Maryland
DEPARTMENT OF HEALTH

DIABETES IN MARYLAND: BACKGROUND

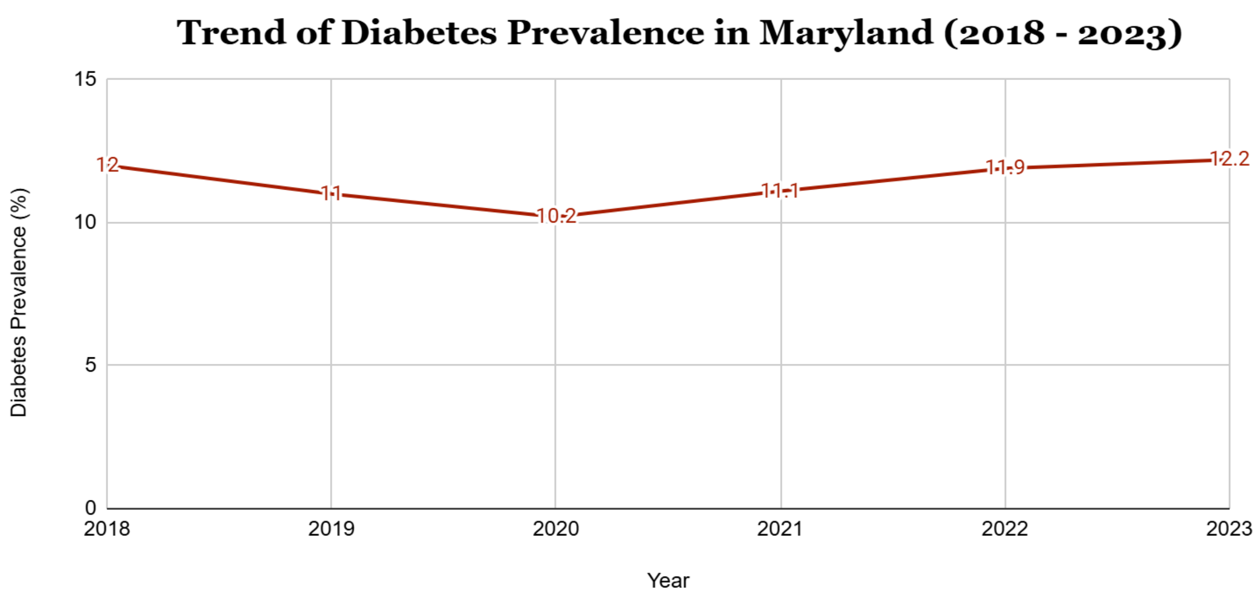
Diabetes is a chronic health condition that affects the body's ability to regulate blood glucose levels. Without effective management, it can lead to serious health complications and increased medical needs.[1] In Maryland, diabetes remains a major public health concern, ranking as the 7th leading cause of death in the state.[2] In 2022, the state reported an age-adjusted diabetes mortality rate of 23.1 per 100,000 residents, with 1,796 deaths.[3] An estimated 90.2% of diagnosed adults in Maryland have Type 2 diabetes, while 9.8% report having Type 1.[4,5] Understanding the distribution of diabetes types is essential for developing effective prevention and management strategies, as each type requires distinct clinical approaches.[4] Prediabetes, a condition where blood glucose levels are higher than normal but not yet high enough to be diagnosed as diabetes, is also widespread.[6] In the U.S., approximately 97.6 million adults have prediabetes, putting them at increased risk of developing type 2 diabetes.[6] Diabetes burden is higher in communities with limited access to healthcare, nutritious food, and safe environments for physical activity.[7] Diabetes increases the risk of cardiovascular disease, kidney failure, vision loss, and other complications. Evidence shows that clinical care, lifestyle changes, and patient education can improve outcomes and reduce long-term risks.[8] This brief presents findings from the 2022 and 2023 Maryland Behavioral Risk Factor Surveillance System (BRFSS) on diabetes prevalence, self-management practices, and adherence to recommended care.

