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# Any Visit to the Eye Doctor in the Past 12 Months Among Adults Diagnosed With Diabetes, by Years Since Diabetes Diagnosis and by Age: United States, 2012–2013

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Increasing time since diabetes diagnosis is strongly associated with severe vision loss (1). A comprehensive eye examination by an optometrist or ophthalmologist at least annually or biannually is recommended for persons with diabetes, to identify changes in the blood vessels of the retina (1). The effectiveness of treatment is well established, warranting screening for diabetic retinopathy and for assessing retinopathy progression (1). However, the use of select health screenings and therapeutic services may be less common in younger adults with diabetes (2).

This Health E-Stat provides information on the percentage of U.S. adults with diagnosed diabetes who visited an eye doctor in the past year, by years since diabetes diagnosis and by age group, using data from the 2012–2013 National Health Interview Survey (NHIS). Survey respondents were asked about having seen an "optometrist, ophthalmologist, or eye doctor" in the past year, but they were not asked about the services provided at the visit (including assessment of retinopathy).

Overall, 21.7 million U.S. adults aged 18 and over (9.2%) have diagnosed diabetes (Table 1), and the percentage increases with age. One in five adults aged 65 and over (20.5%, or 8.7 million) has diagnosed diabetes, compared with 11.0% (11.3 million) aged 40–64 and 1.9% (1.7 million) aged 18–39.

Overall, 6.1 million adults aged 18 and over with diagnosed diabetes received the diagnosis within 5 years prior to interview, 4.7 million received the diagnosis 5 to less than 10 years prior to interview, and 10.5 million received the diagnosis 10 or more years prior to interview (Table 2). The distribution of years since diabetes diagnosis varied by age group. Approximately 41.7% of adults aged 18–39 were diagnosed within the prior 5 years, compared with 34.1% of adults aged 40–64 and 19.6% aged 65 and over. Conversely, 36.6% of adults aged 18–39 were diagnosed 10 or more years prior to interview, compared with 41.9% aged 40–64 and 61.0% aged 65 and over.

Among all adults, the percentage who visited an eye doctor in the past 12 months increased with years since diabetes diagnosis (figure). Approximately 51.6% of those diagnosed with diabetes within the prior 5 years had visited an eye doctor in the past 12 months, compared with 57.3% of those diagnosed 5 to less than 10 years ago and 61.2% of those diagnosed 10 or more years ago.

Among adults with diagnosed diabetes, the percentage who had visited an eye doctor during the past 12 months increased with age: 38.2% for those aged 18–39, 53.8% for those aged 40–64, and 66.5% for those aged 65 and over. Analysis stratified by current age revealed no significant differences by years since diabetes diagnosis in the percentage who sought care with an eye

doctor in the past 12 months, among those aged 18–39 and 65 and over. Among those aged 40–64, the percentage who had visited an eye doctor was significantly higher for those diagnosed 10 or more years ago (58.0%) compared with those diagnosed within the past 5 years (49.0%). Thus, among adults with diabetes, both age and years since diagnosis may play a role in visiting an eye doctor in the past 12 months. However, the findings here show that the association between years since diagnosis and visiting an eye doctor in the past year may only hold for certain age groups, specifically adults aged 40–64.

NHIS is a multipurpose health survey based on household interviews of a sample of the civilian noninstitutionalized U.S. population. It is conducted continuously throughout the year by the Centers for Disease Control and Prevention's (CDC) National Center for Health Statistics (NCHS). A "sample adult" is randomly selected from each family in each selected household to answer detailed health information about him or herself. Pooled analyses using NHIS survey years 2012–2013 were restricted to adults aged 18 and over who had ever been told by a doctor or health professional that they have diabetes or sugar diabetes.

## References


1. American Diabetes Association. Standards of medical care in diabetes—2015. Diabetes Care 38 Suppl 1:S1–99. 2015.

2. Villarroel MA, Vahratian A, Ward BW. Health care utilization among adults with diagnosed diabetes, 2013. NCHS data brief, no 183. Hyattsville, MD: National Center for Health Statistics. 2015. Available from: http://www.cdc.gov/nchs/data/databriefs/db183.htm.


Table 1. Adults aged 18 and over with diagnosed diabetes, by age group: United States, 2012–2013

| Current age | Number (in thousands) | Percent (standard error) |
|---|---|---|
| 18 and over | 21,746 | 9.21 (0.15) |
| 18–39 | 1,681 | 1.85 (0.11) |
| 40–64 | 11,332 | 11.03 (0.25) |
| 65 and over | 8,732 | 20.51 (0.42) |

NOTES: Estimates for the three age groups were significantly different from each other ($p < 0.05$). Diagnosed diabetes is based on a positive response to the survey question, "Have you ever been told by a doctor or health professional that you have diabetes or sugar diabetes?" Women were asked to exclude a diagnosis received only during pregnancy.

SOURCE: CDC/NCHS, National Health Interview Survey, 2012–2013.

