 who earned a four-year college Bachelor's degree.	ESRI Business Analyst. Data accessed September 2023.	2023
% Graduate/ Professional Degree	Percentage of adults over age 25 who earned a graduate or professional degree.	ESRI Business Analyst. Data accessed September 2023.	2023

Table A3.6: Employment

Measure	Description	Data Source	Most Recent Data Year(s)
Unemployment rate (percent of population age 16+ unemployed)	Percentage of a county's workforce that is not employed. The numerator is the number of individuals over age 16 in a county who are seeking work but do not have a job. The denominator is the total labor force, which includes all individuals over age 16 who are actively searching for work and unemployed plus those who are employed. Unemployment estimates are modeled.	ESRI Business Analyst. Data accessed September 2023.	2023

Measure	Description	Data Source	Most Recent Data Year(s)
Air pollution (avg daily measure of fine particulate matter in micrograms per cubic meter)	Average daily density of fine particulate matter in micrograms per cubic meter. Fine particulate matter is defined as particles of air pollutants with an aerodynamic diameter less than 2.5 micrometers (PM2.5). Air Pollution is modeled. For 2017, County Health Rankings is using data provided by the EPHT Network. From 2013-2016 the County Health Rankings used data provided by the NASA Applied Sciences Program, which used a similar methodology but also incorporates satellite data. For 2012 and prior years of the County Health Rankings, data were obtained from the EPHT Network, but the measures of air quality differed from the current measure: County Health Rankings reported the average number of days annually that both PM2.5 and ozone pollution were reported to be over the accepted limit.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2019
Presence of Water Violation	Indicator of the presence of health- related drinking water violations. 'Yes' indicates the presence of a violation, 'No' indicates no violation.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2021
Days with Unhealthy Air Quality	Number of days where the daily 8- hour maximum concentration of ozone exceeded 71 parts per billion, the minimum value deemed by the Environmental Protection Agency as unhealthy for sensitive groups.	American Lung Association. Data accessed September 2023.	2019-2021
Days with Unhealthy Particle Pollution	Number of days where the daily 24- hour maximum concentration for particles with diameter less than 2.5 micrometers exceeded 33.5 micrograms per cubic meter, the minimum value deemed by the Environmental Protection Agency as unhealthy for sensitive groups.	American Lung Association. Data accessed September 2023.	2019-2021

Table A3.7: Environmental Quality

Measure	Description	Data Source	Most Recent Data Year(s)
Percentage of children that live in single-parent household	Percentage of children (less than 18 years of age) in family households that live in a household headed by a single parent. The single parent could be a male or female and is without the presence of a spouse. Foster children and children living in non-family households or group quarters are not included in either the numerator or denominator.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2017-2021
Social associations (number of membership associations per 10,000 population)	Number of organizations per 10,000 population in a county. The numerator is the number of organizations or associations in a county. Associations include membership organizations such as civic organizations, bowling centers, golf clubs, fitness centers, sports organizations, political organizations, labor organizations, business organizations, and professional organizations. The denominator is the population of a county. Social Associations does not measure all of the social support available within a county. Data and business codes are self-reported by businesses in a county. We use the primary business code of organizations, which in some cases may not match up with our notion of what should be labeled as a civic organization. This measure does not take into account other important social connections offered via family support structures, informal networks, or community service organizations, all of which are important to consider when understanding the amount of social support available within a county.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2020
Disconnected youth	Percentage of teens and young adults ages 16-24 who are neither working nor in school.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2017-2021

Table A3.8: Family, Community, and Social Support

Measure	Description	Data Source	Most Recent Data Year(s)
Residential segregation - black/white	Degree to which two or more groups live separately from one another in a geographic area. The index of dissimilarity is a demographic measure of the evenness with which two groups (black and white residents, in this case) are distributed across the component geographic areas (census tracts, in this case) that make up a larger area (counties, in this case). The index score can be interpreted as the percentage of either black or white residents that would have to move to different geographic areas in order to produce a distribution that matches that of the larger area.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2017-2021
Percentage not proficient in English	Percentage of population that is not proficient in English.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2017-2021
Childcare Cost Burden	Childcare costs for a household with two children as a percent of median household income.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2022 & 2021
Childcare Centers	Number of childcare centers per 1,000 population under 5 years old.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2010-2022
Diversity Index	Likelihood of two people chosen at random being from a different race/ethnicity.	ESRI Business Analyst. Data accessed September 2023.	2023

Table A3.9: Food Security

Measure	Description	Data Source	Most Recent Data Year(s)
Percentage of households	Percentage of the population who	Robert Wood Johnson	
experiencing food	did not have access to a reliable	Foundation & University	2020
insecurity	source of food during the past year.	of Wisconsin Population	

