GLP-1 Injectable Use Among Adults With Diagnosed Diabetes: United States, 2024

Anjel Vahratian, Ph.D., M.P.H., and Antonia Warren, M.S.

Key findings

Data from the National Health Interview Survey

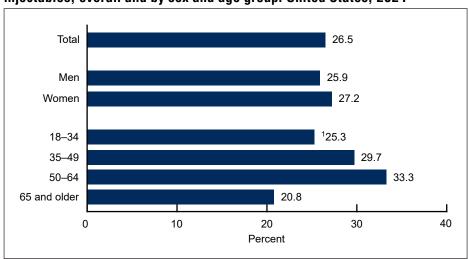
- In 2024, the percentage of adults with diagnosed diabetes who used glucagon-like peptide-1 (GLP-1) injectables was 26.5%; use increased with age between adults ages 18–34 (25.3%) to 50–64 (33.3%) and then decreased among those age 65 and older (20.8%).
- Hispanic (31.3%), Black non-Hispanic (26.5%), and White non-Hispanic (26.2%) adults with diagnosed diabetes were more likely than Asian non-Hispanic adults with diagnosed diabetes (12.1%) to use GLP-1 injectables.
- GLP-1 injectable use was higher among those with greater body mass index.
- Among adults with diagnosed diabetes, those who took insulin (31.3%) or oral glucose-lowering medications (28.1%) were more likely to use GLP-1 injectables compared with those who did not take those diabetic medications (24.5% and 22.2%, respectively).

Glucagon-like peptide-1 (GLP-1) receptor agonists are a type of drug that mimics a hormone in the body which helps to lower blood sugar and support weight loss (1). GLP-1 medications are typically administered as an injection to treat type 2 diabetes (1). This report describes the percentage of adults with diagnosed diabetes who were taking an injectable GLP-1 medication at the time of interview by selected characteristics, based on data from the 2024 National Health Interview Survey (NHIS). Survey respondents were assumed to be using a GLP-1 injectable if they had diabetes and reported use of an injectable medication other than insulin to lower blood sugar or lose weight.

GLP-1 injectable use was similar among men and women but varied by age group.

In 2024, more than one in four adults with diagnosed diabetes used GLP-1 injectables (26.5%) (Figure 1, Table 1). No significant difference was seen in the use of GLP-1 injectables between women (27.2%) and men (25.9%).

Figure 1. Percentage of adults with diagnosed diabetes who used GLP-1 injectables, overall and by sex and age group: United States, 2024



 1 Significant quadratic trend by age (p < 0.05). Pairwise tests indicate significant differences between those ages 35–49 and 50–64 compared with those age 65 and older.

NOTES: The total percentage of 26.5% is equal to an estimated 6.9 million adults with diagnosed diabetes who used glucagon-like peptide-1 (GLP-1) injectables in 2024. Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population.



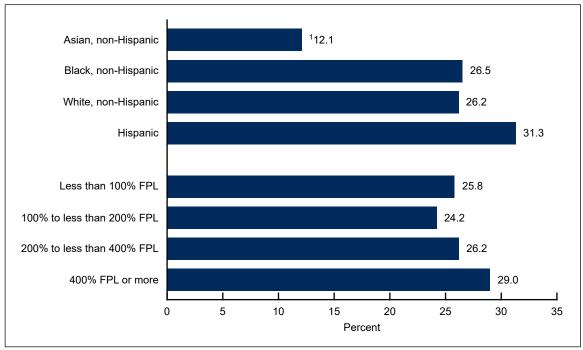
The percentage of adults with diagnosed diabetes who used GLP-1 injectables increased with age from 18–34 (25.3%) to 50–64 (33.3%) and then decreased among those age 65 and older (20.8%).

GLP-1 injectable use varied by race and Hispanic origin.

Nearly one in three Hispanic adults with diagnosed diabetes used GLP-1 injectables (31.3%) (Figure 2, Table 2). Hispanic adults, Black non-Hispanic (subsequently, Black) adults (26.5%), and White non-Hispanic (subsequently, White) adults (26.2%) with diagnosed diabetes were more likely than Asian non-Hispanic (subsequently, Asian) adults with diagnosed diabetes (12.1%) to use GLP-1 injectables.

The percentage of adults with diagnosed diabetes who used GLP-1 injectables ranged from 24.2% among those with family incomes from 100% to less than 200% of the federal poverty level (FPL) to 29.0% among those with family incomes at 400% FPL or more. However, differences in GLP-1 injectable use across family income were not significant.

Figure 2. Percentage of adults with diagnosed diabetes who used GLP-1 injectables, by race and Hispanic origin and family income: United States, 2024



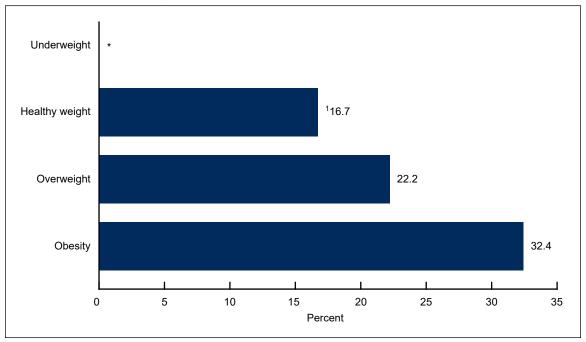
¹Significantly lower than Black non-Hispanic, White non-Hispanic, and Hispanic adults with diagnosed diabetes (*p* < 0.05).

