MSDH

Diabetes

Among Adults in Mississippi

Analysis of 2022 Mississippi Behavioral Risk Factor Surveillance System (BRFSS) Data

July 31, 2024

Mississippi BRFSS
Behavioral Risk Factor Surveillance System

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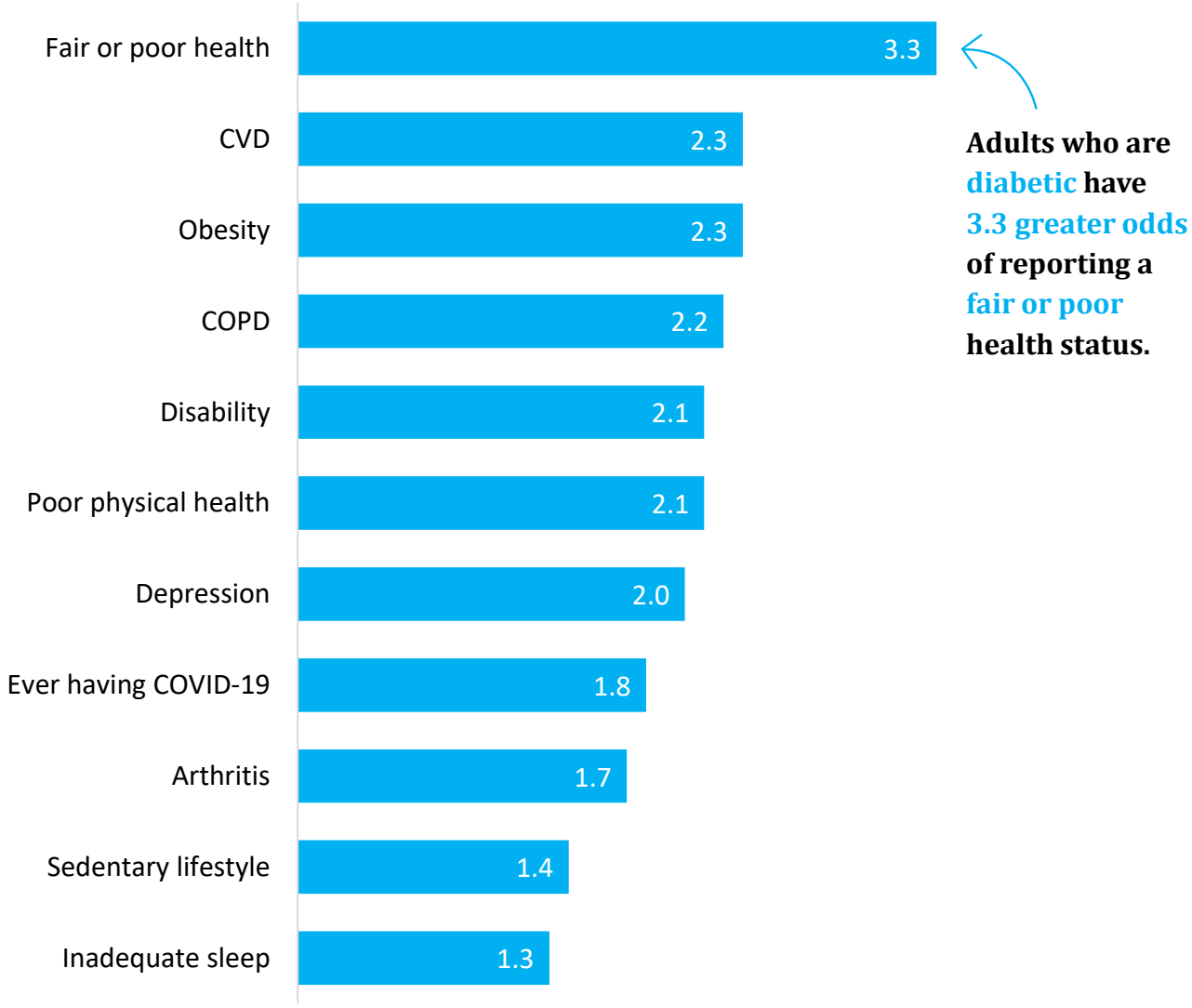
SUMMARY OF FINDINGS

Diabetes in Mississippi

- Approximately **1 in 7 adults** (15.3%) had ever been told they had diabetes in Mississippi in 2022.
- Having a history of diabetes was found to be higher among **non-Hispanic Black adults, older adults**, adults who **did not graduate high school**, and adults with **lower annual household incomes**.
- The prevalence of diabetes **increased significantly** from 2013 (12.9%) to 2022 (15.3%).

Mississippi adults who have diabetes have significantly higher odds of the following:



Notes:

- Due to small numbers, this report does not distinguish between type 1 and type 2 diabetes. Therefore, all information is self-reported from adults who reported having either type of diabetes. To request type-specific diabetes data, please submit a data request using MSDH's online form.
- All responses in the MS BRFSS survey are self-reported and may not necessarily represent medical diagnoses.

Important Information

About BRFSS

- The Mississippi Behavioral Risk Factor Surveillance System (BRFSS) is conducted annually to monitor the prevalence of behaviors that contribute to the leading causes of morbidity and mortality among adults in our state.
- The 2022 Mississippi BRFSS was completed by 4,239 Mississippians aged 18 years or older.

About This Report

- The estimates in this report are weighted to represent the adult population of Mississippi.
- Some estimates in this report are based on a cell size (numerator) of less than 20. Use caution when interpreting and comparing these estimates. Cell sizes for each estimate are included in each topic's respective data table.
- For BRFSS data, CDC recommends not interpreting percentages where the denominator is based upon fewer than 50 non-weighted respondents or the relative standard error (RSE) of the estimate is greater than 30%. In the tables of this report, results replaced with a dash (-) indicate a sample size of less than 50 or an RSE greater than 30%.
- The difference between two estimates is considered statistically significant (also stated as "significantly higher/lower" or "significant" in this report) if the 95% confidence intervals do not overlap.
- Multiple logistic regression was used to calculate adjusted odds ratios and 95% confidence intervals for factors associated with alcohol consumption. The odds ratios are adjusted by sex, race, age group, education level, and annual household income. If the confidence interval for the odds ratio does not include the number 1.0, then the calculated odds ratio is considered statistically significant.
- In this report, "Other Race" refers to adults who reported their race/ethnicity as anything other than White, Non-Hispanic (NH) or Black, NH.
- In the 2022 MS BRFSS, the numbers of responses for individual races and ethnicities contained in the "Other Race" demographic group (Table A, below) were too low to allow for meaningful estimates. To request additional race/ethnicity data, please submit a data request using MSDH's online form.

Table A. Races and Ethnicities Included in the "Other Races/Ethnicities" Demographic Group

Race/Ethnicity	TOTAL 2022 SURVEY SAMPLE		
	Unweighted Total	Weighted Total	Weighted Percent
American Indian or Alaskan Native, Non-Hispanic	26	36,684	1.66
Asian, Non-Hispanic	29	32,004	1.45
Any race, Hispanic	67	82,236	3.77
Multiracial, Non-Hispanic	24	22,608	1.03
Native Hawaiian or Pacific Islander, Non-Hispanic	1	1,131	0.05
Other race, Non-Hispanic	0	0	0.0
Total "Other Races/Ethnicities" Demographic Group	147	174,663	7.96

Survey Questions for Each Topic in This Report
(2022 MS BRFSS Survey)

Diabetes

- **Diabetes Prevalence:** Has a doctor, nurse, or other health professional ever told you that you had diabetes? *(Asked of all respondents. From Core Section 7: Chronic Health Conditions)*
- **Diabetes Type:** According to your doctor or other health professional, what type of diabetes do you have? *(Asked only of respondents who had ever been told they had diabetes. From Module 2: Diabetes)*
- **Current Insulin Use:** Insulin can be taken by shot or pump. Are you now taking insulin? *(Asked only of respondents who had ever been told they had diabetes. From Module 2: Diabetes)*
- **Blood Glucose Monitoring (A1C):** About how many times in the past 12 months has a doctor, nurse, or other health professional checked you for A1C? *(Asked only of respondents who had ever been told they had diabetes. From Module 2: Diabetes)*
- **Eye Exam: Pupil Dilation:** When was the last time you had an eye exam in which the pupils were dilated, making you temporarily sensitive to bright light? *(Asked only of respondents who had ever been told they had diabetes. From Module 2: Diabetes)*
- **Eye Exam: Retinal Photography:** When was the last time a doctor, nurse, or other health professional took a photo of the back of your eye with a specialized camera? *(Asked only of respondents who had ever been told they had diabetes. From Module 2: Diabetes)*
- **Education in Diabetes Self-Management:** When was the last time you took a course or class in how to manage your diabetes yourself? *(Asked only of respondents who had ever been told they had diabetes. From Module 2: Diabetes)*
- **Foot Sore Healing Time:** Have you ever had any sores or irritations on your feet that took more than four weeks to heal? *(Asked only of respondents who had ever been told they had diabetes. From Module 2: Diabetes)*

Health Care Access *(All Questions from Module 3: Health Care Access)*

- **Health Coverage:** What is the current primary source of your health insurance?
- **Doctor Cost:** Was there a time in the past 12 months when you needed to see a doctor but could not because you could not afford it?
- **Personal Doctor:** Do you have one person or a group of doctors that you think of as your personal health care provider?
- **Checkup in Past Year:** About how long has it been since you last visited a doctor for a routine checkup?

Self-Reported Health

- **General Health:** Would you say that in general your health is excellent, very good, good, fair, or poor? *(From Core Section 1: Health Status)*
- **Physical Health:** Now 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? *(From Core Section 2: Healthy Days)*
- **Mental Health:** Now 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? *(From Core Section 2: Healthy Days)*

Other Health Conditions

- **Arthritis:** Has a doctor, nurse, or other health professional ever told you that you had some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia? *(From Core Section 7: Chronic Health Conditions)*
- **Cancer** *(All questions from Core Section 7: Chronic Health Conditions):*
    - Has a doctor, nurse, or other health professional ever told you that you had skin cancer that is not melanoma?
    - Has a doctor, nurse, or other health professional ever told you that you had melanoma or any other types of cancer?
- **Cardiovascular Disease (CVD)** *(All questions from Core Section 7: Chronic Health Conditions):*
    - Has a doctor, nurse, or other health professional ever told you that you had a heart attack, also called a myocardial infarction?
    - Has a doctor, nurse, or other health professional ever told you that you had angina or coronary heart disease?
    - Has a doctor, nurse, or other health professional ever told you that you had a stroke?
- **Chronic Obstructive Pulmonary Disease (COPD):** Has a doctor, nurse, or other health professional ever told you that you had COPD (chronic obstructive pulmonary disease), emphysema, or chronic bronchitis? *(Core Section 7: Chronic Health Conditions)*
- **COVID-19:** Has a doctor, nurse, or other health professional ever told you that you tested positive for COVID-19? *(Emerging Core Section: Long-term COVID Effects)*
- **Diabetes:** Has a doctor, nurse, or other health professional ever told you that you had diabetes? *(Core Section 7: Chronic Health Conditions)*
- **Disability** *(All questions from Core Section 9: Disability):*
    - Are you deaf or do you have serious difficulty hearing?
    - Are you blind or do you have serious difficulty seeing, even when wearing glasses?
    - Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering, or making decisions?
    - Do you have serious difficulty walking or climbing stairs?
    - Do you have difficulty dressing or bathing?
    - Because of a physical, mental, or emotional condition, do you have difficulty doing errands alone such as visiting a doctor's office or shopping?
- **Depression:** Has a doctor, nurse, or other health professional ever told you that you had a depressive disorder (including depression, major depression, dysthymia, or minor depression)? *(Core Section 7: Chronic Health Conditions)*
- **Long COVID-19 Symptoms:** Did you have any symptoms lasting 3 months or longer that you did not have prior to having coronavirus or COVID-19*? (Emerging Core Section: Long-term COVID Effects)*
- **Obesity** *(All questions from Core Section 8: Demographics):*
    - About how much do you weight without shoes?
    - About how tall are you without shoes?

Health Risk Behaviors

- **Current Cigarette Smoking** *(All questions from Core Section 12: Tobacco Use)***:**
    - Have you smoked at least 100 cigarettes in your entire life?
    - Do you now smoke cigarettes every day, some days, or not at all?

Health Risk Behaviors (continued)

- **E-Cigarette Use:** Would you say you have never used e-cigarettes or other electronic vaping products in your entire life or now use them every day, use them some days, or used them in the past but do not currently use them at all? (*From Core Section 12: Tobacco Use*)
- **HIV Risk Behaviors** (*From Core Section 16: HIV/AIDS*)**:**

  I am going to read you a list. When I am done, please tell me if any of the situations apply to you. You do not need to tell me which one.

  - You have injected any drug other than those prescribed for you in the past year.
  - You have been treated for a sexually transmitted disease or STD in the past year.
  - You have given or received money or drugs in exchange for sex in the past year.
  - You had anal sex without a condom in the past year.
  - You had four or more sex partners in the past year.