Measure	Description	Data Source	Most Recent Data Year(s)
	This measure was modeled using information from the Community Population Survey, Bureau of Labor Statistics, and American Community Survey. More detailed information can be found here. This is one of two measures that are used to construct the Food Environment Index.	Health Institute, County Health Rankings. Data accessed September 2023.	
Limited access to healthy foods	Percentage of population who are low-income and do not live close to a grocery store.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2019
Children eligible for free or reduced-price lunch	Percentage of children enrolled in public schools, grades PK - 12, eligible for free (family income less than 130 percent of federal poverty level) or reduced price (family income less than 185 percent of federal poverty level) lunch.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2020-2021
Food Insecurity Among Middle School Students: All races/ethnicities	Percentage of students who, when asked, said they were worried that their food money would run out before they could buy more, and/or if the food their family bought did not last and they did not have money to get more.	The Maryland Youth Risk Behavior Survey/Youth Tobacco Survey (YRBS/YTS). Data accessed September 2023.	2021-2022
Food Insecurity Among High School Students: All races/ethnicities	Percentage of students who, when asked, said they were worried that their food money would run out before they could buy more, and/or if the food their family bought did not last and they did not have money to get more.	The Maryland Youth Risk Behavior Survey/Youth Tobacco Survey (YRBS/YTS). Data accessed September 2023.	2021-2022

Table A3.10: Housing and Homelessness

Measure	Description	Data Source	Most Recent Data Year(s)
Severe housing problems (percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, or lack of kitchen or plumbing facilities)	Percentage of households with one or more of the following housing problems: Housing unit lacks complete kitchen facilities; Housing unit lacks complete plumbing facilities; Household is severely overcrowded; or Household is severely cost burdened.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2015-2019

Measure	Description	Data Source	Most Recent Data Year(s)
	Incomplete kitchen facilities is defined as a unit which lacks a sink with running water, a range or a refrigerator. Incomplete plumbing facilities is defined as lacking hot and cold piped water, a flush toilet, or a bathtub/shower. Severe overcrowding is defined as more than 1.5 persons per room. Severe cost burden is defined as monthly housing costs (including utilities) that exceed 50 percent of monthly income. The numerator is the number of households in a county with at least one of the above housing problems and the denominator is the number of total		
Percentage of owner- occupied housing	Percentage of occupied housing units that are owned.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2017-2021
Percentage of people spending more than 50 percent of their income on rental housing	Number of renter-occupied housing units spending 50 or more percent of household income on rent as a percentage of total renter-occupied housing units.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2017-2021
Affordable Housing (percentage)	This indicator shows the percentage of housing units sold that are affordable on the median teacher's salary.	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2016

Table A3.11: Income

Measure	Description	Data Source	Most Recent Data Year(s)
Children in poverty (percent of children under age 18 in poverty)	Percentage of children under age 18 living in poverty. Poverty status is defined by family size and income and is measured at the household level. If a household's income is lower than the poverty threshold for a household of their size, they are	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2021

Measure	Description	Data Source	Most Recent Data Year(s)
	considered to be in poverty. Poverty thresholds differ by household size and geography. For more information on how poverty thresholds are calculated please see the Census poverty page. Children in Poverty estimates are modeled.		
Median household income	Income where half of households in a county earn more and half of households earn less. Income, defined as "Total income", is the sum of the amounts reported separately for: wage or salary income; net self- employment income; interest, dividends, or net rental or royalty income or income from estates and trusts; Social Security or Railroad Retirement income; Supplemental Security Income (SSI); public assistance or welfare payments; retirement, survivor, or disability pensions; and all other income. Receipts from the following sources are not included as income: capital gains; money received from the sale of property (unless the recipient was engaged in the business of selling such property); the value of income "in kind" from food stamps, public housing subsidies, medical care, employer contributions for individuals, etc.; withdrawal of bank deposits; money borrowed; tax refunds; exchange of money between relatives living in the same household; gifts and lump-sum inheritances, insurance payments, and other types of lump-sum receipts.	ESRI Business Analyst. Data accessed September 2023.	2023
Income inequality (ratio of household income at the 80th percentile to income at the 20th percentile)	Ratio of household income at the 80th percentile to that at the 20th percentile, i.e., when the incomes of all households in a county are listed from highest to lowest, the 80th percentile is the level of income at which only 20 percent of households have higher incomes, and the 20th percentile is the level of income at which only 20 percent of households	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2017-2021

Measure	Description	Data Source	Most Recent Data Year(s)
	have lower incomes. A higher inequality ratio indicates greater division between the top and bottom ends of the income spectrum.		
Percentage of individuals living in poverty	Number of people living below poverty level as percent of total population.	MedStar Franklin Square, FY21 Community Health Needs Assessment Advisory Taskforce Kickoff Meeting. Data accessed September 2023.	2017-2021
Household Income (\$, 000s) - All	Average annual household income in 2014-2015 for children (now in their mid-30s) who grew up in this area.	The Opportunity Atlas, developed in partnership by the U.S. Census Bureau, Harvard University, and Brown University. Data accessed September 2023.	2014-2015
% Asset Limited, Income Constrained, Employed Households	Percentage of households who are earning more than the Federal Poverty Level, but not enough to afford the basics where they live.	United for ALICE. Data accessed September 2023.	2021
Gender Pay Gap	Ratio of women's median earnings to men's median earnings for all full- time, year-round workers, presented as "cents on the dollar."	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2017-2021