NOTES: GLP-1 is glucagon-like peptide-1. Categories shown for non-Hispanic adults are for those who selected only one racial group. Adults categorized as Hispanic may be of any race or combination of races. FPL is federal poverty level. Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population.

GLP-1 injectable use varied by body mass index.

GLP-1 injectable use was associated with higher body mass index (BMI) levels, from 16.7% among adults with diagnosed diabetes who had a healthy weight to 32.4% among those who had obesity (Figure 3, Table 3). The estimate for underweight did not meet NCHS standards of reliability.

Figure 3. Percentage of adults with diagnosed diabetes who used GLP-1 injectables, by body mass index: United States, 2024



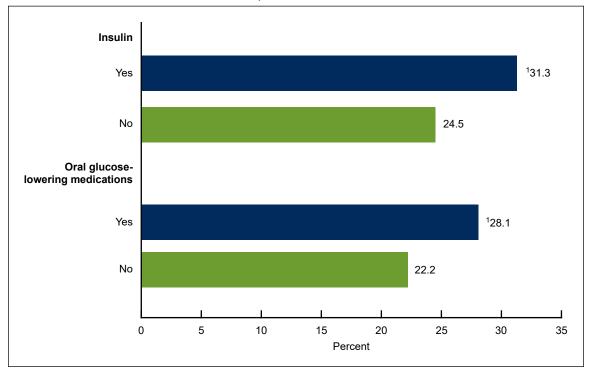
^{*} Estimate does not meet National Center for Health Statistics standards of reliability.

Significant increasing linear test of trend (p < 0.05). NOTES: GLP-1 is glucagon-like peptide-1. Underweight is a body mass index (BMI) of less than 18.5 kg/m². Healthy weight is BMI of 18.5 to less than 25.0 kg/m². Overweight is BMI of 25.0 to less than 30.0 kg/m². Obesity is BMI of 30.0 kg/m² or more. Estimates are based on household interviews of a sample of the U.S civilian noninstitutionalized population.

GLP-1 injectable use varied by concurrent use of diabetic medications.

Nearly one in three adults with diagnosed diabetes who reported taking insulin (31.3%) also used GLP-1 injectables (Figure 4, Table 4). More than one in four adults with diagnosed diabetes who took oral glucose-lowering medications (28.1%) also used GLP-1 injectables. GLP-1 injectable use was higher among those who took insulin or oral glucose-lowering medications compared with those who did not take those diabetic medications (24.5% and 22.2%, respectively).

Figure 4. Percentage of adults with diagnosed diabetes who used GLP-1 injectables, by diabetes medication status: United States, 2024



¹Significantly different from adults with diagnosed diabetes who did not take that medication (*p* < 0.05).

NOTES: GLP-1 is glucagon-like peptide-1. Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population.

SOURCE: National Center for Health Statistics, National Health Interview Survey, 2024.

Summary

In 2024, 26.5% of adults with diagnosed diabetes used GLP-1 injectables to lower blood sugar or lose weight. One in three adults ages 50–64 (33.3%) used GLP-1 injectables, and use was more common among adults with higher BMIs. In recent years, public awareness and use of GLP-1 medications has rapidly grown (2,3). An analysis of data from the Medical Expenditure Panel Survey showed a 155% increase in the percentage of adults with type 2 diabetes who used GLP-1 injectables from 2018 (7.6%) to 2022 (19.4%) (2). Concurrently, spending on GLP-1 medications increased by more than 500% from 2018 to 2023, based on data from retail and mail-order prescription fills (4).

Definitions

<u>Body mass index (BMI)</u>: Based on responses to the following two survey questions: "How tall are you without shoes?" and "How much do you weigh?" Data from these two questions are used to compute a BMI measure in kilograms divided by meters squared. BMI classifications are: underweight, BMI less than 18.5; healthy weight, BMI of 18.5 to less than 25.0; overweight, BMI of 25.0 to less than 30.0; and obesity, BMI of 30.0 or more (5).

Glucagon-like peptide-1 (GLP-1) injectable use: Based on a yes response to the survey question, "Other than insulin, are you taking any injectable medications to lower your blood sugar or lose weight?" The survey included the following statement that could be read by interviewers if needed: "These medications include GLP-1 injectables, such as Ozempic, Wegovy, Saxenda, Victoza, Trulicity, Mounjaro, and Byetta."

Race and ethnicity: Adults categorized as Hispanic may be of any race or combination of races. Non-Hispanic adults categorized as Asian, Black, or White indicated one race only. Estimates for non-Hispanic adults of races other than Asian, Black, and White are not shown due to the inability to make statistically reliable estimates for these groups, but they are included in total estimates.