  Do any of these situations apply to you?
- **Inadequate Sleep:** On average, how many hours of sleep do you get in a 24-hour period? *(From Core Section 5: Inadequate Sleep)*
- **Sedentary Lifestyle:** During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise? *(From Core Section 4: Exercise)*

Social Determinants of Health *(All Questions from Module 16: Social Determinants and Health Equity)*

- **Life Satisfaction:** In general, how satisfied are you with your life? Are you very satisfied, satisfied, dissatisfied, or very dissatisfied?
- **Social and Emotional Support:** How often do you get the social and emotional support that you need? Is that always, usually, sometimes, rarely, or never?
- **Social Isolation:** How often do you feel socially isolated from others? Is it always, usually, sometimes, rarely, or never?
- **Loss of Employment/Reduced Hours:** In the past 12 months have you lost employment or had hours reduced?
- **Food Stamps:** During the past 12 months, have you received food stamps, also called SNAP, the Supplemental Nutrition Assistance Program, on an EBT card?
- **Food Insecurity:** During the past 12 months, how often did the food that you bought not last, and you didn't have money to get more? Was that always, usually, sometimes, rarely, or never?
- **Unable to Pay Bills:** During the past 12 months, was there a time when you were not able to pay your mortgage, rent, or utility bills?
- **Utilities:** During the past 12 months, was there a time when an electric, gas, oil, or water company threatened to shut off services?
- **Reliable Transportation:** During the past 12 months, has a lack of reliable transportation kept you from medical appointments, meetings, work, or from getting things needed for daily living?
- **Stress:** Stress means a situation in which a person feels tense, restless, nervous, or anxious or is unable to sleep at night because their mind is troubled all the time. Within the last 30 days, how often have you felt this kind of stress? Was it always, usually, sometimes, rarely, or never?

Diabetes Prevalence

In this report, a respondent is considered to have been diagnosed with diabetes if they reported ever being told by a doctor, nurse, or other health professional that they had diabetes.

Overall (Figure 1.1)

- Approximately 1 in 7 adults (15.3%) reported ever being told by a doctor, nurse, or other health practitioner that they had diabetes.
- Among adults diagnosed with diabetes, 11.3% were diagnosed with Type 1, 77.5% were diagnosed with Type 2, and 11.2% did not know which type of diabetes they had.

Sex (Figure 1.2)

- The percentage of being diagnosed with diabetes was **higher** among **women** (16.3%) compared to men (14.3%); however, the difference was **not statistically significant**.

Race/Ethnicity (Figure 1.3)

- The percentage of being diagnosed with diabetes was **highest** among **Black, Non-Hispanic (NH) adults** (16.8%), followed by adults of other races/ethnicities (14.9%), and White, NH adults (14.6%). However, there were **no statistically significant differences** in percentage among race/ethnicity groups.

Age (Figure 1.4)

- Overall, the percentage of being diagnosed with diabetes increased as age increased and was **significantly higher** among adults aged **55-64 years** (27.8%) **and 65+ years** (26.7%) compared to adults aged 25-34 years (4.1%), 35-44 years (8.2%), and 45-54 years (16.2%). (Note: The percentage among adults aged 18-24 years was suppressed due to low response.)

Educational Attainment (Figure 1.5)

- The percentage of being diagnosed with diabetes was **significantly higher** among adults who **did not complete high school** (23.6%) compared to adults of all higher education levels.

Annual Household Income (Figure 1.6)

- Overall, the percentage of being diagnosed with diabetes increased as annual household income decreased and was **significantly higher** among adults who earned **less than $15,000** (24.3%) compared to adults who earned $50,000 to $74,999 (12.4%) and $75,000 or more (10.4%).

Trend (Figure 1.7)

- The percentage of being diagnosed with diabetes **significantly increased** from 12.9% in 2013 to 15.3% in 2022.

Figure 1.1. Percentage of Adults by Type of Diabetes

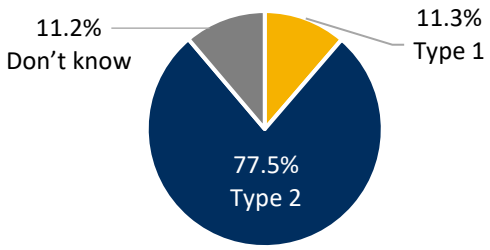


Figure 1.2. Percentage of Adults Ever Diagnosed with Diabetes by Sex

Figure 1.3. Percentage of Adults Ever Diagnosed with Diabetes by Race/Ethnicity

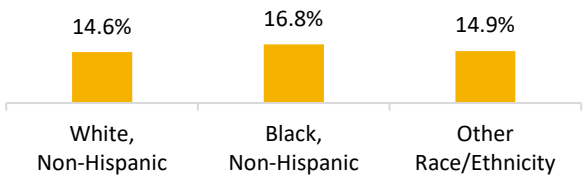
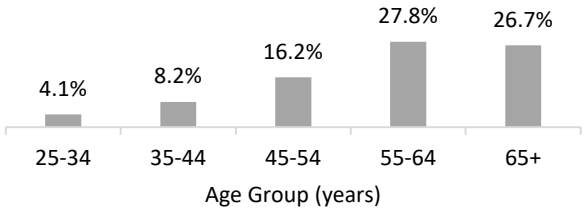


Figure 1.4. Percentage of Adults Ever Diagnosed with Diabetes by Age



Note: 18-24 years age group suppressed due to low response.

Figure 1.5. Percentage of Adults Ever Diagnosed with Diabetes by Education Level

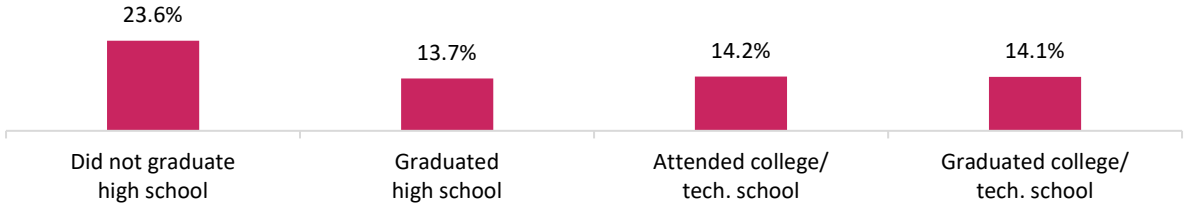


Figure 1.6. Percentage of Adults Ever Diagnosed with Diabetes by Annual Household Income

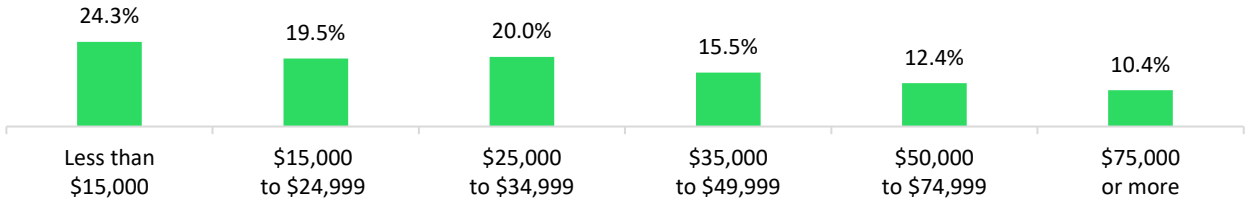


Figure 1.7. 2013-2022 Trend of Diabetes Prevalence

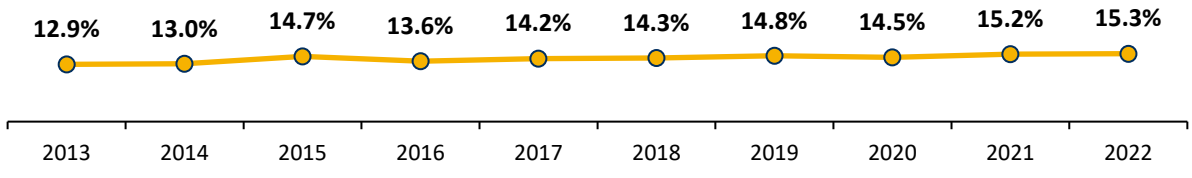


TABLE 1. Diabetes Q: Ever told by a doctor, nurse, or other health professional that you had diabetes?					
DEMOGRAPHIC GROUPS	RESPONDENTS		Yes		
	TOTAL	WEIGHTED	N(1)	%(2)	C.I. (95%)
TOTAL	4,226	2,261,076	702	15.3	(13.9-16.8)
Male	1,869	1,079,370	294	14.3	(12.4-16.2)
Female	2,357	1,181,706	408	16.3	(14.2-18.4)
White, Non-Hispanic (NH)	2,464	1,260,672	375	14.6	(12.7-16.4)
Black, Non-Hispanic (NH)	1,519	760,548	285	16.8	(14.5-19.2)
Other Races/Ethnicities	147	175,663	23	14.9	(7.9-21.8)
18-24 years	423	292,393	7	-	-
25-34 years	559	370,901	21	4.1	(2.0-6.1)
35-44 years	641	358,513	50	8.2	(5.3-11.0)
45-54 years	684	322,041	110	16.2	(12.8-19.7)
55-64 years	772	365,689	195	27.8	(23.3-32.4)
65+ years	1,095	513,121	312	26.7	(23.3-30.1)
Less than H.S.	391	325,882	102	23.6	(18.1-29.0)
H.S. or G.E.D.	1,094	681,195	188	13.7	(11.5-15.9)
Some Post-H.S.	1,320	770,897	204	14.2	(11.9-16.5)
College Graduate	1,408	474,348	206	14.1	(11.4-16.7)
Less than $15,000	295	164,832	68	24.3	(17.7-30.8)
$15,000-$24,999	477	254,666	106	19.5	(14.8-24.1)
$25,000-$34,999	539	305,404	109	20.0	(15.5-24.5)
$35,000-$49,999	560	292,972	98	15.5	(11.7-19.3)
$50,000-$74,999	557	293,152	79	12.4	(8.2-16.6)
$75,000+	1,005	506,327	118	10.4	(8.1-12.7)

(1) Unweighted number
(2) Weighted percent
Note: Denominator excludes respondents with do not know/refused/missing responses
Estimates with an unweighted denominator <50 or a relative standard error (RSE) > 30% are suppressed (indicated by dashes).

Current Insulin Use

Overall

- Approximately 1 in 3 adults (34.7%) with diabetes were currently taking insulin.

Sex (Figure 2.1)

- The percentage of currently taking insulin was **higher** among **men** (37.6%) compared to women (32.5%); however, the difference was **not statistically significant**.

Race/Ethnicity (Figure 2.2)

- The percentage of currently taking insulin was **higher** among **Black, NH adults** (37.2%) compared to White, NH adults (30.9%); however, the difference was **not statistically significant.** (Note: The percentage among adults of other races/ethnicities was suppressed due to low response.)

Age (Figure 2.3)

- There were **no significant differences** in the percentage of currently taking insulin among the examined age groups. (Note: The percentages among adults aged 18-24 years, 25-34 years, and 35-44 years were suppressed due to low response.)

Educational Attainment (Figure 2.4)

- There were **no significant differences** in the percentage of currently taking insulin among education level groups.

Annual Household Income (Figure 2.5)

- The percentage of currently taking insulin was **significantly higher** among adults whose annual household income was **$25,000 to $34,999** (45.1%) compared to adults who earned $75,000 or more (19.2%).

Trend (Figure 2.6)

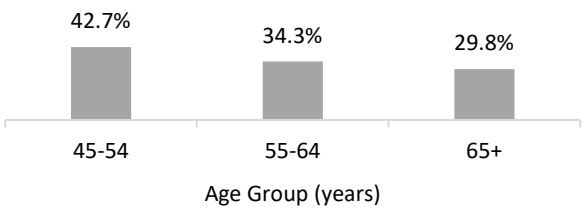
- The percentage of currently taking insulin among diabetic adults **increased** from 31.1% in 2014 to 34.7% in 2022. However, the difference in percentage is **not statistically significant**.

Figure 2.1. Percentage of Adults with Diabetes Who Currently Take Insulin by Sex

Figure 2.2. Percentage of Adults with Diabetes Who Currently Take Insulin by Race/Ethnicity

Note: Other race/ethnicity group suppressed due to low response.

Figure 2.3. Percentage of Adults with Diabetes Who Currently Take Insulin by Age



Note: 18-24, 25-34, and 35-44 years age groups suppressed due to low response.

Figure 2.4. Percentage of Adults with Diabetes Who Currently Take Insulin by Education Level

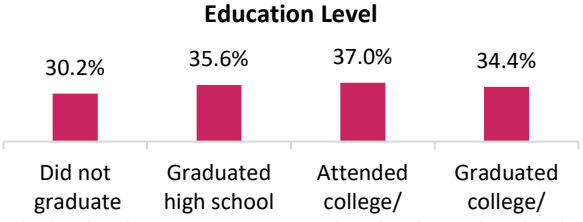


Figure 2.5. Percentage of Adults with Diabetes Who Currently Take Insulin by Annual Household Income

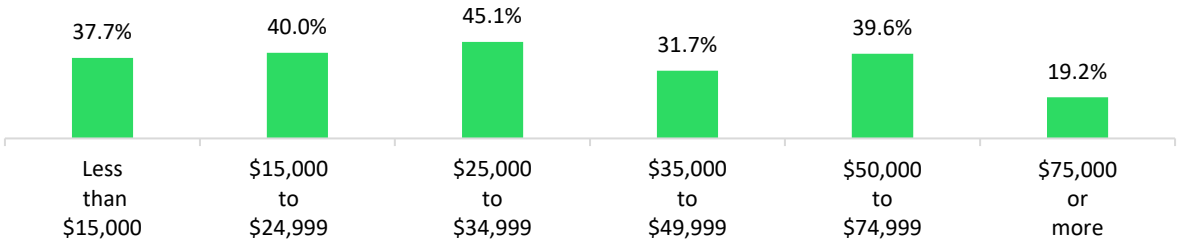


Figure 2.6. 2014-2022 Trend of Currently Taking Insulin Among Diabetic Adults

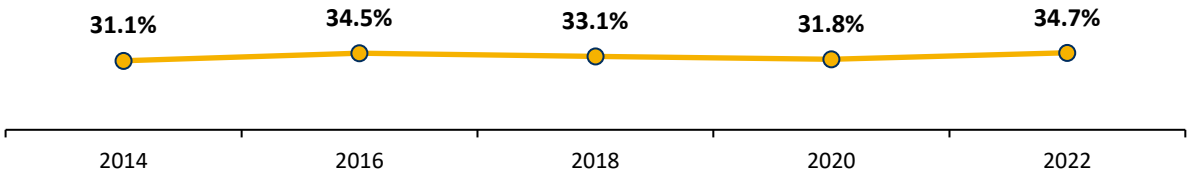


TABLE 2. Current Insulin Use
Q: Are you now taking insulin?