Table A3.12: Length of Life

Measure	Description	Data Source	Most Recent Data Year(s)
Premature Death (years of potential life lost before age 75 per 100,000 population age- adjusted)	Number of events (i.e., deaths, births, etc.) in a given time period (three-year period) divided by the average number of people at risk during that period. Years of potential life lost measures mortality by giving more weight to deaths at earlier ages than deaths at later ages. Premature deaths are deaths before age 75. All of the years of potential life lost in a county during a three- year period are summed and divided by the total population of the county during that same time period-this	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2018-2020

Measure	Description	Data Source	Most Recent Data Year(s)
	value is then multiplied by 100,000 to calculate the years of potential life lost under age 75 per 100,000 people. These are age-adjusted.		
Premature Age-Adjusted Mortality	Number of deaths among residents under age 75 per 100,000 population (age-adjusted).	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2018-2020
Life expectancy	Average number of additional years t hat someone at a given age would be expected to live if current mortality conditions remaine d constant throughout their lifetime. Based on life expectancy at birth. State data are a single year while county data are a three-year aggregate. Data were not reported in the County Health Book prior to 2013.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2018-2020
Child mortality	Number of deaths among children under age 18 per 100,000 population	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2017-2020

Table A3.13: Maternal and Infant Health

Measure	Description	Data Source	Most Recent Data Year(s)
Low birthweight (percent of live births with birthweight < 2500 grams)	Percentage of live births where the infant weighed less than 2,500 grams (approximately 5 lbs., 8 oz.). The numerator is the number of low birthweight infants born over a 7- year time span, while the denominator is the total number of births in a county during the same time.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2014-2020
Infant mortality	Number of all infant deaths (within 1 year), per 1,000 live births.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data	2014-2020

Measure	Description	Data Source	Most Recent Data Year(s)
		accessed September 2023.	

Table A3.14: Mental Health

Measure	Description	Data Source	Most Recent Data Year(s)
Poor mental health days (avg number in past 30 days age-adjusted)	Average number of mentally unhealthy days reported in past 30 days. This measure is based on responses to the Behavioral Risk Factor Surveillance System (BRFSS) question: "Thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?" The value reported in the County Health Rankings is the average number of days a county's adult respondents report that their mental health was not good. Poor Mental Health Days is age-adjusted. Prior to the 2016 County Health Rankings, the CDC's BRFSS provided the County Health Rankings with county-level estimates that were constructed from seven years of responses from participants who used a landline phone. However, even with multiple years of data, these did not provide reliable estimates for all counties, particularly those with smaller respondent samples. In 2016, the CDC began producing single-year estimates at the county level using a combination of BRFSS data and a multilevel modeling approach based on respondent answers and individual characteristics such as age, sex, and race/ethnicity, along with county-level poverty and county and state-level contextual effects. Poor Mental Health Days estimates are created using statistical modeling.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2020
Frequent mental distress	≥14 days in response to the question, "Now, thinking about your mental	Foundation & University of Wisconsin Population	2020

Measure	Description	Data Source	Most Recent Data Year(s)
	health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?"	Health Institute, County Health Rankings. Data accessed September 2023.	
ED visit rate due to mental health conditions	This indicator shows the rate of emergency department visits related to mental health disorders (per 100,000 population).	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2017
Suicide Rate	This indicator shows the suicide rate per 100,000 population.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2016-2020
Hospitalization rate due to Alzheimer's or other dementias	This indicator shows the rate of hospitalizations related to Alzheimer's or other dementias (per 100,000 population).	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2017
% Visited Mental Health Provider	Percent of adults who saw a psychologist or psychiatrist in the past 12 months.	ESRI Business Analyst. Data accessed September 2023.	2023
% Used Prescription Antidepressant Medications	Percent of adults who were prescribed and used antidepressant medications in the last 12 months.	ESRI Business Analyst. Data accessed September 2023.	2023
% Used Prescription Antianxiety Medications	Percent of adults who were prescribed and used antianxiety medications in the last 12 months.	ESRI Business Analyst. Data accessed September 2023.	2023
% Depressive Disorder Diagnosis	Percent of adults reporting that a health professional has told them that they have a depressive disorder.	American Health Rankings. Data accessed September 2023.	2022

Table A3.15: Physical Health

Measure	Description	Data Source	Most Recent Data Year(s)
Poor or fair health (percent of adults reporting fair or poor health age-adjusted)	Percentage of adults in a county who consider themselves to be in poor or fair health. This measure is based on responses to the Behavioral Risk Factor Surveillance Survey (BRFSS) question: "In general, would you say that your health is excellent, very good, good, fair, or poor?" The value reported in the County Health Rankings is the percentage of	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2020