METHODS

The Maryland Behavioral Risk Factor Surveillance System (BRFSS) is an annual, telephone-based survey that collects data on health-related risk behaviors, chronic health conditions, and use of preventive services among noninstitutionalized adult Maryland residents. It is part of the national BRFSS and is conducted under Centers for Disease Prevention and Control (CDC) guidance. The survey employs a dual-frame sampling design, incorporating both landline and cellular telephone interviews. The BRFSS questionnaire includes a core set of questions used by all states, CDC optional modules that states may elect to include, and state-added questions addressing local health concerns. Diabetes prevalence is assessed annually in the core section, while diabetes management questions are included biennially as state-added items. To improve data representativeness, the CDC uses iterative proportional fitting (raking) to weight survey responses, adjusting for demographic differences such as age, sex, race/ethnicity, education, marital status, home ownership, and telephone source. By applying these weights, the BRFSS data more accurately reflect the health status and behaviors of the state's adult population. Data included in this document is not age-adjusted. For more detailed information about the Maryland BRFSS questionnaires and methodology, please visit the Maryland BRFSS website.

RESULTS

In 2023, 12.2% of Maryland adults reported being diagnosed with diabetes.[5] While this figure reflects the statewide average, prevalence varied across demographic and socioeconomic groups. Diabetes prevalence was similar for men and women (12.7% vs. 11.7%), but varied by race and ethnicity. Black non-Hispanic adults reported the highest rate at 15.4%, followed by Asian non-Hispanic adults (12.8%), White non-Hispanic adults (10.9%), adults of Other race (10.4%), and Hispanic adults (10.2%).[5] Diabetes prevalence increased steadily with age, from 3.5% among adults aged 25–34 to 23.4% among those aged 65 and older.[5] There were clear differences by education level. Adults who did not graduate high school reported a diabetes rate of 15.5%, compared to 14.4% among high school graduates, 12.7% among those with some college or technical training, and 9.6% among college graduates.[5] A review of statewide data over time shows how diabetes prevalence in Maryland has changed from 2018 to 2023 (see chart: Trend of Diabetes Prevalence in Maryland, 2018–2023).



Income level was also associated with diabetes prevalence. Adults with household incomes below $35,000 reported rates ranging from 16.1% to 18.8%, while those earning $200,000 or more had a rate of 6.8%.[5] Diabetes was more commonly reported among individuals who were retired or unable to work (24.2%), compared to those who were employed (8.3%).[5] This may reflect age differences, as retired adults are generally older than those who are employed. Adults with one or more disabilities reported a diabetes prevalence of 20.0%, which was more than double the rate among those with no reported disabilities (9.7%).[5] Engaging in regular physical activity was associated with a lower diabetes rate. Adults who reported no physical activity had a prevalence of 18.7%, compared to 10.3% among those who were physically active.[5]

Geographic differences were also evident. The highest county-level prevalence was reported in Dorchester (18.5%), Garrett (17.2%), and Baltimore City (15.0%). The lowest were reported in Somerset (7.7%) and Carroll (8.4%) (Map 1).[5] Regionally, prevalence was highest in the Western (13.5%) and Southern (13.1%) parts of the state.[5]