DEMOGRAPHIC GROUPS	RESPONDENTS		Yes		
	TOTAL	WEIGHTED	N(1)	%(2)	C.I. (95%)
TOTAL	681	333,892	225	34.7	(29.8-39.7)
Male	282	145,763	95	37.6	(30.4-44.7)
Female	399	188,128	130	32.5	(25.8-39.2)
White, Non-Hispanic (NH)	365	178,754	111	30.9	(24.6-37.2)
Black, Non-Hispanic (NH)	278	125,483	100	37.2	(29.8-44.6)
Other Races/Ethnicities	19	20,662	7	-	-
18-24 years	7	8,302	5	-	-
25-34 years	19	14,220	11	-	-
35-44 years	46	26,978	12	-	-
45-54 years	105	48,847	41	42.7	(30.6-54.9)
55-64 years	190	98,177	63	34.3	(25.2-43.5)
65+ years	307	134,202	92	29.8	(22.8-36.7)
Less than H.S.	95	69,355	32	30.2	(18.4-41.9)
H.S. or G.E.D.	184	91,706	62	35.6	(27.2-44.0)
Some Post-H.S.	203	108,849	72	37.0	(28.2-45.8)
College Graduate	197	63,441	58	34.4	(23.2-45.5)
Less than $15,000	65	38,482	26	37.7	(22.3-53.2)
$15,000-$24,999	101	45,043	43	40.0	(27.5-52.4)
$25,000-$34,999	108	60,822	37	45.1	(32.1-58.1)
$35,000-$49,999	96	44,538	28	31.7	(18.2-45.3)
$50,000-$74,999	78	35,878	30	39.6	(24.4-54.7)
$75,000+	114	50,998	22	19.2	(8.9-29.5)

(1) Unweighted number
(2) Weighted percent
Note: Denominator excludes respondents with do not know/refused/missing responses
Estimates with an unweighted denominator <50 or a relative standard error (RSE) > 30% are suppressed (indicated by dashes).

Blood Glucose Monitoring (A1C)

Overall

- Approximately 7 in 10 adults (70.7%) with diabetes had had their A1C checked two or more times in the past 12 months.

Sex (Figure 3.1)

- The percentage of having A1C checked 2+ times in the past year was **higher** among **men** (73.7%) compared to women (68.3%); however, the difference was **not statistically significant**.

Race/Ethnicity (Figure 3.2)

- The percentage of having A1C checked 2+ times in the past year was **higher** among **Black, NH adults** (73.7%) compared to White, NH adults (70.2%); however, the difference was **not statistically significant.** (Note: The percentage among adults of other races/ethnicities was suppressed due to low response.)

Age (Figure 3.3)

- There were **no significant differences** in the percentage of having A1C checked 2+ times in the past year among the examined age groups. (Note: The percentages among adults aged 18-24 years, 25-34 years, and 35-44 years were suppressed due to low response.)

Educational Attainment (Figure 3.4)

- The percentage of having A1C checked 2+ times in the past year was **significantly higher** among adults who completed **some college post-high school** (74.9%) compared to adults who did not complete high school (51.9%).

Annual Household Income (Figure 3.5)

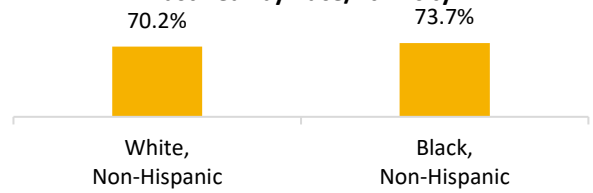
- The percentage of having A1C checked 2+ times in the past year was **highest** among adults whose annual household income was **$75,000 or more** (80.3%); however, there were **no statistically significant differences** in percentage among annual household income groups.

Trend (Figure 3.6)

- The percentage of having A1C checked 2+ times in the past year **decreased** from 73.9% in 2014 to 70.7% in 2022. However, the difference in percentage was **not statistically significant**.

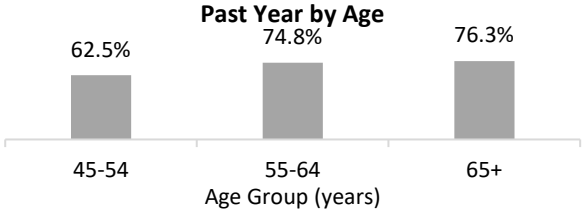
Figure 3.1. Percentage of Adults with Diabetes Who Had A1C Checked 2+ Times in Past Year by Sex

Figure 3.2. Percentage of Adults with Diabetes Who Had A1C Checked 2+ Times in Past Year by Race/Ethnicity



Note: Other race/ethnicity group suppressed due to low response.

Figure 3.3. Percentage of Adults with Diabetes Who Had A1C Checked 2+ Times in Past Year by Age



Note: 18-24, 25-34, and 35-44 years age groups suppressed due to low response.

Figure 3.4. Percentage of Adults with Diabetes Who Had A1C Checked 2+ Times in Past Year by Education Level

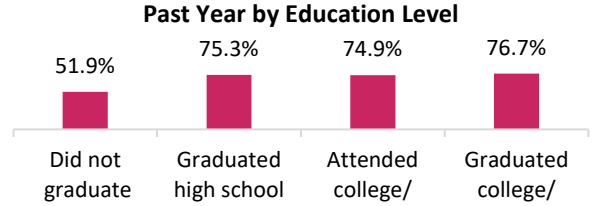


Figure 3.5. Percentage of Adults with Diabetes Who Had A1C Checked 2+ Times in Past Year by Annual Household Income

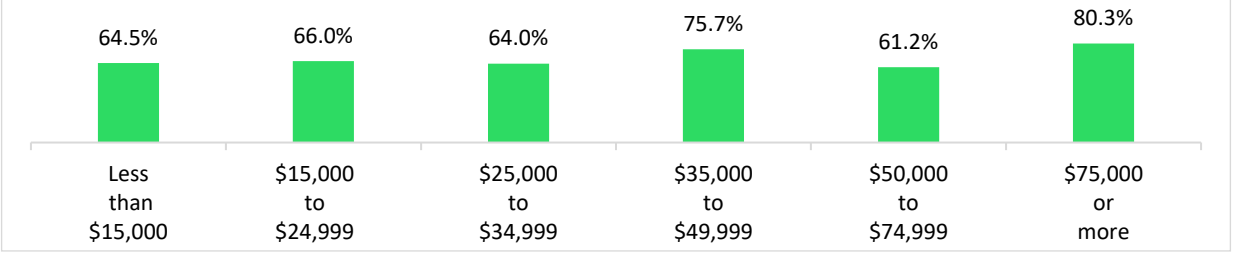


Figure 3.6. 2014-2022 Trend of Having A1C Checked 2+ Times in Past Year Among Diabetic Adults

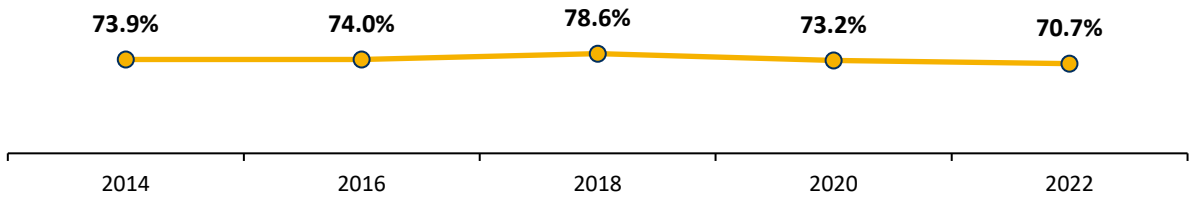


TABLE 3. A1C Checked 2+ Times in Past 12 Months
Q: About how many times in the past 12 months has a doctor, nurse, or other health professional checked you for A1C?

DEMOGRAPHIC GROUPS	RESPONDENTS		2 or more times		
	TOTAL	WEIGHTED	N(1)	%(2)	C.I. (95%)
TOTAL	615	303,226	453	70.7	(65.5-76.0)
Male	260	135,818	195	73.7	(67.0-80.5)
Female	355	167,408	258	68.3	(60.6-76.0)
White, Non-Hispanic (NH)	333	159,778	250	70.2	(62.6-77.9)
Black, Non-Hispanic (NH)	249	115,698	179	73.7	(67.3-80.1)
Other Races/Ethnicities	19	20,810	13	-	-
18-24 years	6	7,878	3	-	-
25-34 years	19	14,220	13	-	-
35-44 years	42	25,087	27	-	-
45-54 years	100	46,973	65	62.5	(50.2-74.8)
55-64 years	175	87,866	130	74.8	(64.6-84.9)
65+ years	270	119,748	212	76.3	(69.6-83.0)
Less than H.S.	77	61,165	44	51.9	(36.5-67.3)
H.S. or G.E.D.	159	79,247	120	75.3	(67.3-83.2)
Some Post-H.S.	190	101,463	142	74.9	(68.0-81.8)
College Graduate	188	61,100	146	76.7	(65.4-88.0)
Less than $15,000	60	35,325	43	64.5	(47.6-81.5)
$15,000-$24,999	86	39,756	56	66.0	(51.0-81.0)
$25,000-$34,999	98	56,056	65	64.0	(50.3-77.6)
$35,000-$49,999	87	38,832	64	75.7	(64.5-86.9)
$50,000-$74,999	75	35,287	57	61.2	(41.7-80.8)
$75,000+	108	48,455	86	80.3	(71.4-89.1)

(1) Unweighted number
(2) Weighted percent
Note: Denominator excludes respondents with do not know/refused/missing responses
Estimates with an unweighted denominator <50 or a relative standard error (RSE) > 30% are suppressed (indicated by dashes).

Eye Exam: Pupil Dilation

Overall

- Approximately 2 in 3 adults (65.9%) with diabetes had had an eye exam with pupil dilation in the past year.

Sex (Figure 4.1)

- The percentage of having an eye exam with pupil dilation in the past year was **higher** among **women** (70.4%) compared to men (60.1%); however, the difference was **not statistically significant**.

Race/Ethnicity (Figure 4.2)

- The percentage of having an eye exam with pupil dilation in the past year was **higher** among **Black, NH adults** (70.9%) compared to White, NH adults (64.3%); however, the difference was **not statistically significant.** (Note: The percentage among adults of other races/ethnicities was suppressed due to low response.)

Age (Figure 4.3)

- The percentage of having an eye exam with pupil dilation in the past year was **significantly higher** among adults aged **65+ years** (74.1%) compared to adults aged 45-54 years (51.3%). (Note: The percentages among adults aged 18-24 years, 25-34 years, and 35-44 years were suppressed due to low response.)

Educational Attainment (Figure 4.4)

- The percentage of having an eye exam with pupil dilation in the past year was **highest** among adults who **did not complete high school** (73.0%); however, there were **no statistically significant differences** in percentage among education level groups.

Annual Household Income (Figure 4.5)

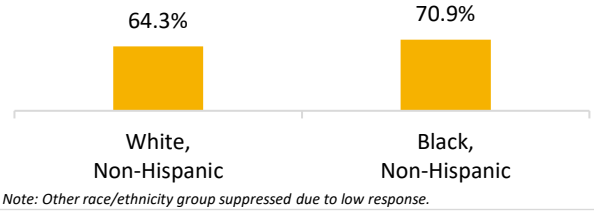
- The percentage of having an eye exam with pupil dilation in the past year was **highest** among adults whose annual household income was **less than $15,000** (73.2%); however, there were **no statistically significant differences** in percentage among annual household income groups.

Trend (Figure 4.6)

- The percentage of having an eye exam with pupil dilation in the past year **increased** from 64.7% in 2014 to 65.9% in 2022. However, the difference in percentage was **not statistically significant**.

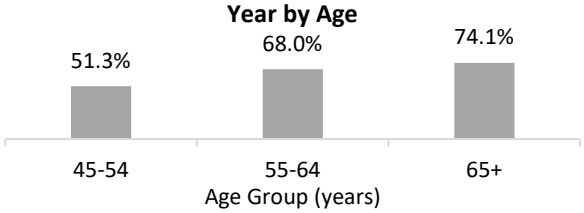
Figure 4.1. Percentage of Adults with Diabetes Who Had Pupil Dilation in Past Year by Sex

Figure 4.2. Percentage of Adults with Diabetes Who Had Pupil Dilation in Past Year by Race/Ethnicity



Note: Other race/ethnicity group suppressed due to low response.

Figure 4.3. Percentage of Adults with Diabetes Who Had Pupil Dilation in Past Year by Age



Note: 18-24, 25-34, and 35-44 years age groups suppressed due to low response.