Measure	Description	Data Source	Most Recent Data Year(s)
	respondents who rated their health "fair" or "poor." Poor or Fair Health is age-adjusted. Prior to the 2016 County Health Rankings, the CDC's BRFSS provided the County Health Rankings with county-level estimates that were constructed from seven years of responses from participants who used a landline phone. However, even with multiple years of data, these did not provide reliable estimates for all counties, particularly those with smaller respondent samples. In 2016, the CDC began producing single-year estimates at the county level using a combination of BRFSS data and a multilevel modeling approach based on respondent answers and individual characteristics such as age, sex, and race/ethnicity, along with county-level poverty and county and state-level contextual effects. Poor or Fair Health estimates are created using statistical modeling.		
Poor physical health days (avg number of unhealthy days in past 30 days, age- adjusted)	Average number of physically unhealthy days reported in past 30 days. This measure is based on responses to the Behavioral Risk Factor Surveillance System (BRFSS) question: "Thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?" The value reported in the County Health Rankings is the average number of days a county's adult respondents report that their physical health was not good. Poor Physical Health Days is age-adjusted. Prior to the 2016 County Health Rankings, the CDC's BRFSS provided the County Health Rankings with county-level estimates that were constructed from seven years of responses from participants who used a landline phone. However, even with multiple years of data,	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2020

Measure	Description	Data Source	Most Recent Data Year(s)
	these did not provide reliable estimates for all counties, particularly those with smaller respondent samples. In 2016, the CDC began producing single-year estimates at the county level using a combination of BRFSS data and a multilevel modeling approach based on respondent answers and individual characteristics such as age, sex, and race/ethnicity, along with county-level poverty and county and state-level contextual effects. Poor Physical Health Days estimates are created using statistical modeling.		
Adult obesity (percent of adults that report a BMI >= 30)	Based on responses to the Behavioral Risk Factor Surveillance Survey (BRFSS) and is the percentage of the adult population (age 20 and older) that reports a body mass index (BMI) greater than or equal to 30 kg/m2. Participants are asked to self-report their height and weight. From these reported values, BMIs for the participants are calculated. The method for calculating Adult Obesity changed. Data for Adult Obesity are provided by the CDC Interactive Diabetes Atlas which combines 3 years of survey data to provide county-level estimates. In 2011, BRFSS changed their methodology to include cell phone and landline participants. Previously only landlines were used to collect data. Adult Obesity is created using statistical modeling.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2020
Frequent physical distress	Percentage of adults who reported ≥14 days in response to the question, "Thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?"	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2020
Diabetes prevalence	Prevalence of diagnosed diabetes in a given county. Respondents were considered to have diagnosed diabetes if they responded "yes" to the question, "Has a doctor ever told	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data	2020

Measure	Description	Data Source	Most Recent Data Year(s)
	you that you have diabetes?" Women who indicated that they only had diabetes during pregnancy were not considered to have diabetes.	accessed September 2023.	
Insufficient Sleep	Percentage of adults who report fewer than 7 hours of sleep on average.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2020
Adolescents who are obese	This indicator shows the percentage of adolescent public high school students who are obese.	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2016
Sudden unexpected infant death rate	This indicator shows the rate of sudden unexpected infant deaths (SUIDs) per 1,000 live births. Sudden unexpected infant deaths (SUIDs) include deaths from Sudden Infant Death Syndrome (SIDS), unknown cause, accidental suffocation and strangulation in bed.	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2016-2020
Adults who are not overweight or obese (percentage)	This indicator shows the percentage of adults who are not overweight or obese.	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2021
Cancer mortality rate	This indicator shows the age- adjusted mortality rate from cancer (per 100,000 population).	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2018-2020
Age-Adjusted Mortality Rate from Heart Disease	This indicator shows the age- adjusted mortality rate from heart disease (per 100,000 population).	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2018-2020
Age-adjusted Death Rate due to Diabetes (per 100,000 population)	Age-adjusted Death Rate due to Diabetes (per 100,000 population).	MD Vital Statistics Report. Data accessed September 2023.	2020
Age-adjusted Death Rate due to Stroke (per 100,000 population)	Age-adjusted Death Rate due to Stroke (per 100,000 population).	MD Vital Statistics Report. Data accessed September 2023.	2020

Table A3.16: Quality of Care

Measure	Description	Data Source	Most Recent Data Year(s)
Preventable hospital stays (rate for ambulatory sensitive conditions per 1,000 Medicare enrollees)	Hospital discharge rate for ambulatory care-sensitive conditions per 1,000 fee-for-service Medicare enrollees. That means it looks at people who were discharged from the hospital for conditions that, with appropriate care, can normally be treated without the need for a hospital stay. Examples of these conditions include convulsions, chronic obstructive pulmonary disease, bacterial pneumonia, asthma, congestive heart failure, hypertension, angina, cellulitis, diabetes, gastroenteritis, kidney/urinary infection, and dehydration. Preventable hospital stays are measured among fee-for- service Medicare enrollees and is age-adjusted.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2020
Mammography screening (percent of female Medicare enrollees)	Percentage of female Medicare enrollees ages 67-69 that received at least one mammogram during the last two years. The numerator is women ages 67-69 on Medicare who have received at least one mammogram during the past year. The denominator is all women ages 67-69 on Medicare in a specific geography.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2020
Children and adults who are vaccinated annually against seasonal influenza	Percentage of fee-for-service (FFS) Medicare enrollees that had an annual flu vaccination.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2020
Children receiving blood lead screening	This indicator reflects the percentage of children (aged 12-35 months) enrolled in Medicaid (90+ days) screened for lead in their blood.	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2021
Children with elevated blood lead levels	Number of children (0-72 months old) with blood lead levels > 10 μg/dL divided by the Total Number of Children (0-72 months old) tested.	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2020