Map 1: Heat Map of Diabetes Prevalence Among Maryland Adults by County, 2023

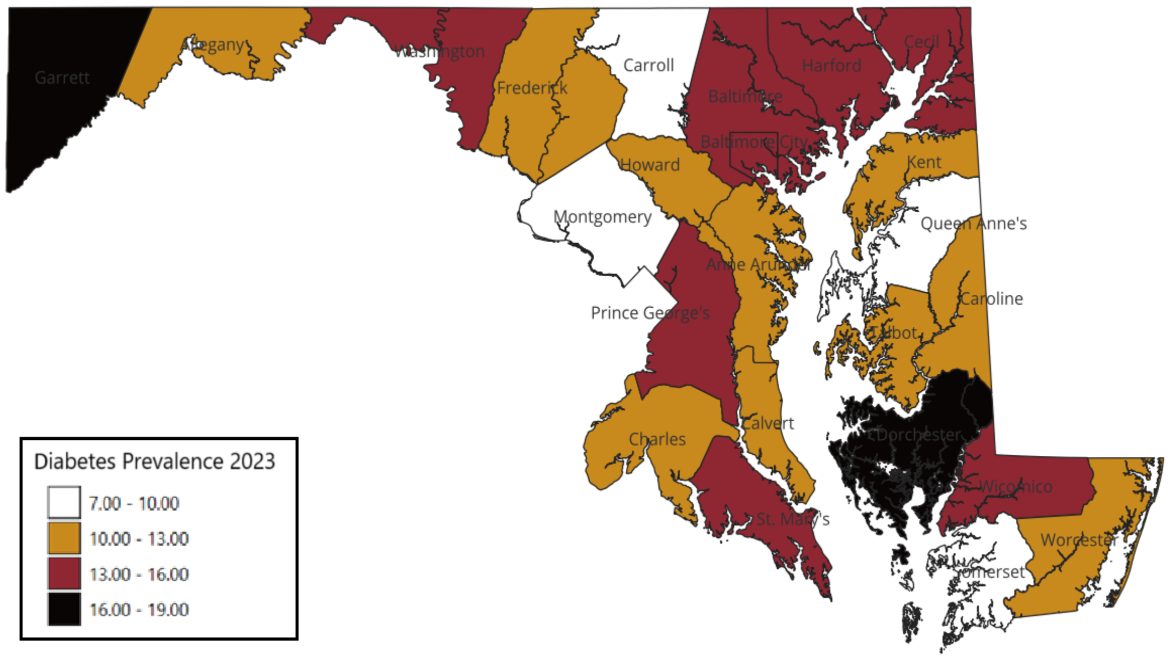


Table 1: Prevalence of diabetes among Maryland adults, 2023 (excludes women only told during pregnancy).

Diabetes Prevalence (BRFSS)	2023
Statewide	12.2 (11.4 - 13.0)
Sex	
Male	12.7 (11.6 - 13.9)
Female	11.7 (10.7 - 12.8)
Race	
White Non-Hispanic	10.9 (10.0 - 11.8)
Black Non-Hispanic	15.4 (13.7 - 17.1)
Asian Non-Hispanic	12.8 (8.6 - 16.9)
Hispanic	10.2 (7.8 - 12.6)
Other	10.4 (6.8 - 14.0)
Education	
Did not Graduate High School	15.5 (12.3 - 18.8)
High School Graduate	14.4 (12.7 - 16.1)
Went to some College/ Technical School	12.7 (11.1 - 14.2)
College/ Technical School Graduate	9.6 (8.7 - 10.6)
Income	
Less than $15,000	16.1 (11.5 - 20.6)
$15,000 to <$25,000	16.8 (13.4 - 20.2)
$25,000 to <$35,000	18.8 (14.9 - 22.8)
$35,000 to < $50,000	15.8 (12.7 - 19.0)
$50,000 to < $100,000	11.9 (10.5 - 13.3)
$100,000 to <$200,000	10.7 (9.1 - 12.3)
$200,000+	6.8 (4.6 - 8.9)
Disability	
One or more Disabilities	20.0 (18.2 - 21.9)
No Disability	9.7 (8.8 - 10.5)
Physical Activity	

Reported Physical Activity	10.3 (9.5 - 11.2)
No Physical Activity	18.7 (16.9 - 20.6)

Diabetes Self-Management and Standards of Care

The diabetes management module, included in the 2022 Maryland BRFSS, provides important insights into how adults with diabetes engage in clinical care and self-management practices. In line with American Diabetes Association (ADA) recommendations, 73.9% of adults with diabetes reported receiving two or more A1c tests in the past 12 months, while an additional 19.2% received one test.[9] However, 6.3% had not received an A1c test at all. Men were more likely than women to report two or more tests (77.6% vs. 69.8%), and rates were similarly high among both White non-Hispanic (75.3%) and Black non-Hispanic (73.3%) adults.