Figure 4.4. Percentage of Adults with Diabetes Who Had Pupil Dilation in Past Year by Education Level

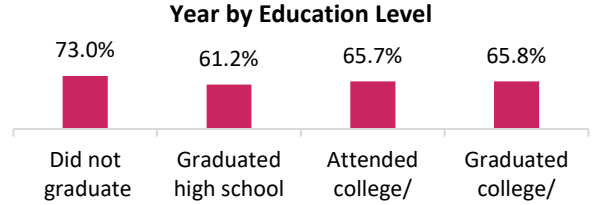


Figure 4.5. Percentage of Adults with Diabetes Who Had Pupil Dilation in Past Year by Annual Household Income

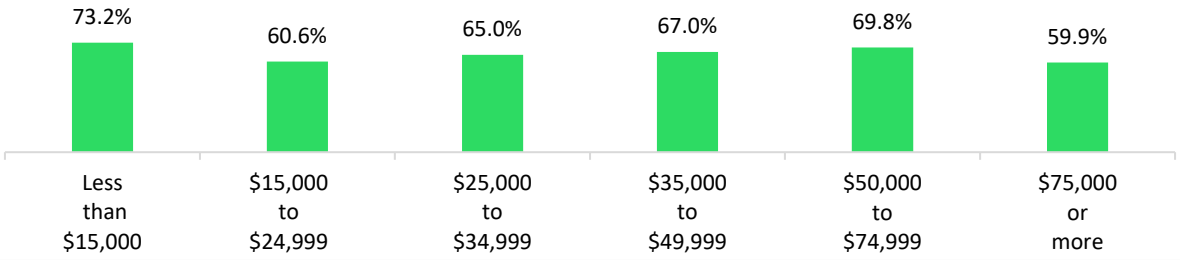


Figure 4.6. 2014-2022 Trend of Eye Exam with Pupil Dilation Among Diabetic Adults

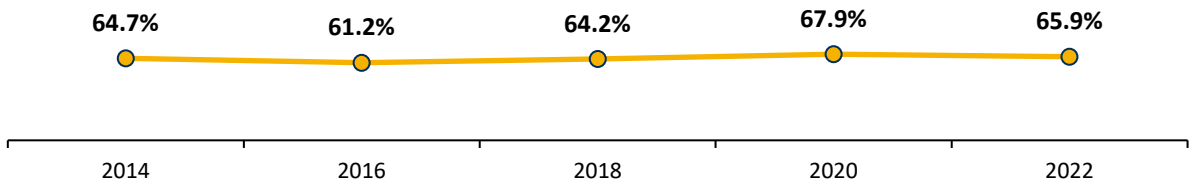


TABLE 4. Eye Exam with Pupil Dilation in Past Year
Q: When was the last time you had an eye exam in which the pupils were dilated, making you temporarily sensitive to bright light?

DEMOGRAPHIC GROUPS	RESPONDENTS		Within Past Year		
	TOTAL	WEIGHTED	N(1)	%(2)	C.I. (95%)
TOTAL	655	322,469	441	65.9	61.2-70.7
Male	270	141,278	172	60.1	52.7-67.6
Female	385	181,190	269	70.4	64.4-76.5
White, Non-Hispanic (NH)	350	171,933	226	64.3	57.8-70.8
Black, Non-Hispanic (NH)	266	120,186	193	70.9	63.7-78.0
Other Races/Ethnicities	20	21,357	11	-	-
18-24 years	6	7,878	3	-	-
25-34 years	18	12,973	9	-	-
35-44 years	44	24,857	25	-	-
45-54 years	105	48,847	59	51.3	39.2-63.3
55-64 years	182	94,732	121	68.0	59.4-76.7
65+ years	293	130,016	220	74.1	67.7-80.5
Less than H.S.	88	65,509	57	73.0	62.4-83.7
H.S. or G.E.D.	177	89,017	113	61.2	52.7-69.8
Some Post-H.S.	194	104,612	135	65.7	57.4-74.0
College Graduate	194	62,791	135	65.8	55.5-76.1
Less than $15,000	63	38,010	46	73.2	58.5-87.9
$15,000-$24,999	95	43,509	56	60.6	47.9-73.2
$25,000-$34,999	105	59,144	71	65.0	52.9-77.1
$35,000-$49,999	95	43,952	67	67.0	54.4-79.6
$50,000-$74,999	78	35,878	51	69.8	56.0-83.7
$75,000+	111	49,616	73	59.9	47.8-71.9

(1) Unweighted number
(2) Weighted percent
Note: Denominator excludes respondents with do not know/refused/missing responses
Estimates with an unweighted denominator <50 or a relative standard error (RSE) > 30% are suppressed (indicated by dashes).

Eye Exam: Retinal Photography

Overall

- Approximately 3 in 5 adults (61.6%) with diabetes had had an eye exam that included retinal photography (taking a photo of the back of their eye with a specialized camera) in the past year.

Sex (Figure 5.1)

- The percentage of having an eye exam with retinal photography in the past year was **higher** among **women** (64.3%) compared to men (58.2%); however, the difference was **not statistically significant**.

Race/Ethnicity (Figure 5.2)

- The percentage of having an eye exam with retinal photography in the past year was **higher** among **Black, NH adults** (70.7%) compared to White, NH adults (55.7%); however, the difference was **not statistically significant.** (Note: The percentage among adults of other races/ethnicities was suppressed due to low response.)

Age (Figure 5.3)

- The percentage of having an eye exam with retinal photography in the past year was **significantly higher** among adults aged **65+ years** (72.1%) compared to adults aged 45-54 years (51.8%). (Note: The percentages among adults aged 18-24 years, 25-34 years, and 35-44 years were suppressed due to low response.)

Educational Attainment (Figure 5.4)

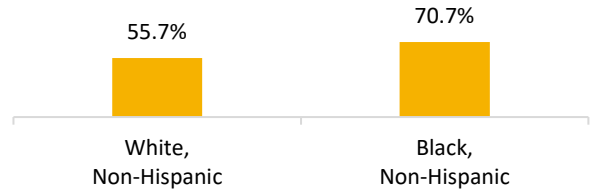
- The percentage of having an eye exam with retinal photography in the past year was **highest** among adults who **completed some college post-high school** (67.6%); however, there were **no statistically significant differences** in percentage among education level groups.

Annual Household Income (Figure 5.5)

- The percentage of having an eye exam with retinal photography in the past year was **highest** among adults whose annual household income was **$25,000 to $34,999** (70.5%); however, there were **no statistically significant differences** in percentage among annual household income groups.

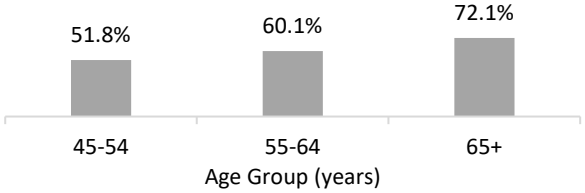
Figure 5.1. Percentage of Adults with Diabetes Who Had Retinal Photography in Past Year by Sex

Figure 5.2. Percentage of Adults with Diabetes Who Had Retinal Photography in Past Year by Race/Ethnicity



Note: Other race/ethnicity group suppressed due to low response.

Figure 5.3. Percentage of Adults with Diabetes Who Had Retinal Photography in Past Year by Age



Note: 18-24, 25-34, and 35-44 years age groups suppressed due to low response.

Figure 5.4. Percentage of Adults with Diabetes Who Had Retinal Photography in Past Year by Education Level

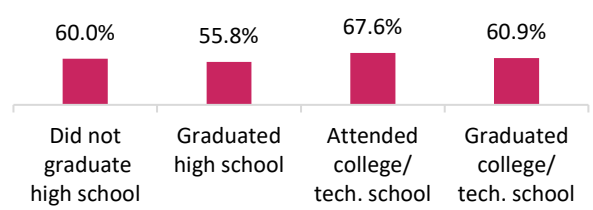


Figure 5.5. Percentage of Adults with Diabetes Who Had Retinal Photography in Past Year by Annual Household Income

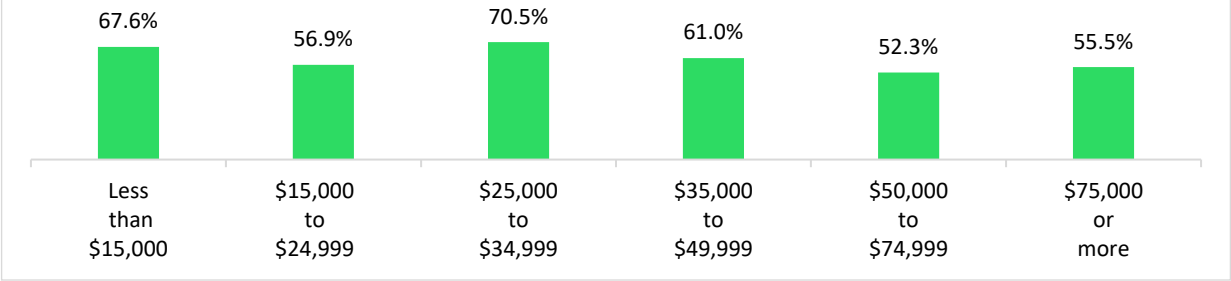


TABLE 5. Eye Exam with Retinal Photography in Past Year
Q: When was the last time a doctor, nurse, or other health professional took a photo of the back of your eye with a specialized camera?

DEMOGRAPHIC GROUPS	RESPONDENTS		Within Past Year		
	TOTAL	WEIGHTED	N(1)	%(2)	C.I. (95%)
TOTAL	574	282,824	365	61.6	(56.0-67.2)
Male	236	123,887	141	58.2	(50.1-66.3)
Female	338	158,936	224	64.3	(56.4-72.1)
White, Non-Hispanic (NH)	300	146,167	173	55.7	(47.8-63.6)
Black, Non-Hispanic (NH)	245	111,510	175	70.7	(63.2-78.2)
Other Races/Ethnicities	18	20,021	9	-	-
18-24 years	6	7,878	4	-	-
25-34 years	17	12,649	8	-	-
35-44 years	40	23,394	23	-	-
45-54 years	96	44,863	54	51.8	(39.0-64.5)
55-64 years	161	82,325	100	60.1	(49.1-71.1)
65+ years	250	110,039	174	72.1	(65.2-79.1)
Less than H.S.	78	60,001	51	60.0	(44.0-76.0)
H.S. or G.E.D.	147	72,164	83	55.8	(46.3-65.2)
Some Post-H.S.	175	93,729	122	67.6	(59.0-76.2)
College Graduate	172	56,391	108	60.9	(49.8-72.1)
Less than $15,000	56	33,070	41	67.6	(50.7-84.4)
$15,000-$24,999	90	41,060	53	56.9	(42.0-71.7)
$25,000-$34,999	91	51,569	60	70.5	(58.4-82.6)
$35,000-$49,999	79	33,658	53	61.0	(47.0-75.0)
$50,000-$74,999	69	32,327	39	52.3	(33.2-71.4)
$75,000+	99	44,028	60	55.5	(42.6-68.5)

(1) Unweighted number
(2) Weighted percent
Note: Denominator excludes respondents with do not know/refused/missing responses
Estimates with an unweighted denominator <50 or a relative standard error (RSE) > 30% are suppressed (indicated by dashes).

Education in Diabetes Self-Management

Overall

- Approximately 3 in 8 adults (37.7%) with diabetes had ever taken a course or class in how to manage their diabetes.

Sex (Figure 6.1)

- The percentage of receiving education on diabetes self-management was **similar** between **women** (37.9%) **and men** (37.5%); the difference in percentage was **not statistically significant**.

Race/Ethnicity (Figure 6.2)

- The percentage of receiving education on diabetes self-management was **higher** among **Black, NH adults** (41.1%) compared to White, NH adults (33.2%); however, the difference was **not statistically significant.** (Note: The percentage among adults of other races/ethnicities was suppressed due to low response.)

Age (Figure 6.3)

- The percentage of receiving education on diabetes self-management was **highest** among adults aged **55-64 years** (42.5%); however, there were **no statistically significant differences** in percentage among the examined age groups. (Note: The percentages among adults aged 18-24 years, 25-34 years, and 35-44 years were suppressed due to low response.)

Educational Attainment (Figure 6.4)

- The percentage of receiving education on diabetes self-management was **significantly lower** among adults who **did not graduate high school** (15.1%) compared to adults of all higher education levels.

Annual Household Income (Figure 6.5)

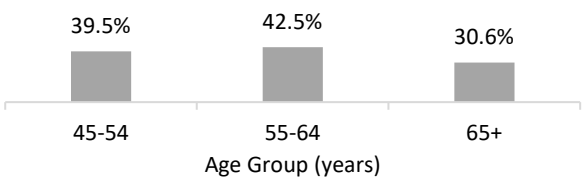
- The percentage of receiving education on diabetes self-management was **significantly higher** among adults whose annual household income was **$75,000 or more** (49.3%) compared to adults whose annual household income was $15,000 to $24,999 (24.9%).

Figure 6.1. Percentage of Adults with Diabetes Who Received Self-Management Education by Sex

Figure 6.2. Percentage of Adults with Diabetes Who Received Self-Management Education by Race/Ethnicity

Note: Other race/ethnicity group suppressed due to low response.

Figure 6.3. Percentage of Adults with Diabetes Who Received Self-Management Education by Age



Note: 18-24, 25-34, and 35-44 years age groups suppressed due to low response.

Figure 6.4. Percentage of Adults with Diabetes Who Received Self-Management Education by Education Level

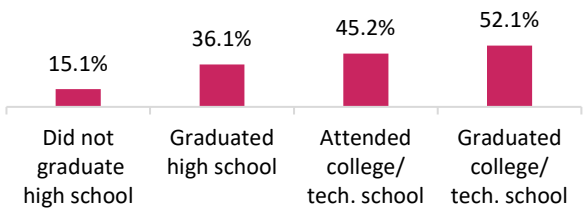


Figure 6.5. Percentage of Adults with Diabetes Who Received Self-Management Education by Annual Household Income

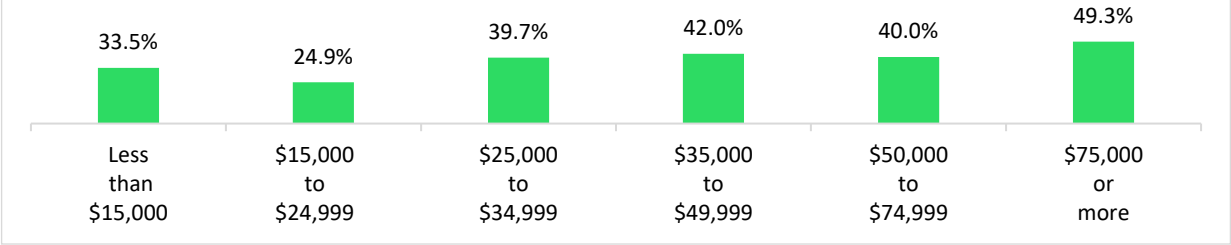


TABLE 6. Ever Received Education in Diabetes Self-Management
Q: When was the last time you took a course or class in how to manage your diabetes yourself?