Table 2. Distribution of years since diabetes diagnosis among adults, by age group: United States, 2012–2013

| Current age and years since diagnosis | Number (in thousands) | Percent (standard error) |
|---|---|---|
| 18 and over | | |
| Total | 21,311 | 100.0 |
| Less than 5 | 6,161 | 28.9 (10.72) |
| 5 to less than 10 | 4,688 | 22.0 (0.65) |
| 10 or more | 10,461 | 49.1 (0.80) |
| 18–39 | | |
| Total | 1,678 | 100.0 |
| Less than 5 | 699 | [1,2]41.7 (2.99) |
| 5 to less than 10 | 364 | 21.7 (2.28) |
| 10 or more | 614 | [2]36.6 (3.05) |
| 40–64 | | |
| Total | 11,145 | 100.0 |
| Less than 5 | 3,799 | [2]34.1 (1.07) |
| 5 to less than 10 | 2,675 | [2]24.0 (0.97) |
| 10 or more | 4,671 | [2]41.9 (1.11) |
| 65 and over | | |
| Total | 8,488 | 100.0 |
| Less than 5 | 1,664 | 19.6 (0.91) |
| 5 to less than 10 | 1,649 | 19.4 (0.88) |
| 10 or more | 5,176 | 61.0 (1.12) |

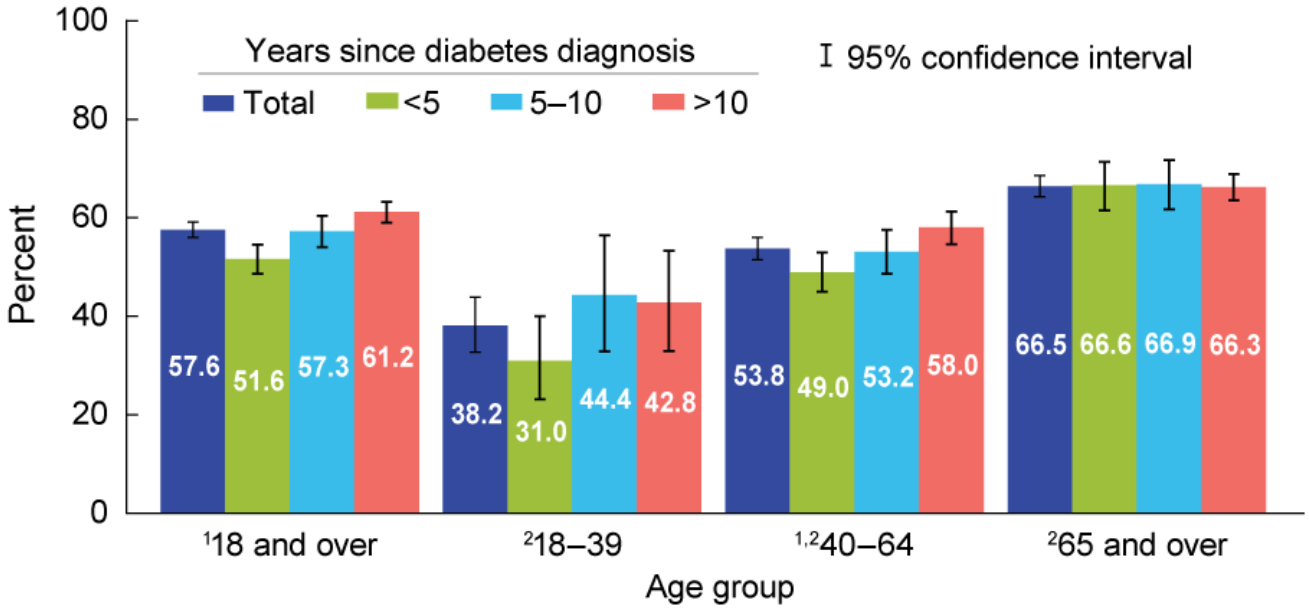
[1]Significantly different from adults aged 40–64 ($p < 0.05$).

[2]Significantly different from adults aged 65 and over ($p < 0.05$).

NOTES: An overall association between years since diabetes diagnosis and age was statistically significant ($p < 0.05$). Years since diabetes diagnosis is based on the response to the question, "How old were you when a doctor or other health professional first told you that you had diabetes or sugar diabetes?" subtracted from the respondent's current age. This question was asked of those who reported having ever been told by a doctor or health professional that they have diabetes or sugar diabetes. Unknowns for years since diabetes diagnosis are not included in the table.

SOURCE: CDC/NCHS, National Health Interview Survey, 2012–2013.

## Figure. Adults aged 18 and over diagnosed with diabetes who visited an eye doctor in the past 12 months, by years since diabetes diagnosis and by age group: United States, 2012–2013




[1]Significant linear trend of visit to an eye doctor, by years since diabetes diagnosis ($p < 0.05$).
[2]Total estimates for contact with an eye doctor for the three age groups were significantly different from each other ($p < 0.05$).
NOTES: Visited an eye doctor in the past 12 months is based on a positive response to having seen or talked to "an optometrist, ophthalmologist, or eye doctor (someone who prescribes eyeglasses)" when questioned about specialty doctors and prefaced with, "During the past 12 months, have you seen or talked to any of the following health care providers about your own health?" Years since diabetes diagnosis is based on the response to the question, "How old were you when a doctor or other health professional first told you that you had diabetes or sugar diabetes?" subtracted from the respondent's current age. This question was asked of those who reported having ever been told by a doctor or health professional that they have diabetes or sugar diabetes. Estimates are based on household interviews of a sample of the civilian noninstitutionalized U.S. population and are derived from the National Health Interview Survey, Sample Adult component.
SOURCE: CDC/NCHS, National Health Interview Survey, 2012–2013.