Data source and methods

Data from the 2024 NHIS were used for this analysis. NHIS is a nationally representative household survey of the U.S. civilian noninstitutionalized population. It is conducted continuously throughout the year by the National Center for Health Statistics. Interviews are typically initiated face-to-face in respondents' homes, but follow-ups to complete interviews may be conducted over the telephone (6). For more information on the survey, visit the NHIS website: https://www.cdc.gov/nchs/nhis/index.htm.

Point estimates and the corresponding confidence intervals for this analysis were calculated using SAS-callable SUDAAN software (7) to account for the complex sample design of NHIS. All estimates are based on self-report and meet National Center for Health Statistics data presentation standards for proportions (8). Differences between percentages were evaluated using two-sided significance tests at the 0.05 level. Linear and quadratic trends by age group, family income, and BMI were evaluated using orthogonal polynomials.

About the authors

Anjel Vahratian and Antonia Warren are with the National Center for Health Statistics, Division of Health Interview Statistics.

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Figure tables

Data table for Figure 1. Percentage of adults with diagnosed diabetes who used GLP-1 injectables, overall and by sex and age group: United States, 2024

Selected characteristic	Percent (95% confidence interval)	Standard error
Total	26.5 (24.7–28.5)	0.97
Sex		
Men	25.9 (23.1–28.7)	1.41
Women	27.2 (24.8–29.8)	1.26
Age group		
18–34	¹ 25.3 (13.7–40.2)	6.39
35–49	29.7 (24.4–35.4)	2.74
50–64	33.3 (29.9–36.9)	1.74
65 and older	20.8 (18.5–23.4)	1.22

¹Significant quadratic trend by age (ρ < 0.05). Pairwise tests indicate significant differences between those ages 35–49 and 50–64 compared with those age 65 and older

Data table for Figure 2. Percentage of adults with diagnosed diabetes who used GLP-1 injectables, by race and Hispanic origin and family income: United States, 2024

Selected characteristic	Percent (95% confidence interval)	Standard error
Race and Hispanic origin		
Asian, non-Hispanic	¹ 12.1 (7.2–18.7)	2.77
Black, non-Hispanic	26.5 (21.4–32.2)	2.66
White, non-Hispanic	26.2 (24.0–28.3)	1.09
Hispanic	31.3 (25.6–37.5)	2.94
Family income		
Less than 100% FPL	25.8 (20.9–31.2)	2.55
100% to less than 200% FPL	24.2 (20.2–28.6)	2.09
200% to less than 400% FPL	26.2 (22.8–29.9)	1.79
400% FPL or more	29.0 (25.8–32.4)	1.65

¹Significantly lower than Black non-Hispanic, White non-Hispanic, and Hispanic adults with diagnosed diabetes (p < 0.05).

NOTES: GLP-1 is glucagon-like peptide-1. Categories shown for non-Hispanic adults are for those who selected only one racial group. Adults categorized as Hispanic may be of any race or combination of races. FPL is federal poverty level. Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population.

NOTES: The total percentage of 26.5% is equal to an estimated 6.9 million adults with diagnosed diabetes who used glucagon-like peptide-1 (GLP-1) injectables in 2024. Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population.

SOURCE: National Center for Health Statistics, National Health Interview Survey, 2024.

Data table for Figure 3. Percentage of adults with diagnosed diabetes who used GLP-1 injectables, by body mass index: United States, 2024

Body mass index	Percent (95% confidence interval)	Standard error
Underweight	*	*
Healthy weight	¹ 16.7 (12.9–21.0)	2.00
Overweight	22.2 (19.1–25.5)	1.60
Obesity	32.4 (29.7–35.1)	1.34

^{*} Estimate does not meet National Center for Health Statistics standards of reliability. 1Significant increasing linear test of trend (ρ < 0.05).

NOTES: GLP-1 is glucagon-like peptide-1. Underweight is body mass index (BMI) of less than 18.5 kg/m². Healthy weight is BMI of 18.5 to less than 25.0 kg/m². Overweight is BMI of 25.0 to less than 30.0 kg/m². Obesity is BMI of 30.0 kg/m² or more. Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population.

SOURCE: National Center for Health Statistics, National Health Interview Survey, 2024.

Data table for Figure 4. Percentage of adults with diagnosed diabetes who used GLP-1 injectables, by diabetes medication status: United States, 2024

Diabetes medication use	Percent (95% confidence interval)	Standard error
Insulin		
Yes	¹ 31.3 (28.1–34.6)	1.64
No	24.5 (22.2–26.9)	1.19
Oral glucose-lowering medications		
Yes	¹ 28.1 (25.8–30.5)	1.20
No	22.2 (19.1–25.6)	1.63

 $^{^{1}}$ Significantly different from adults with diagnosed diabetes who did not take that medication (p < 0.05).

NOTES: GLP-1 is glucagon-like peptide-1. Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population. SOURCE: National Center for Health Statistics, National Health Interview Survey, 2024.

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