DEMOGRAPHIC GROUPS	RESPONDENTS		Ever		
	TOTAL	WEIGHTED	N(1)	%(2)	C.I. (95%)
TOTAL	650	321,324	265	37.7	(32.6-42.8)
Male	271	140,178	111	37.5	(30.4-44.6)
Female	379	181,146	154	37.9	(30.9-44.9)
White, Non-Hispanic (NH)	350	172,305	129	33.2	(26.7-39.6)
Black, Non-Hispanic (NH)	263	119,730	120	41.1	(33.6-48.6)
Other Races/Ethnicities	19	20,810	9	-	-
18-24 years	7	8,302	5	-	-
25-34 years	19	14,220	6	-	-
35-44 years	45	27,069	25	-	-
45-54 years	99	46,074	42	39.5	(27.0-52.1)
55-64 years	181	95,613	82	42.5	(32.7-52.2)
65+ years	292	126,881	102	30.6	(23.9-37.4)
Less than H.S.	90	67,197	23	15.1	(8.2-22.1)
H.S. or G.E.D.	172	86,902	62	36.1	(27.5-44.8)
Some Post-H.S.	193	104,104	83	45.2	(36.0-54.5)
College Graduate	193	62,581	97	52.1	(41.6-62.7)
Less than $15,000	61	36,217	20	33.5	(17.9-49.1)
$15,000-$24,999	95	43,349	32	24.9	(15.0-34.8)
$25,000-$34,999	105	58,879	45	39.7	(26.5-52.8)
$35,000-$49,999	93	43,451	39	42.0	(27.9-56.2)
$50,000-$74,999	74	34,787	36	40.0	(23.9-56.0)
$75,000+	113	49,720	53	49.3	(37.5-61.1)

(1) Unweighted number
(2) Weighted percent
Note: Denominator excludes respondents with do not know/refused/missing responses
Estimates with an unweighted denominator <50 or a relative standard error (RSE) > 30% are suppressed (indicated by dashes).

Foot Sore Healing Time

Overall

- Approximately 1 in 13 adults (7.7%) with diabetes had ever had any sores or irritations on their feet that took more than 4 weeks to heal.

Sex (Figure 7.1)

- The percentage of having a foot sore that took more than 4 weeks to heal was **significantly higher** among **men** (11.4%) compared to women (4.8%).

Race/Ethnicity (Figure 7.2)

- The percentage of having a foot sore that took more than 4 weeks to heal was **higher** among **Black, NH adults** (9.6%) compared to White, NH adults (7.4%); however, the difference was **not statistically significant.** (Note: The percentage among adults of other races/ethnicities was suppressed due to low response.)

Age (Figure 7.3)

- The percentage of having a foot sore that took more than 4 weeks to heal was **highest** among adults aged **35-54 years** (9.9%); however, there were **no statistically significant differences** in percentage among the examined age groups. (Note: The percentage among adults aged 18-34 years was suppressed due to low response.)

Educational Attainment (Figure 7.4)

- The percentage of having a foot sore that took more than 4 weeks to heal was **higher** among adults whose highest level of education was **high school graduation or lower** (9.5%) compared to adults who completed some college or higher (6.0%). However, the difference in percentage was **not statistically significant**.

Annual Household Income

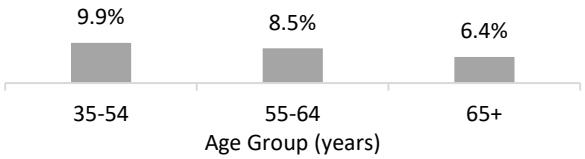
- The percentage of having a foot sore that took more than 4 weeks to heal was **10.2% among adults whose annual household income was less than $50,000.** (Note: The percentage among adults whose annual household income was $50,000 or higher was suppressed due to low response.)

Figure 7.1. Percentage of Adults with Diabetes and Foot Sores That Took More Than 4 Weeks to Heal by Sex

Figure 7.2. Percentage of Adults with Diabetes and Foot Sores That Took More Than 4 Weeks to Heal by Race/Ethnicity

Note: Other race/ethnicity group suppressed due to low response.

Figure 7.3. Percentage of Adults with Diabetes and Foot Sores That Took More Than 4 Weeks to Heal by Age



Note: 18-34 years age group suppressed due to low response.

Figure 7.4. Percentage of Adults with Diabetes and Foot Sores That Took More Than 4 Weeks by Education Level

TABLE 7. Ever Had Foot Sore That Took More Than 4 Weeks to Heal Q: Have you ever had any sores or irritations on your feet that took more than four weeks to heal?					
DEMOGRAPHIC GROUPS	RESPONDENTS		Yes		
	TOTAL	WEIGHTED	N(1)	%(2)	C.I. (95%)
TOTAL	680	332,694	61	7.7	(5.5-9.8)
Male	280	143,871	40	11.4	(7.4-15.4)
Female	400	188,823	21	4.8	(2.6-7.1)
White, Non-Hispanic (NH)	363	176,861	36	7.4	(4.6-10.2)
Black, Non-Hispanic (NH)	278	125,483	24	9.6	(5.5-13.8)
Other Races/Ethnicities	20	21,357	1	-	-
18-34 years	26	22,523	3	-	-
35-54 years	152	76,520	18	9.9	(5.0-14.9)
55-64 years	190	98,177	18	8.5	(3.9-13.1)
65+ years	305	132,310	22	6.4	(3.4-9.4)
H.S. or G.E.D. or less	277	159,169	31	9.5	(5.8-13.2)
Some Post-H.S. or more	401	172,985	30	6.0	(3.6-8.4)
Less than $50,000	369	187,688	43	10.2	(6.8-13.5)
$50,000+	192	86,876	8	-	-

(1) Unweighted number
(2) Weighted percent
Note: Denominator excludes respondents with do not know/refused/missing responses
Estimates with an unweighted denominator <50 or a relative standard error (RSE) > 30% are suppressed (indicated by dashes).

Diabetes and Health Care Access

CONSIDERATIONS

- When interpreting these results, it is important to keep in mind the existence of potential confounding factors, such as socioeconomic characteristics. For example, the percentage of diabetes is highest among older age groups, which also have lower rates of not having any health insurance.
- To help clarify the relationship between diabetes and health care access, we have included results of logistic regression analyses. The odds ratios presented below were adjusted by age, race, sex, education level, and annual household income.

NO HEALTH CARE COVERAGE

- The percentage of not having any health care coverage was **significantly lower** among **diabetic adults** (5.9%) compared to non-diabetic adults (10.9%).
- The odds of not having any health care coverage among diabetic adults are 0.6 (95% CI 0.3-1.1) times the odds for non-diabetic adults. In other words, the odds of not having any health care coverage are **decreased by 40%** for diabetics. This finding is **not statistically significant**.

NO ROUTINE CHECK-UP IN PAST YEAR

- The percentage of not having a routine check-up in the past year was **significantly lower** among **diabetic adults** (6.9%) compared to non-diabetic adults (22.2%).
- The odds of not having a routine check-up among diabetic adults are 0.4 (95% CI 0.2-0.6) times the odds for non-diabetic adults. The odds of not having a routine check-up are **decreased by 60%** for diabetic adults. This finding is **statistically significant**.

COULD NOT SEE DOCTOR DUE TO COST

- The percentage of not being able to see a doctor due to cost in the past year was **lower** among **diabetic adults** (13.7%) compared to non-diabetic adults (14.2%). However, the difference was **not statistically significant**.
- The odds of not being able to see a doctor due to cost among diabetic adults are 1.0 (95% CI 0.7-1.5) times the odds for non-diabetic adults. The odds of not being able to see a doctor due to cost are **the same** for diabetic adults compared to non-diabetic adults.

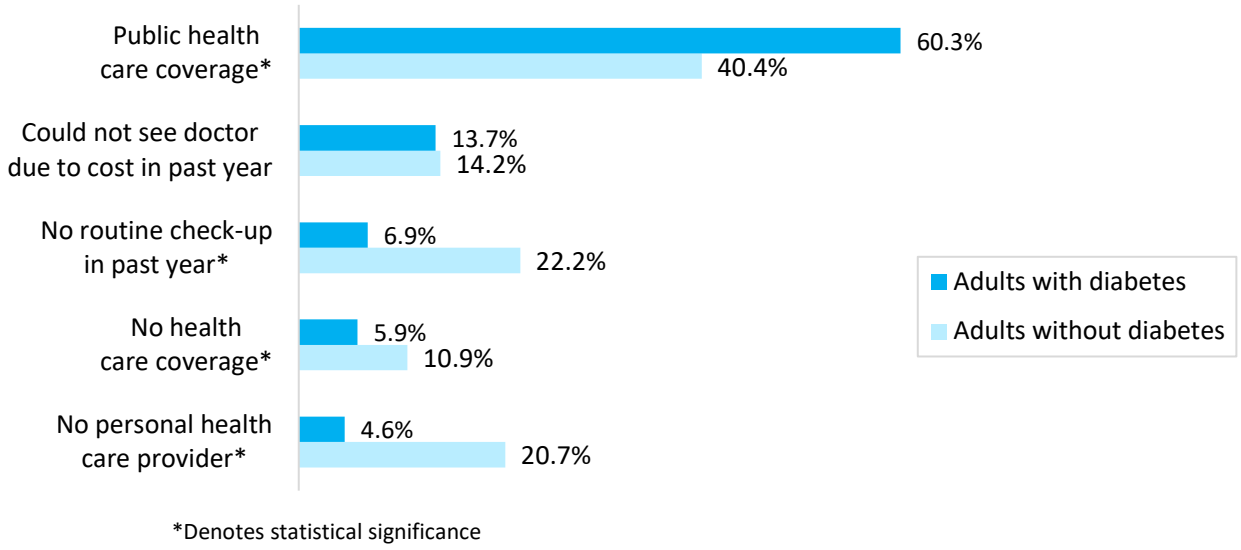
NO PERSONAL HEALTH CARE PROVIDER

- The percentage of not having a personal health care provider was **significantly lower** among **diabetic adults** (4.6%) compared to non-diabetic adults (20.7%).
- The odds of not having personal health care provider among diabetic adults are 0.3 (95% CI 0.2-0.5) times the odds for non-diabetic adults. The odds of not having personal health care provider are **decreased by 70%** for diabetic adults. This finding is **statistically significant**.

PUBLIC HEALTH CARE COVERAGE

- The percentage of having public health care coverage was **significantly higher** among **diabetic adults** (60.3%) compared to non-diabetic adults (40.4%).
- The odds of having public health care coverage among diabetic adults are 1.3 (95% CI 0.9-1.8) times the odds for non-diabetic adults. The odds of having public health care coverage are **increased by 30%** for diabetic adults. This finding is **not statistically significant**.

Figure 8.1 Health Care Access by Diabetes Status



*Denotes statistical significance

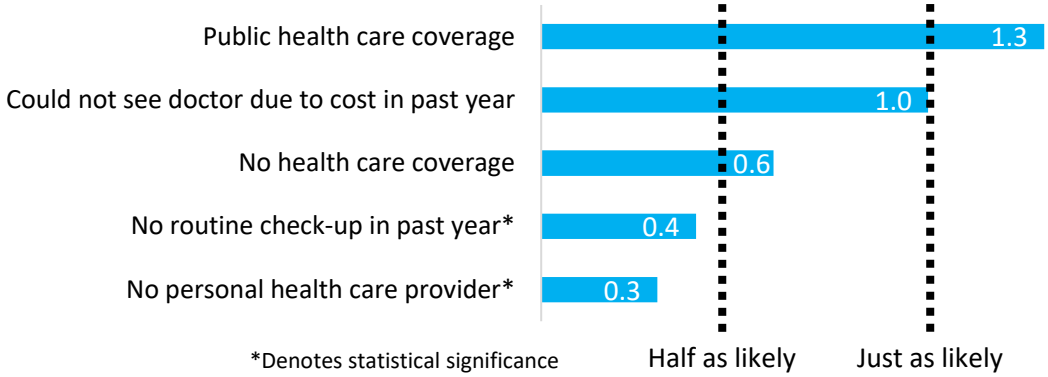
TABLE 8. Diabetes Status and Health Care Access

	RESPONDENTS		Adults with diabetes			Adults without diabetes		
	TOTAL	WEIGHTED	N(1)	%(2)	C.I. (95%)	N(1)	%(2)	C.I. (95%)
No health care coverage	340	215,745	29	5.9	3.4-8.4	311	10.9	9.4-12.5
No routine check-up in past year	751	437,605	44	6.9	4.6-9.3	707	22.2	20.4-24.0
Could not see doctor due to cost in past year	543	318,926	88	13.7	10.0-17.4	455	14.2	12.7-15.8
No personal health care provider	668	409,409	28	4.6	2.7-6.4	640	20.7	18.9-22.5
Public health care coverage	1,780	927,374	432	60.3	55.2-65.5	1,348	40.4	38.3-42.5

(1) Unweighted number
(2) Weighted percent
Note: Denominator excludes respondents with do not know/refused/missing responses

Figure 8.2. Adjusted Odds Ratios for Health Care Access Factors

Diabetic adults compared to baseline for non-diabetic adults



*Denotes statistical significance

Diabetes and Self-Reported Health Status

CONSIDERATIONS

- When interpreting these results, it is important to keep in mind the existence of potential confounding factors, such as socioeconomic characteristics. For example, the percentage of diabetes is highest among older age groups, which also have higher rates of self-reported fair or poor health.
- To help clarify the relationship between diabetes and self-reported health status, we have included results of logistic regression analyses. The odds ratios presented below were adjusted by age, race, sex, education level, and annual household income.