Measure	Description	Data Source	Most Recent Data Year(s)
Early prenatal care	This indicator shows the percentage of pregnant women who receive prenatal care beginning in the first trimester.	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2020

Table A3.17: Safety

Measure	Description	Data Source	Most Recent Data Year(s)
Injury mortality per 100,000 population	Number of deaths from planned (e.g., homicide or suicide) and unplanned (e.g., motor vehicle deaths) injuries per 100,000 population. This measure includes injuries from all causes and intents over a 5-year period. Deaths are counted in the county of residence for the person who died, rather than the county where the death occurred.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2016-2020
Motor vehicle crash deaths	Number of deaths due to traffic accidents involving a motor vehicle per 100,000 population. Motor vehicle crash deaths include traffic accidents involving motorcycles; 3- wheel motor vehicles; cars; vans; trucks; buses; street cars; ATVs; industrial, agricultural, and construction vehicles; and bicyclists or pedestrians when colliding with any of the previously listed motor vehicles. Deaths due to boating accidents and airline crashes are not included in this measure. In prior years, non-traffic motor vehicle accidents were included in this definition. ICD10 codes included are V02-V04 (.1, .9), V09.2, V12-V14 (.3- .9), V19 (.46), V20-V28 (.39), V29- V79 (.49), V80 (.35), V81.1, V82.1, V83-V86 (.03), V87 (.08), and V89.2.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2014-2020
Homicides	Number of deaths from assaults, defined as ICD-10 codes X85-Y09, per 100,000 population	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data	2016-2020

Measure	Description	Data Source	Most Recent Data Year(s)
		accessed September 2023.	
Firearm fatalities	Number of deaths due to firearms, defined as ICD-10 codes W32-W34, X72-X74, X93-X95, Y22-Y24, and Y35.0, per 100,000 population.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2019
Juvenile arrests	Rate of delinquency cases per 1,000 juveniles.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2022
Child maltreatment rate	This indicator shows the rate of children who are maltreated per 1,000 population under the age of 18.	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2018-2020
Fall-related death rate	This indicator shows the rate of fall- related deaths per 100,000 population.	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2017
Pedestrian injury rate on public roads	This indicator shows the rate of pedestrian injuries on public roads per 100,000 population.	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2020
Domestic Violence	Number of domestic violence crimes divided by total population.	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2020

Table A3.18 Sexual Health

Measure	Description	Data Source	Most Recent Data Year(s)
Sexually transmitted infections (chlamydia rate per 100,000)	Number of newly diagnosed chlamydia cases per 100,000 population	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2020

Measure	Description	Data Source	Most Recent Data Year(s)
Teen birth rate (per 1,000 females ages 15-19)	Number of births to females ages 15- 19 per 1,000 females	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2014-2020
HIV prevalence	Number of diagnosed cases of HIV for persons aged 13 years and older in a county per 100,000 population.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2020
HIV incidence rate	This indicator shows the rate of adult/adolescent cases (age 13+) diagnosed with HIV (per 100,000 population).	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2021

Table A3.19: Substance Use Disorders

Measure	Description	Data Source	Most Recent Data Year(s)
Excessive drinking	Percentage of adults that report either binge drinking, defined as consuming more than 4 (women) or 5 (men) alcoholic beverages on a single occasion in the past 30 days, or heavy drinking, defined as drinking more than one (women) or 2 (men) drinks per day on average. Please note that the methods for calculating this measure changed in the 2011 Rankings and again in the 2016 Rankings. Excessive Drinking estimates are created using statistical modeling.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2020
Alcohol-impaired driving deaths	Percentage of motor vehicle crash deaths which had alcohol involvement. The National Highway Traffic Safety Administration defines a fatal crash as alcohol-related or alcohol-involved if either a driver or a non-motorist (usually a pedestrian or bicyclist) had a measurable or estimated blood alcohol concentration of 0.01 grams per deciliter or above. Alcohol-Impaired	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2016-2020

Measure	Description	Data Source	Most Recent Data Year(s)
	Driving Deaths are measured in the county of occurrence.		
Drug overdose deaths	Number of deaths due to drug poisoning per 100,000 population. ICD-10 codes used include X40-X44, X60-X64, X85, and Y10-Y14. These codes cover accidental, intentional, and undetermined poisoning by and exposure to: 1) nonopioid analgesics, antipyretics and antirheumatics, 2) antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs, not elsewhere classified, 3) narcotics and psychodysleptics [hallucinogens], not elsewhere classified, 4) other drugs acting on the autonomic nervous system, and 5) other and unspecified drugs, medicaments and biological substances.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2018-2020
Opioid prescriptions dispensed (per 100 persons)	Opioid prescriptions dispensed (per 100 persons).	Center for Disease Control and Prevention. Data accessed September 2023.	2020