Screening for diabetes-related eye complications was less consistent.[5] Overall, 69.4% of adults with diabetes reported receiving a dilated eye exam in the past year—25.8% within the past month and 43.6% within the past 12 months. However, 6.3% had never received a dilated eye exam. Black adults were more likely than White adults to report a recent exam (31.3% vs. 23.8%), though about 1 in 6 both groups had gone more than a year without one. Rates were comparable between men and women.

Table 2: Clinical Management, Screening, and Education Participation Among Maryland Adults With Diabetes, 2022

Indicator	%	95% CI
Insulin Use		
Currently uses insulin	31.7	26.3 – 37
Does not use insulin	68.3	63.0 – 73.7
Time Since Last Dilated Eye Exam		
Within the past month	25.8	20.9 – 30.7
One month to less than 12 months ago	43.6	37.8 – 49.4
One year but less than two years ago	13.6	9.4 - 17.7
Two or more years ago	10.8	7.6 - 13.9
Never	6.3	3.1 - 9.4
Times A1c Checked in Past 12 Months		

1 time	19.2	14.6 - 23.9
2 or more times	73.9	68.8 - 79.1
Ever Took a Diabetes Self-Management Class		
Yes	48.0	42.2 - 53.8
No	52.0	46.2 – 57.8
Type of Diabetes		
Type I	9.8	5.9 - 13.7
Type II	90.2	86.3 - 94.1

Insulin use was reported by 31.7% of adults with diabetes.[5] This was consistent by sex (31.2% among men and 32.2% among women), but higher among Black adults (37.7%) compared to White adults (28.0%), reflecting potential differences in disease severity, access to care, or treatment approaches. Participation in diabetes self-management education remained limited. Only 48.0% of adults with diabetes reported ever taking a self-management course.[5] While 11.6% had done so in the past year, more than half (52.0%) had never participated. Notable disparities were observed by race and education. Among White non-Hispanic adults, only 5.9% had taken a class in the past year and 62.4% had never done so, compared to 15.8% and 41.0%, respectively, among Black non-Hispanic adults. Adults without a high school diploma were significantly less likely to have ever participated in diabetes education.[5] Continued efforts are needed to improve the uptake of diabetes education and preventive services, particularly among underserved populations. Sustained investment in equitable care delivery and support programs will be essential to narrowing disparities and improving outcomes for all Maryland adults living with diabetes.

CONCLUSION

In 2023, 12.2% of Maryland adults reported being diagnosed with diabetes, a slight increase from 11.9% in 2022.[5] This trend underscores the ongoing burden of diabetes across the state. The prevalence remains disproportionately higher among Black non-Hispanic and Asian non-Hispanic residents, individuals with lower income and educational attainment, people with disabilities, and those who report no physical activity. These disparities reflect the broader influence of social and structural factors on chronic disease outcomes. Data from the 2022 BRFSS highlight continued disparities in access to and utilization of recommended diabetes care and management practices. Fewer than half of adults with diabetes received all core components of guideline-based care, including regular A1c testing and dilated eye exams.[5] Only 48.0% had ever participated in a diabetes self-management education course, with lower participation rates observed among White adults and those without a high school diploma. Evidence shows that structured self-management education improves clinical outcomes, supports adherence to care guidelines, and reduces complications.[5] In Maryland, expanding access to these services—particularly in underserved and high-risk communities—is essential. Future efforts should focus on increasing equitable access to preventive services, enhancing provider referrals to Diabetes Self-Management Education and Support (DSMES) programs, and addressing the barriers that contribute to persistent disparities in diabetes care across the state.[10]

Resources

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