FAIR OR POOR HEALTH

- The percentage of fair or poor self-reported health was **significantly higher** among **diabetic adults** (51.8%) compared to non-diabetic adults (19.6%).
- The odds of having fair or poor self-reported health among diabetic adults are 3.3 (95% CI 2.6-4.4) times the odds for non-diabetic adults. In other words, the odds of having fair or poor health are **increased by 230%** for diabetic adults. This finding was **statistically significant**.

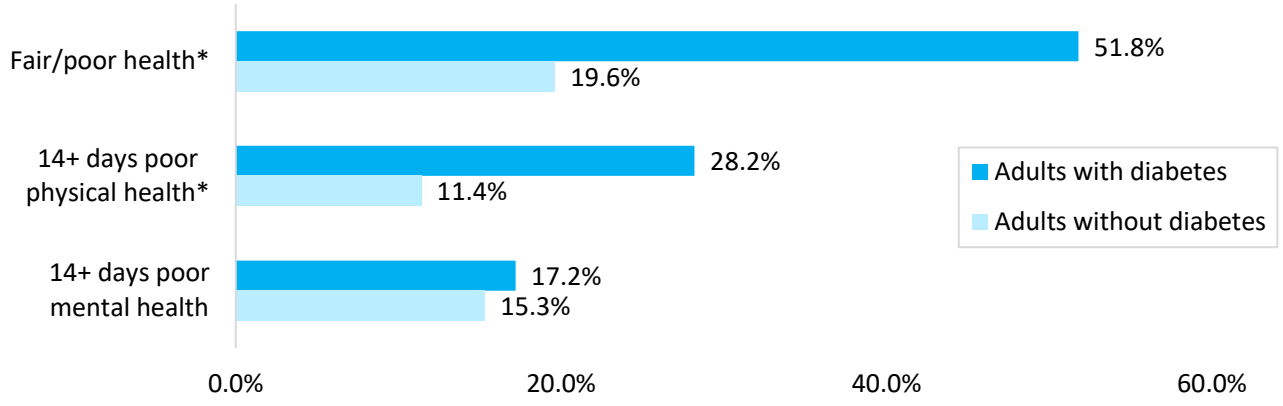
POOR PHYSICAL HEALTH

- The percentage of having 14+ poor physical health days was **significantly higher** among **diabetic adults** (28.2%) compared to non-diabetic adults (11.4%).
- The odds of having 14 days or more of poor physical health in the past 30 days among diabetic adults are 2.1 (95% CI 1.5-2.9) times the odds for non-diabetic adults. The odds of having 14 days or more of poor physical health in the past 30 days are **increased by 110%** for diabetic adults. This finding was **statistically significant**.

POOR MENTAL HEALTH

- The percentage of having 14+ poor mental health days was **higher** among **diabetic adults** (17.2%) compared to non-diabetic adults (15.3%). However, the difference was **not statistically significant**.
- The odds of having 14 days or more of poor mental health in the past 30 days among diabetic adults are 1.4 (95% CI 1.0-1.9) times the odds for non-diabetic adults. The odds of having 14 days or more of poor mental health in the past 30 days are **increased by 40%** for diabetic adults. This finding was **not statistically significant**.

Figure 9.1. Self-Reported Health Status by Diabetes Status



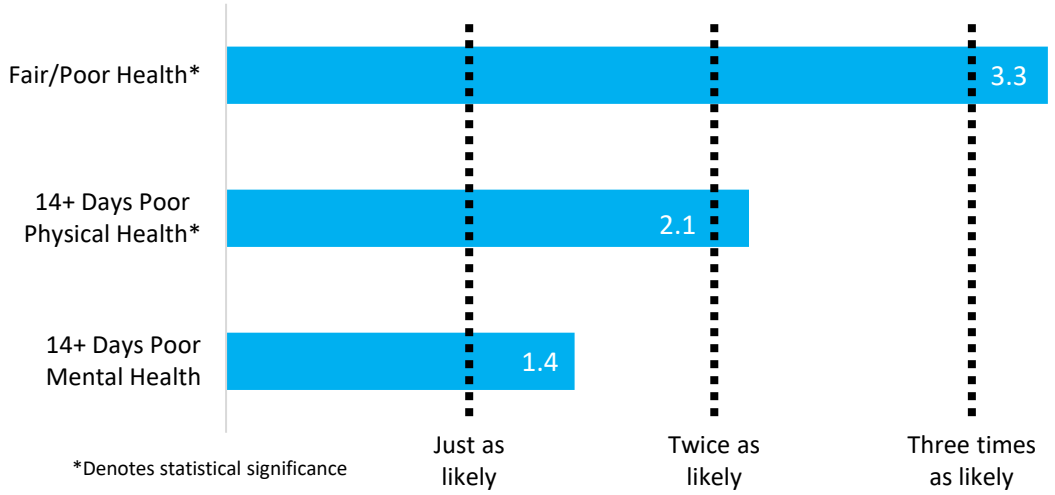
*Denotes statistical significance

TABLE 9. Diabetes Status and Self-Reported Health Status								
	RESPONDENTS		Adults with diabetes			Adults without diabetes		
	TOTAL	WEIGHTED	N(1)	%(2)	C.I. (95%)	N(1)	%(2)	C.I. (95%)
Fair or poor health	991	553,708	348	51.8	46.7-56.8	643	19.6	17.9-21.4
14+ days poor physical health	565	305,615	188	28.2	23.6-32.8	377	11.4	10.0-12.8
14+ days poor mental health	608	343,145	117	17.2	13.7-20.7	491	15.3	13.7-16.9

(1) Unweighted number
(2) Weighted percent
Note: Denominator excludes respondents with do not know/refused/missing responses

Figure 9.2. Adjusted Odds Ratios for Health Status Factors

Diabetic adults compared to baseline for non-diabetic adults



Diabetes and Other Health Conditions

CONSIDERATIONS

- When interpreting these results, it is important to keep in mind the existence of potential confounding factors, such as socioeconomic characteristics. For example, the percentage of diabetes is highest among older groups, which also have higher rates of many of the examined health conditions.
- To help clarify the relationship between diabetes and health conditions, we have included results of logistic regression analyses. The odds ratios presented below were adjusted by age, race, sex, education level, and annual household income.

ARTHRITIS

- The percentage of having arthritis was **significantly higher** among **diabetic adults** (57.1%) compared to non-diabetic adults (29.7%).
- The odds of having arthritis among diabetic adults are 1.7 (95% CI 1.3-2.2) times the odds for non-diabetic adults. In other words, the odds of having arthritis are **increased by 70%** for diabetic adults. This finding was **statistically significant**.

CANCER

- The percentage of having cancer was **significantly higher** among **diabetic adults** (17.9%) compared to non-diabetic adults (9.9%).
- The odds of ever having any type of cancer among diabetic adults are 1.3 (95% CI 1.0-1.8) times the odds for non-diabetic adults. The odds of having cancer are **increased by 30%** for diabetic adults. This finding was **not statistically significant**.

CARDIOVASCULAR DISEASE (CVD)

- The percentage of having CVD was **significantly higher** among **diabetic adults** (28.7%) compared to non-diabetic adults (9.2%).
- The odds of having CVD among diabetic adults are 2.3 (95% CI 1.7-3.1) times the odds for non-diabetic adults. The odds of having CVD are **increased by 130%** for diabetic adults. This finding was **statistically significant**.

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

- The percentage of having COPD was **significantly higher** among **diabetic adults** (23.1%) compared to non-diabetic adults (8.2%).
- The odds of ever having COPD among diabetic adults are 2.2 (95% CI 1.5-3.1) times the odds for non-diabetic adults. The odds of ever having COPD are **increased by 120%** for diabetic adults. This finding was **statistically significant**.

COVID-19

- The percentage of ever testing positive for COVID-19 was **higher** among **diabetic adults** (45.8%) compared to non-diabetic adults (39.9%). However, the difference was **not statistically significant**.
- The odds of ever testing positive for COVID-19 among diabetic adults are 1.8 (95% CI 1.4-2.3) times the odds for non-diabetic adults. The odds of ever testing positive for COVID-19 are **increased by 80%** for diabetic adults. This finding was **statistically significant**.

DEPRESSION

- The percentage of ever having depression was **significantly higher** among **diabetic adults** (28.0%) compared to non-diabetic adults (19.1%).
- The odds of ever having depression among diabetic adults are 2.0 (95% CI 1.5-2.7) times the odds for non-diabetic adults. The odds of ever having depression are **increased by 100%** for diabetic adults. This finding was **statistically significant**.

DISABILITY

- The percentage of having a disability was **significantly higher** among **diabetic adults** (60.8%) compared to non-diabetic adults (33.7%).
- The odds of disability among diabetic adults are 2.1 (95% CI 1.6-2.8) times the odds for non-diabetic adults. The odds of disability are **increased by 110%** for diabetic adults. This finding was **statistically significant**.

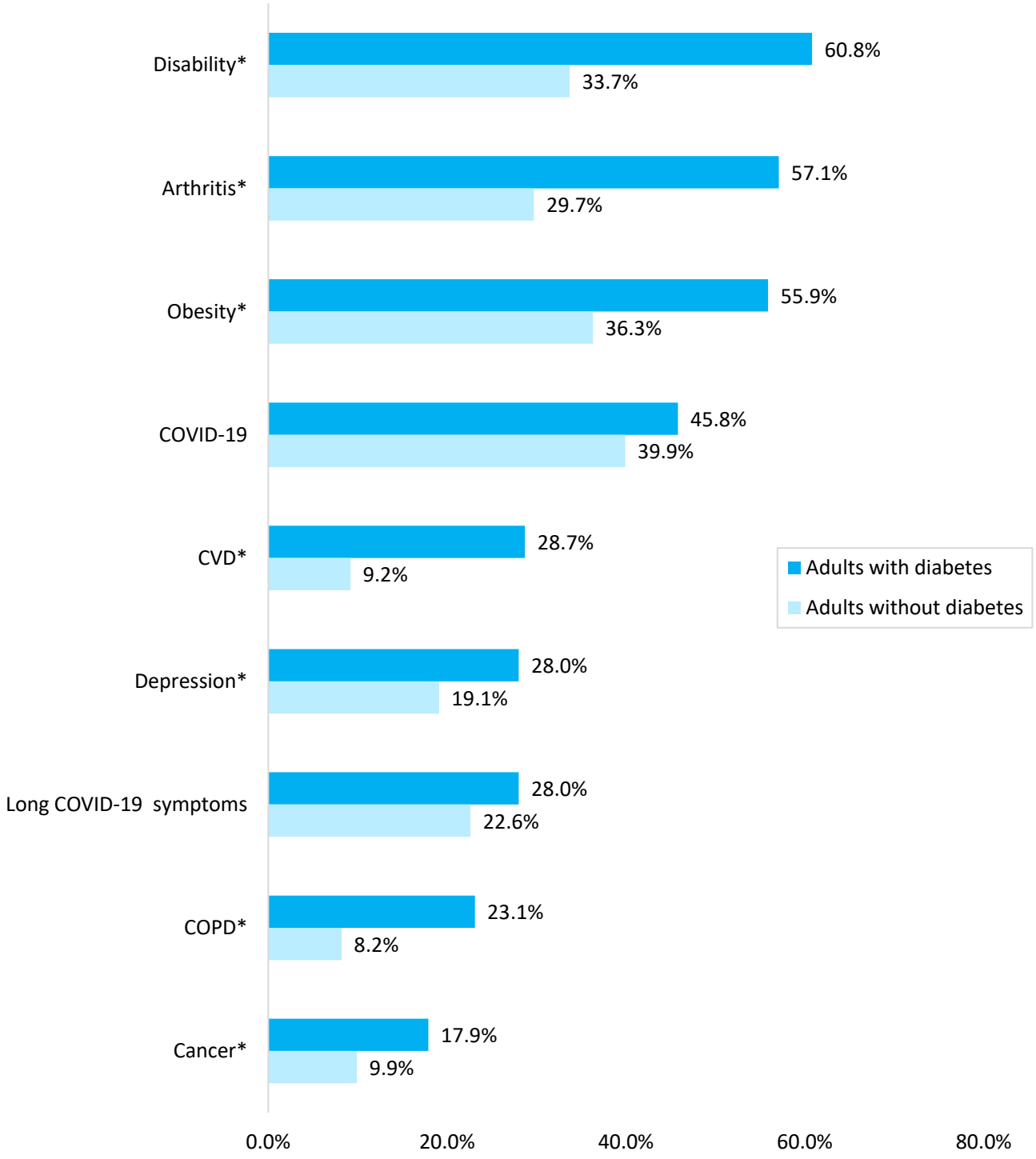
LONG COVID-19 SYMPTOMS

- The percentage of having long COVID-19 symptoms was **higher** among **diabetic adults** (28.0%) compared to non-diabetic adults (22.6%). However, the difference was **not statistically significant**.
- The odds of ever having long COVID-19 symptoms among diabetic adults are 1.2 (95% CI 0.8-1.9) times the odds for non-diabetic adults. The odds of ever having long COVID-19 symptoms are **increased by 20%** for diabetic adults. This finding was **not statistically significant**.

OBESITY

- The percentage of obesity was **significantly higher** among **diabetic adults** (55.9%) compared to non-diabetic adults (36.3%).
- The odds of obesity among diabetic adults are 2.3 (95% CI 1.8-3.0) times the odds for non-diabetic adults. The odds of obesity are **increased by 130%** for diabetic adults. This finding was **statistically significant**.