Table A3.20: Tobacco Use

Measure	Description	Data Source	Most Recent Data Year(s)
Adult smoking	Percentage of the adult population that currently smokes every day or most days and has smoked at least 100 cigarettes in their lifetime. Please note that the methods for calculating this measure changed in the 2016 Rankings. Adult Smoking estimates are created using statistical modeling.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2020
Adolescents who use tobacco products	This indicator shows the percentage of adolescents (public high school students) who used any tobacco product in the last 30 days.	Maryland Department of Health, State Health Improvement Process (SHIP). Data accessed September 2023.	2016

Measure	Description	Data Source	Most Recent Data Year(s)
Driving alone to work (percent of the workforce that drives alone to work)	Percentage of the workforce that usually drives alone to work. The numerator is the number of workers who commute alone to work via a car, truck, or van. The denominator is the total workforce.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2017-2021
Long commute/driving alone (among workers who commute in their car alone, the percentage that commute more than 30 minutes)	Percentage of workers who drive alone (via car, truck, or van) with a commute longer than 30 minutes. The numerator is the number of workers who drive alone for more than 30 minutes during their commute. The denominator is the number of workers who drive alone during their commute.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2017-2021
Traffic volume	Average traffic volume per meter of major roadways in the county.	Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, County Health Rankings. Data accessed September 2023.	2019
% Car Ownership	Percent of households that own at least one insured car.	ESRI Business Analyst. Data accessed September 2023.	2023
Household Intracity Mass Transit Spending	Average household spending on fares for mass transit trips within the county.	ESRI Business Analyst. Data accessed September 2023.	2023

Table A3.21: Transportation Options and Transit

APPENDIX 4 | SECONDARY DATA COMPARISONS

Description of Focus Area Comparisons

When viewing the secondary data summary tables, please note that the following color shadings have been included to identify how Baltimore County compares to Maryland and the national benchmark. If both statewide Maryland and national data was available, Maryland data was preferentially used as the target/benchmark value.

Color Shading	Priority Level	Baltimore County Description
	Low	Represents measures in which Baltimore County scores are more than five percent better than the most applicable target/benchmark and for which a low priority level was assigned.
	Medium	Represents measures in which Baltimore County scores are comparable to the most applicable target/benchmark scoring within or equal to five percent , and for which a medium priority level was assigned.
	High	Represents measures in which Baltimore County scores are more than five percent worse than the most applicable target/benchmark and for which a high priority level was assigned.

Secondary Data Summary Table Color Comparisons

Note: Please see the methodology section of this report for more information on assigning need levels to the secondary data.

Please note that to categorize each metric in this manner and identify the priority level, the Baltimore County value was compared to the benchmark by calculating the percentage difference between the values, relative to the benchmark value:

(Baltimore Co Value – Benchmark Value)/(Benchmark) x 100 = % Difference Used to Identify Priority Level

For example, for the % Limited Access to Healthy Foods metric, the following calculation was completed:

(4.4-3.6)/(3.6) x 100% = 22.2% = Displayed as High Priority Level, Shaded in Red

This metric indicates that the percentage of the population with limited access to healthy foods in Baltimore County is 22 percent worse (or, in this case, higher) than the percentage of the population with limited access to healthy foods in the state of Maryland.

Detailed Focus Area Benchmarks

Measure	National Benchmark	Maryland Benchmark	Baltimore	Most Recent	Baltimore
% Uninsured	10.0%	6.7%	6 5%	2021	Medium
Primary Care Physicians Ratio	1,310:1	1.133:1	1,098:1	2021	Medium
Dentist Ratio	1,380:1	1,258:1	1,299:1	2021	Medium
Other Primary Care Provider Ratio	810:1	775:1	772:1	2022	Medium
Children receiving dental care	N/A	56.3	55.0	2021	Medium
ED visits due to addiction- related conditions	N/A	2,017	1,689	2017	Low
ED visits due to asthma	N/A	68.4	68.0	2017	Medium
ED visits due to diabetes	N/A	243.7	224.6	2017	Low
ED visits due to hypertension	N/A	351.2	340.7	2017	Medium
ED visits due to dental care	N/A	362.7	281.1	2017	Low
Persons with usual primary care provider	N/A	87.3%	88.6%	2021	Medium
Uninsured ED visits	N/A	8.6	7.9	2017	Low

Table A4.1: Access to Care

Table A4.2: Built Environment

Measure	National Benchmark	Maryland Benchmark	Baltimore County Data	Most Recent Data Year	Baltimore County Need
Food Environment Index	7.0	8.7	8.3	2019/2020	Low
% with Access to Exercise Opportunities	84.0%	92.0%	97.2%	2020/2022	Medium
Broadband Access	87.0%	90.0%	89.0%	2017-2021	Medium

Measure	National	Maryland	Baltimore	Most Recent	Baltimore
	Benchmark	Benchmark	County Data	Data Year	County Need
% Physically Inactive	22.0%	20.6%	25.0%	2020	High

Table A4.3: Diet and Exercise

Table A4.4: Education

Measure	National Benchmark	Maryland Benchmark	Baltimore County Data	Most Recent Data Year	Baltimore County Need
Students entering kindergarten ready to learn	N/A	45.0%	47.0%	2017	Medium
School segregation	0.25	0.26	0.18	2021-2022	Low
School funding adequacy	1,062	724	-260	2020	High