Figure 10.1. Health Conditions by Diabetes Status

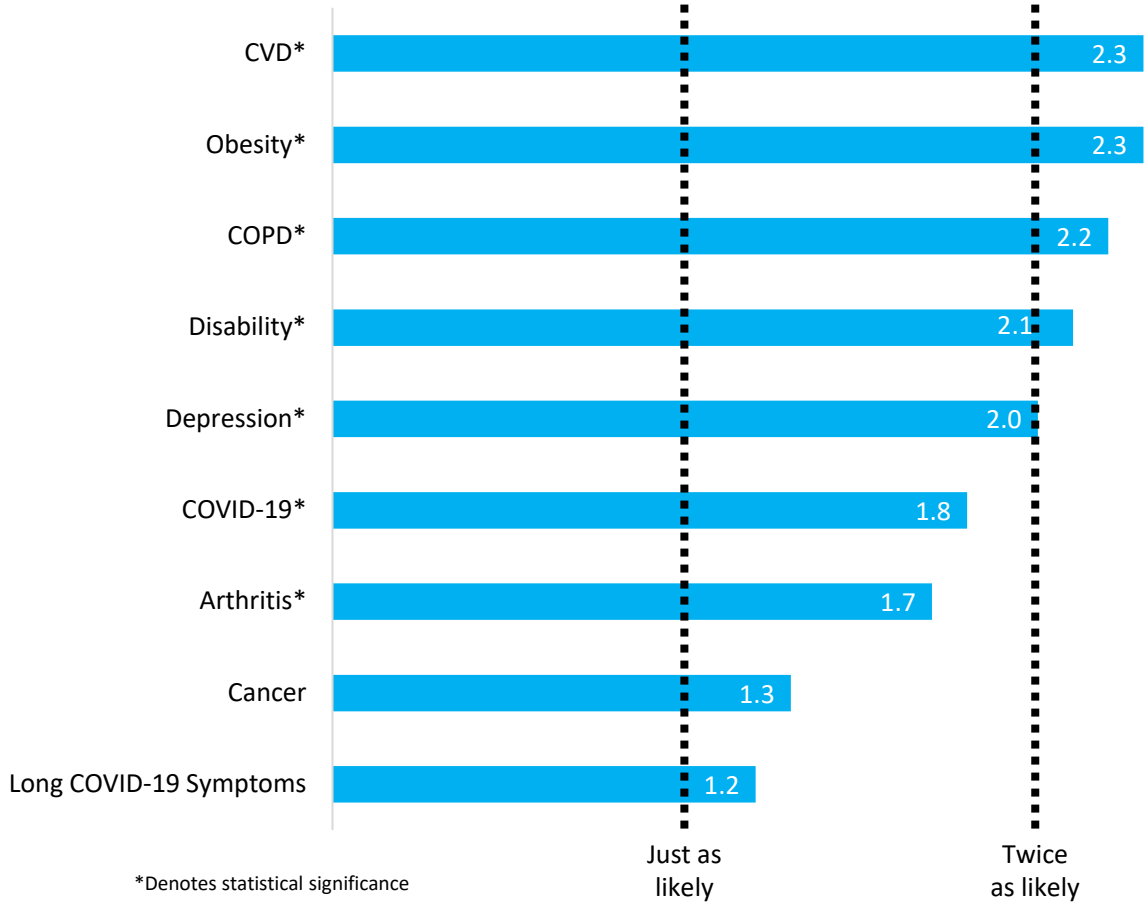


*Denotes statistical significance

TABLE 10. Diabetes Status and Health Conditions								
	RESPONDENTS		Adults with diabetes			Adults without diabetes		
	TOTAL	WEIGHTED	N(1)	%(2)	C.I. (95%)	N(1)	%(2)	C.I. (95%)
Arthritis	1,481	760,496	395	57.1	52.1-62.1	1,086	29.7	27.7-31.7
Cancer	512	250,108	123	17.9	14.2-21.6	389	9.9	8.6-11.2
Cardiovascular Disease (CVD)	522	271,628	205	28.7	24.3-33.1	317	9.2	7.9-10.5
Chronic Obstructive Pulmonary Disease (COPD)	393	236,370	119	23.1	18.1-28.1	274	8.2	7.0-9.4
COVID-19	1,603	854,445	277	45.8	40.5-51.1	1,326	39.9	37.8-42.0
Depression	841	458,637	185	28.0	23.5-32.5	656	19.1	17.4-20.7
Disability	1,535	819,928	402	60.8	55.8-65.8	113	33.7	31.6-35.7
Long COVID-19 Symptoms	373	197,165	77	28.0	21.1-34.9	296	22.6	19.7-25.4
Obesity	1,616	816,207	369	55.9	50.8-61.1	1,247	36.3	34.3-38.4

(1) Unweighted number
(2) Weighted percent
Note: Denominator excludes respondents with do not know/refused/missing responses

Figure 10.2. Adjusted Odds Ratios for Health Conditions
Diabetic adults compared to baseline for non-diabetic adults



Diabetes and Health Risk Behaviors

CONSIDERATIONS

- When interpreting these results, it is important to keep in mind the existence of potential confounding factors, such as socioeconomic characteristics. For example, the percentage of diabetes is highest among older age groups, which may also have lower rates of some of the examined health risk behaviors.
- To help clarify the relationship between diabetes and health risk behaviors, we have included results of logistic regression analyses. The odds ratios presented below were adjusted by age, race, sex, education level, and annual household income.

CURRENT CIGARETTE SMOKING

- The percentage of current cigarette smoking was **higher** among **diabetic adults** (18.8%) compared to non-diabetic adults (17.2%). However, the difference was **not statistically significant**.
- The odds of current cigarette smoking among diabetic adults are 0.9 (95% CI 0.6-1.3) times the odds for non-diabetic adults. In other words, the odds of current cigarette smoking are **decreased by 10%** for diabetic adults. This finding was **not statistically significant**.

CURRENT E-CIGARETTE USE

- The percentage of current e-cigarette use was **significantly lower** among **diabetic adults** (3.6%) compared to non-diabetic adults (10.4%).
- The odds of current e-cigarette use among diabetic adults are 0.7 (95% CI 0.4-1.3) times the odds for non-diabetic adults. The odds of current e-cigarette use are **decreased by 30%** for diabetic adults. This finding was **not statistically significant**.

HIV RISK BEHAVIORS

- The percentage of HIV risk behaviors was **significantly lower** among **diabetic adults** (3.1%) compared to non-diabetic adults (7.6%).
- The odds of HIV risk behaviors among diabetic adults are 0.9 (95% CI 0.5-1.6) times the odds for non-diabetic adults. The odds of HIV risk behaviors are **decreased by 10%** for diabetic adults. This finding was **not statistically significant**.

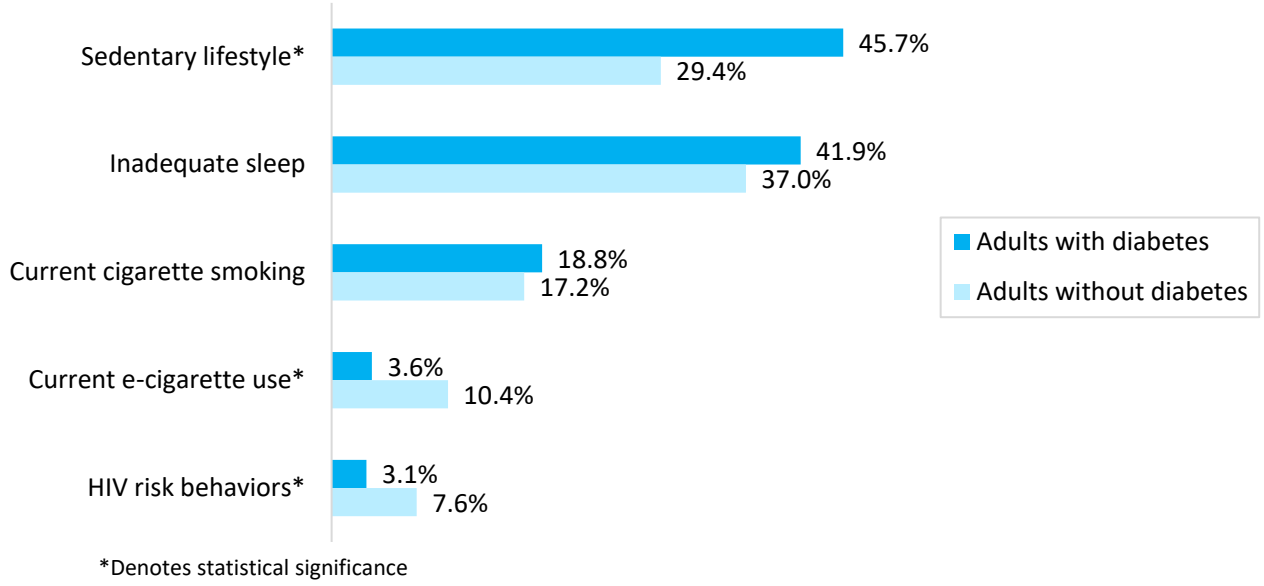
INADEQUATE SLEEP

- The percentage of having inadequate sleep was **higher** among **diabetic adults** (41.9%) compared to non-diabetic adults (37.0%). However, the difference was **not statistically significant**.
- The odds of having inadequate sleep among diabetic adults are 1.3 (95% CI 1.02-1.67) times the odds for non-diabetic adults. The odds of having inadequate sleep are **increased by 30%** for diabetic adults. This finding was **statistically significant**.

SEDENTARY LIFESTYLE

- The percentage of having a sedentary lifestyle was **significantly higher** among **diabetic adults** (45.7%) compared to non-diabetic adults (29.4%).
- The odds of having a sedentary lifestyle among diabetic adults are 1.4 (95% CI 1.1-1.8) times the odds for non-diabetic adults. The odds of having a sedentary lifestyle are **increased by 40%** for diabetic adults. This finding was **statistically significant**.

Figure 11.1. Health Risk Behaviors by Diabetes Status



*Denotes statistical significance

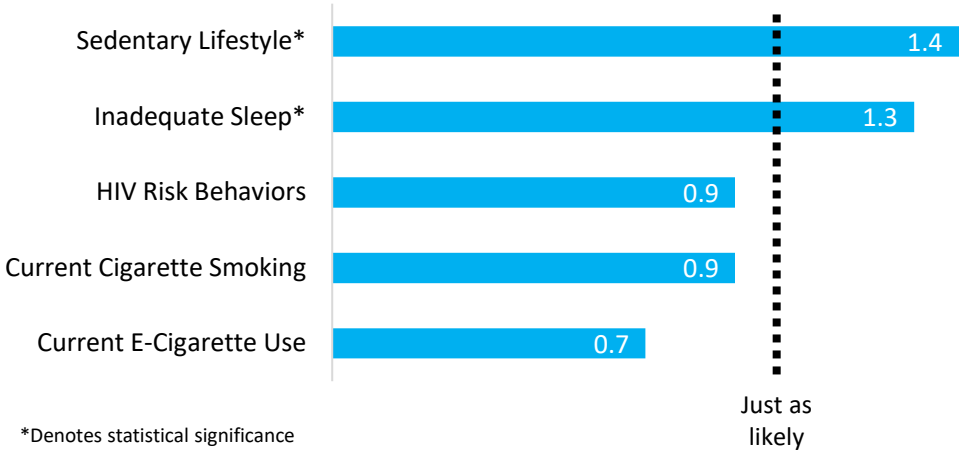
TABLE 11. Diabetes Status and Health Risk Behaviors

	RESPONDENTS		Adults with diabetes			Adults without diabetes		
	TOTAL	WEIGHTED	N(1)	%(2)	C.I. (95%)	N(1)	%(2)	C.I. (95%)
Current cigarette smoking	634	371,889	96	18.8	14.2-23.5	538	17.2	15.5-18.9
Current e-cigarette use	317	202,130	20	3.6	1.8-5.5	297	10.4	9.1-11.8
HIV risk behaviors	222	143,704	18	3.1	1.5-4.7	204	7.6	6.3-8.8
Inadequate sleep	1,531	838,505	259	41.9	36.7-47.1	1,272	37.0	34.9-39.1
Sedentary lifestyle	1,315	720,425	298	45.7	40.6-50.8	1,017	29.4	27.5-31.4

(1) Unweighted number
(2) Weighted percent
Note: Denominator excludes respondents with do not know/refused/missing responses

Figure 11.2. Adjusted Odds Ratios for Health Risk Behaviors

Diabetic adults compared to baseline for non-diabetic adults



*Denotes statistical significance

Diabetes and Social Determinants of Health

CONSIDERATIONS

- When interpreting these results, it is important to keep in mind the existence of potential confounding factors, such as socioeconomic characteristics. For example, the percentage of diabetes is highest among older age groups, which may also have lower rates of some of the examined social determinants.
- To help clarify the relationship between diabetes and social determinants of health, we have included results of logistic regression analyses. The odds ratios presented below were adjusted by age, race, sex, education level, and annual household income.

DISSATISFACTION WITH LIFE

- The percentage of being dissatisfied with life was **higher** among **diabetic adults** (7.0%) compared to non-diabetic adults (6.3%). However, the difference was **not statistically significant**.
- The odds of being dissatisfied with life among diabetic adults are 1.2 (95% CI 0.7-1.9) times the odds for non-diabetic adults. In other words, the odds of being dissatisfied with life are **increased by 20%** for diabetic adults. This finding was **not statistically significant**.

LACK OF SOCIAL AND EMOTIONAL SUPPORT

- The percentage of sometimes, rarely, or never getting needed social and emotional support was **higher** among **diabetic adults** (33.9%) compared to non-diabetic adults (31.1%). However, the difference was **not statistically significant**.
- The odds of sometimes, rarely, or never getting needed social and emotional support among diabetic adults are 1.1 (95% CI 0.8-1.4) times the odds for non-diabetic adults. The odds of sometimes, rarely, or never getting needed social and emotional support are **increased by 10%** for diabetic adults. This finding was **not statistically significant**.

SOCIAL ISOLATION

- The percentage of always, usually, or sometimes feeling socially isolated from others was **lower** among **diabetic adults** (31.5%) compared to non-diabetic adults (34.2%). However, the difference was **not statistically significant**.
- The odds of always, usually, or sometimes feeling socially isolated from others among diabetic adults are 1.0 (95% CI 0.8-1.3) times the odds for non-diabetic adults. The odds of always, usually, or sometimes feeling socially isolated from others are **the same** for diabetic adults and non-diabetic adults.

LOST EMPLOYMENT/REDUCED HOURS

- The percentage of experiencing lost employment or reduced hours was **significantly lower** among **diabetic adults** (6.2%) compared to non-diabetic adults (11.4%).
- The odds of experiencing lost employment or reduced hours among diabetic adults are 0.7 (95% CI 0.4-1.2) times the odds for non-diabetic adults. The odds of experiencing lost employment or reduced hours are **decreased by 30%** for diabetic adults. This finding was **not statistically significant**.

RECEIVING FOOD STAMPS/SNAP

- The percentage of receiving food stamps/SNAP was **higher** among **diabetic adults** (14.4%) compared to non-diabetic adults (12.3%). However, the difference was **not statistically significant**.
- The odds of receiving food stamps/SNAP among diabetic adults are 0.9 (95% CI 0.6-1.3) times the odds for non-diabetic adults. The odds of receiving food stamps/SNAP are **decreased by 10%** for diabetic adults. This finding was **not statistically significant**.

FOOD INSECURITY

- The percentage of experiencing food insecurity was **higher** among **diabetic adults** (26.4%) compared to non-diabetic adults (20.1%). However, the difference was **not statistically significant**.
- The odds of experiencing food insecurity among diabetic adults are 1.1 (95% CI 0.8-1.6) times the odds for non-diabetic adults. The odds of experiencing food insecurity are **increased by 10%** for diabetic adults. This finding was **not statistically significant**.

HOUSING INSECURITY

- The percentage of experiencing housing insecurity was **higher** among **diabetic adults** (16.3%) compared to non-diabetic adults (14.4%). However, the difference was **not statistically significant**.
- The odds of experiencing housing insecurity among diabetic adults are 1.1 (95% CI 0.8-1.5) times the odds for non-diabetic adults. The odds of experiencing housing insecurity are **increased by 10%** for diabetic adults. This finding was **not statistically significant**.

THREATENED UTILITIES

- The percentage of experiencing threatened utilities was **higher** among **diabetic adults** (11.8%) compared to non-diabetic adults (9.3%). However, the difference was **not statistically significant**.
- The odds of experiencing threatened utilities among diabetic adults are 1.3 (95% CI 0.9-1.9) times the odds for non-diabetic adults. The odds of experiencing threatened utilities are **increased by 30%** for diabetic adults. This finding was **not statistically significant**.

LACK OF RELIABLE TRANSPORTATION

- The percentage of experiencing a lack of reliable transportation was **higher** among **diabetic adults** (11.2%) compared to non-diabetic adults (10.0%). However, the difference was **not statistically significant**.
- The odds of having a lack of reliable transportation among diabetic adults are 1.0 (95% CI 0.7-1.5) times the odds for non-diabetic adults. The odds of having a lack of reliable transportation are **the same** for diabetic adults and non-diabetic adults.

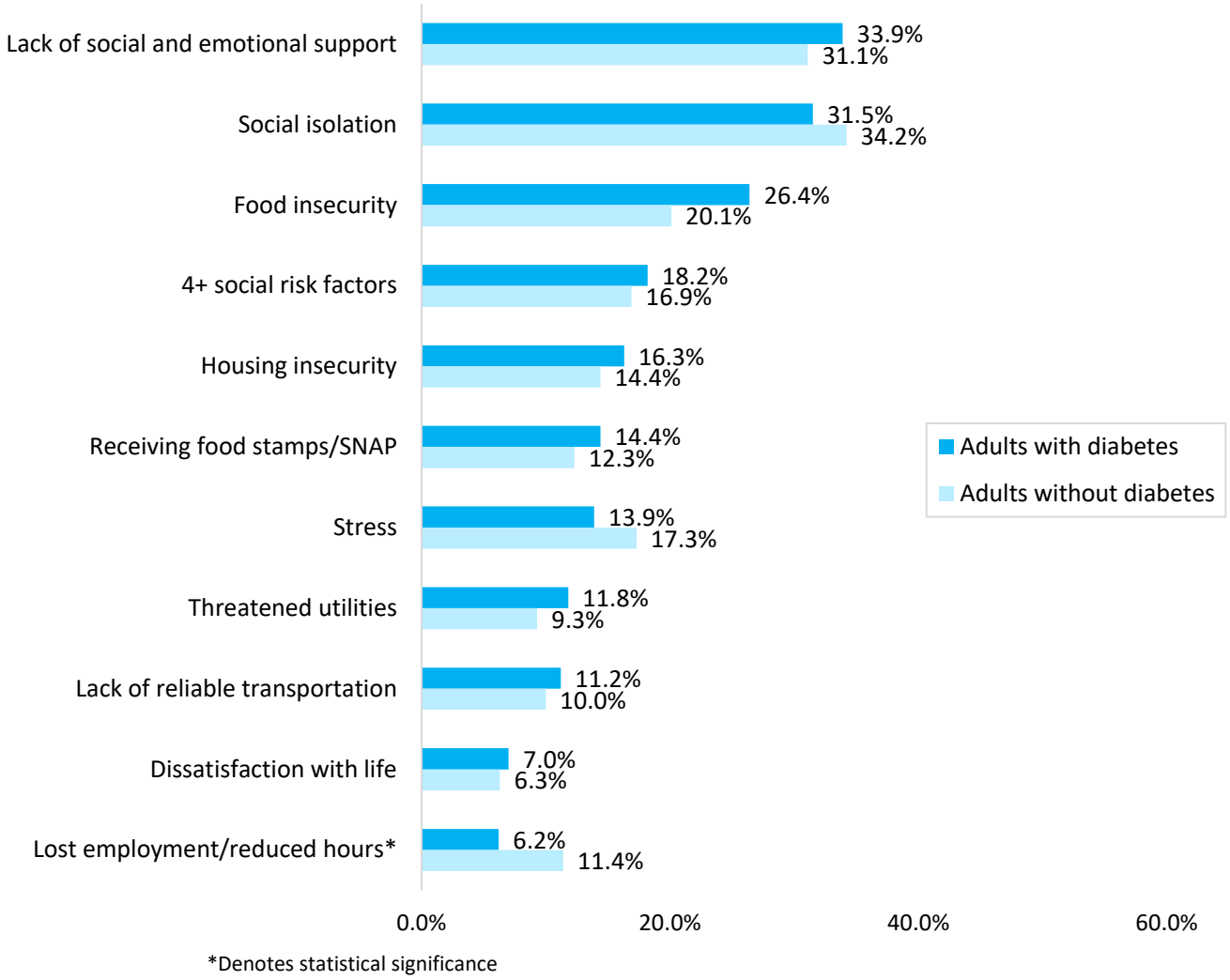
STRESS

- The percentage of always or usually feeling stress in the past 30 days was **lower** among **diabetic adults** (13.9%) compared to non-diabetic adults (17.3%). However, the difference was **not statistically significant**.
- The odds of always or usually feeling stress in the past 30 days among diabetic adults are 1.0 (95% CI 0.7-1.4) times the odds for non-diabetic adults. The odds of always or usually feeling stress in the past 30 days are **the same** for diabetic adults and non-diabetic adults.

EXPERIENCING 4 OR MORE SOCIAL RISK FACTORS

- The percentage of experiencing four or more social risk factors was **higher** among **diabetic adults** (18.2%) compared to non-diabetic adults (16.9%). However, the difference was **not statistically significant**.
- The odds of experiencing four or more social risk factors among diabetic adults are 1.0 (95% CI 0.7-1.5) times the odds for non-diabetic adults. The odds of experiencing four or more social risk factors are **the same** for diabetic adults and non-diabetic adults.

Figure 12.1. Social Determinants of Health by Diabetes Status



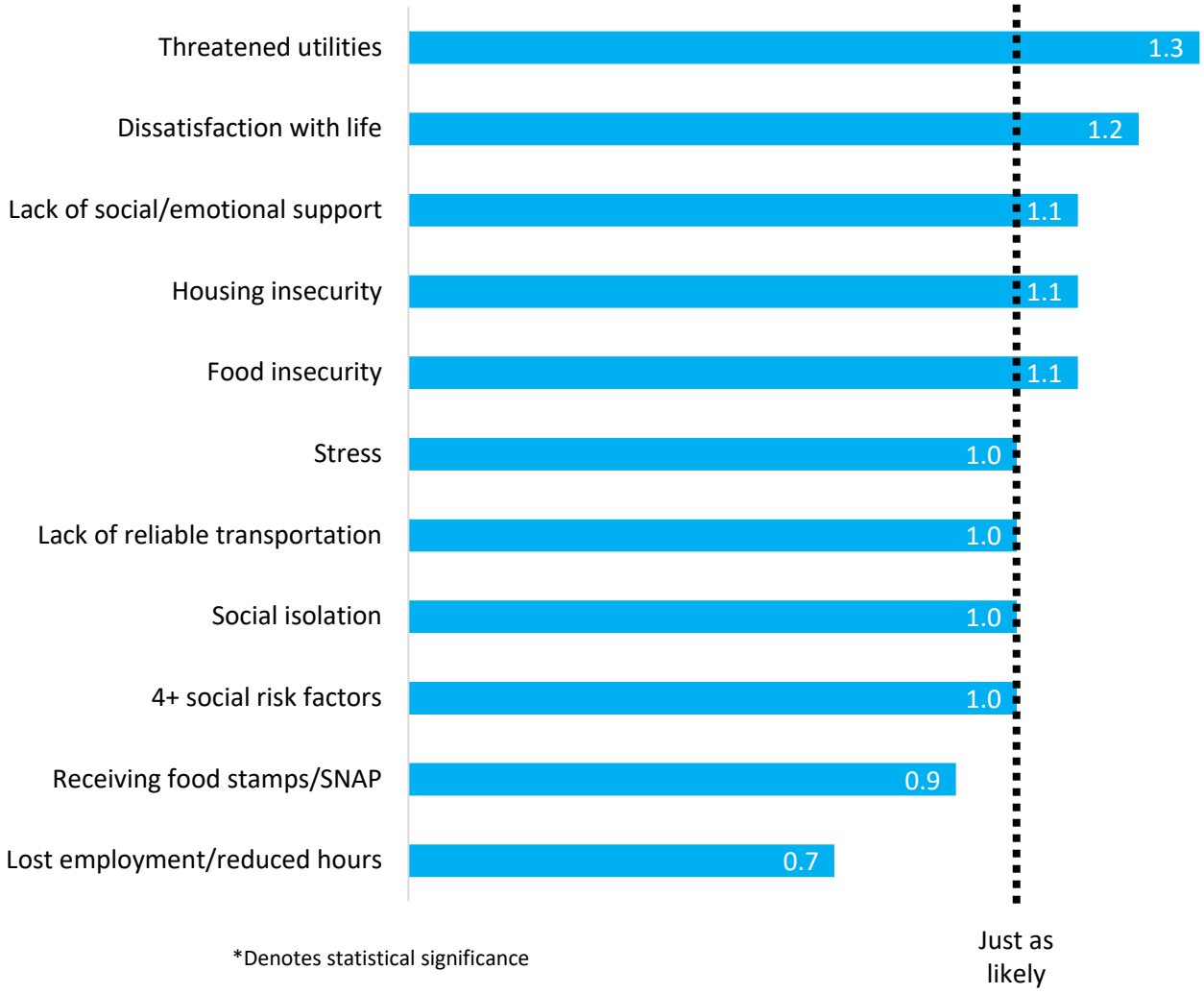
*Denotes statistical significance

TABLE 12. Diabetes Status and Social Determinants of Health

	RESPONDENTS		Adults with diabetes			Adults without diabetes		
	TOTAL	WEIGHTED	N(1)	%(2)	C.I. (95%)	N(1)	%(2)	C.I. (95%)
Dissatisfaction with life	206	124,325	45	7.0	4.7-9.4	161	6.3	5.0-7.5
Lack of social and emotional support	1,079	611,320	198	33.9	28.6-39.2	881	31.1	28.9-33.3
Social isolation	1,200	654,805	195	31.5	26.6-36.3	1,005	34.2	32.0-36.4
Lost employment or reduced hours	353	205,609	33	6.2	3.5-8.9	320	11.4	10.0-12.8
Receiving food stamps/SNAP	467	247,207	91	14.4	10.7-18.2	376	12.3	10.8-13.9
Food insecurity	729	408,951	159	26.4	21.9-30.9	570	20.1	18.2-22.0
Housing insecurity	523	284,742	105	16.3	12.6-20.1	418	14.4	12.8-16.0
Threatened utilities	331	187,098	68	11.8	8.4-15.3	263	9.3	7.9-10.6
Lack of reliable transportation	353	197,124	67	11.2	8.1-14.3	286	10.0	8.6-11.3
Stress	573	322,487	88	13.9	10.6-17.3	485	17.3	15.5-19.0
Experiencing 4+ social risk factors	555	317,278	101	18.2	14.2-22.3	454	16.9	15.1-18.7

(1) Unweighted number
(2) Weighted percent
Note: Denominator excludes respondents with do not know/refused/missing responses

Figure 12.2. Adjusted Odds Ratios for Social Risk Factors
Diabetic adults compared to baseline for non-diabetic adults



*Denotes statistical significance