Table A4.5: Employment

Measure	National	Maryland	Baltimore	Most Recent	Baltimore
	Benchmark	Benchmark	County Data	Data Year	County Need
% Unemployed	5.4%	3.8%	4.1%	2023	High

Table A4.6: Environmental Quality

Measure	National	Maryland	Baltimore	Most Recent	Baltimore
	Benchmark	Benchmark	County Data	Data Year	County Need
Average Daily PM2.5	7.4	7.4	8.3	2019	High

Table A4.7: Family, Community and Social Support

Measure	National Benchmark	Maryland Benchmark	Baltimore County Data	Most Recent Data Year	Baltimore County Need
% Children in Single-Parent Households	25.0%	26.2%	29.1%	2017-2021	High
Social Association Rate	9.1	8.9	8.1	2020	High
% Disconnected Youth	7.0%	6.0%	6.1%	2017-2021	Medium
Segregation Index – Black/White	63.0	63.5	59.7	2017-2021	Low
% Not Proficient in English	14.0%	3.0%	2.0%	2017-2021	Low

Measure	National Benchmark	Maryland Benchmark	Baltimore County Data	Most Recent Data Year	Baltimore County Need
Diversity Index	72.1	74.3	68.4	2023	High
Childcare Cost Burden	27.0%	22.0%	22.0%	2021/2022	Low
Childcare Centers	7.0	6.0	5.0	2010-2022	High

Table A4.8: Food Security

Measure	National Benchmark	Maryland Benchmark	Baltimore County Data	Most Recent Data Year	Baltimore County Need
% Food Insecure	12.0%	9.0%	10.3%	2020	High
% Limited Access to Health Foods	6.0%	3.6%	4.4%	2019	High
% Eligible for Free or Reduced Lunch	53.0%	45.0%	52.0%	2020-2021	High
% Households with Children Receiving Public Assistance	24.4%	21.2%	23.3%	2020	High
Food Insecurity: Middle Schoolers	N/A	27.5%	31.6%	2021-2022	High
Food Insecurity: Middle Schoolers	N/A	27.5%	30.9%	2021-2022	High

Table A4.9: Housing and Homelessness

Measure	National Benchmark	Maryland Benchmark	Baltimore County Data	Most Recent Data Year	Baltimore County Need
% Severe Housing Problems	17.0%	15.7%	15.3%	2015-2019	Medium
% Homeowners	65.0%	67.3%	66.5%	2017-2021	Medium
% Severe Housing Cost Burden	14.0%	14.0%	14.0%	2017-2021	Medium
% Affordable Housing	N/A	48.1%	64.1%	2016	Low

Measure	National Benchmark	Maryland Benchmark	Baltimore County Data	Most Recent Data Year	Baltimore County Need
% Children in Poverty	17.0%	14.0%	14.2%	2021	Medium
Median Household Income	\$69,700	\$93,432	\$82,607	2023	High
Income Inequality	4.9	4.5	4.3	2017-2021	Medium
% Living in Poverty	12.8%	10.3%	9.8%	2017-2021	Medium
ALICE Households	28%	29%	34%	2021	High
Gender Pay Gap	0.81	0.87	0.85	2017-2021	Medium

Table A4.10: Income

Table A4.11: Length of Life

Measure	National Benchmark	Maryland Benchmark	Baltimore County Data	Most Recent Data Year	Baltimore County Need
Years of Potential Life Lost Rate	7,300	7,547	8,370.7	2018-2020	High
Premature Age- Adjusted Mortality	360	360	390	2018-2020	High
Life Expectancy	78.5	78.6	77.5	2018-2020	Medium
Child Mortality Rate	50.0	48.5	54.3	2017-2020	High

Table A4.12: Maternal and Infant Health

Measure	National Benchmark	Maryland Benchmark	Baltimore County Data	Most Recent Data Year	Baltimore County Need
% Low Birthweight	8.0%	8.7%	9.1%	2014-2020	Medium
Infant Mortality Rate	6.0	6.3	6.5	2014-2020	Medium

Table A4.13: Mental Health

Measure	National Benchmark	Maryland Benchmark	Baltimore County Data	Most Recent Data Year	Baltimore County Need
Mental Health Provider Ratio	340:1	315:1	262:1	2022	Low
Average No. of Mentally Unhealthy Days	4.4	4.1	4.5	2020	High
% Frequent Mental Distress	14.0%	12.7%	14.5%	2020	High

Moasuro	National	Maryland	Baltimore	Most Recent	Baltimore
weasure	Benchmark	Benchmark	County Data	Data Year	County Need
ED visits due to					
mental health	N/A	4,291.5	4,210.1	2017	Medium
conditions					
Hospitalization					
rate due to					
Alzheimer's or	N/A	515.5	559.0	2017	High
other					
dementias					
% Visited					
Mental Health	N/A	4.7%	4.9%	2023	High
Provider					
% Used					
Prescription	N/A	6.7%	7.0%	2023	High
Antidepressant		0.770	7.070	2025	111611
Medications					
% Used					
Prescription	N/A	7.6%	7 9%	2023	Medium
Antianxiety		7.070	7.570	2025	Weddini
Medications					
Depression rate	20.5%	16.6%	20.7%	2022	High
Suicide death	14.0	10.0	11.0	2016-2020	High
rate	14.0	10.0	11.0	2010-2020	ingi

Table A4.14: Physical Health

Measure	National Benchmark	Maryland Benchmark	Baltimore County Data	Most Recent Data Year	Baltimore County Need
% Adults with Obesity	32.0%	30.9%	31.7%	2020	Medium
% Adults with Diabetes	9.0%	9.1%	8.8%	2020	Medium
% Frequent Physical Distress	9.0%	6.8%	7.7%	2020	High
% Insufficient Sleep	33.0%	34.1%	34.2%	2020	Medium
% Fair or Poor Health	12.0%	10.6%	12.0%	2020	High
Avg. No. of Physically Unhealthy Days	3.0	2.5	2.5	2020	Medium
Adolescents who are obese	N/A	15.9	14.7	2016	Low
Adults who are not overweight or obese (%)	N/A	33.4	34.1	2021	Medium
Age-Adjusted Death Rate	N/A	163.3	180.9	2018-2020	High

Measure	National Benchmark	Maryland Benchmark	Baltimore County Data	Most Recent Data Year	Baltimore County Need
from Heart					
Disease					
Cancer Mortality Pate	N/A	145.5	158.3	2018-2020	High
Sudden unexpected infant death rate	N/A	0.8	0.7	2016-2020	Low
Age-adjusted Death Rate due to Stroke	38.8	42.5	47.1	2020	High

Table A4.15: Quality of Care

Measure	National Benchmark	Maryland Benchmark	Baltimore County Data	Most Recent Data Year	Baltimore County Need
Children/adults vaccinated annually against seasonal influenza	51.0%	55.0%	59.0%	2020	Low
Mammography screening	37.0%	37.0%	41.0%	2020	Low
Preventable hospital stays	28.1	26.5	30.1	2020	High
Children receiving blood lead screening	N/A	67.1	69.8	2021	Medium
Children with elevated blood lead levels	N/A	0.2	0.6	2020	High
Early prenatal care	N/A	70.2%	71.8%	2020	Medium

Table A4.16: Safety

Measure	National Benchmark	Maryland Benchmark	Baltimore County Data	Most Recent Data Year	Baltimore County Need
Firearm fatalities	12.0	12.3	12.9	2019	High
Homicides	6.0	9.1	8.8	2016-2020	Medium
Injury mortality	76.0	88.3	109.4	2016-2020	High
Juvenile arrests	24.0	27.1	38.9	2022	High
Motor vehicle crash deaths	12.0	8.9	8.3	2014-2020	Low
Child maltreatment rate	N/A	4.6	3.7	2018-2020	Low

Measure	National Benchmark	Maryland Benchmark	Baltimore County Data	Most Recent Data Year	Baltimore County Need
Domestic Violence	N/A	568.6	1079.0	2020	High
Fall-related death rate	N/A	10.6	15.5	2017	High
Pedestrian injury rate on public roads	N/A	53.5	54.4	2020	Medium

Table A4.17: Sexual Health

Measure	National Benchmark	Maryland Benchmark	Baltimore County Data	Most Recent Data Year	Baltimore County Need
Teen Birth Rate	19.0	15.2	13.2	2014-2020	Low
HIV Prevalence Rate	380.0	655.4	466.8	2020	Low
HIV Incidence Rate	N/A	15.0	14.8	2021	Medium
Chlamydia Rate	481.3	535.9	533.1	2020	Medium

TableA4.18: Substance Use Disorders

Measure	National Benchmark	Maryland Benchmark	Baltimore County Data	Most Recent Data Year	Baltimore County Need
Drug Overdose Mortality Rate	23.0	41.1	50.8	2018-2020	High
% Excessive Drinking	19.0%	14.6%	16.9%	2020	High
% Driving Deaths with Alcohol	27.0%	28.3%	26.8%	2016-2020	Low
Opioid prescriptions dispensed	43.3	39.5	41.7	2020	High

Table A4.19: Tobacco Use

Measure	National Benchmark	Maryland Benchmark	Baltimore County Data	Most Recent Data Year	Baltimore County Need
% Smokers	16.0%	11.1%	13.8%	2020	High
Adolescents who use tobacco products	N/A	14.4%	16.5%	2016	High

Measure	National Benchmark	Maryland Benchmark	Baltimore County Data	Most Recent Data Year	Baltimore County Need
Traffic Volume	505.0	695.2	835.4	2019	High
% Drive Alone to Work	73.0%	69.8%	75.1%	2017-2021	High
% Long Commute – Drives Alone	37.0%	49.6%	45.1%	2017-2021	Low
% Car Ownership	N/A	89.8%	90.7%	2023	Medium
Mass Transit Spending	N/A	102.6	88.2	2023	Low

Table A4.20: Transportation Options and Transit