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Enrollment in High-deductible Health Plans Among People Younger Than Age 65 With Private Health Insurance: United States, 2019–2023

by Robin A. Cohen, Ph.D., and Elizabeth M. Briones, Ph.D.

Abstract

Objective— This report provides a comprehensive look at enrollment in high-deductible health plans (HDHP), including consumer-directed health plans (CDHP) among privately insured people younger than age 65.

Methods—Data from the 2019 through 2023 National Health Interview Survey were used to examine enrollment in HDHPs and CDHPs among people younger than age 65 with private health insurance. CDHPs are HDHPs with an associated health savings account or health reimbursement account. All estimates are presented by sex, age group, race and Hispanic origin, family income, family educational attainment, level of urbanization, and source of private coverage.

Results—In 2023, among privately insured people younger than age 65, 41.7% were enrolled in an HDHP. Enrollment increased from 40.3% in 2019 to 43.3% in 2021, followed by a decrease to 41.7% in 2023. Among people with employment-based coverage, enrollment in an HDHP increased from 40.2% in 2019 to 43.4% in 2021, followed by a decrease to 41.9% in 2023. For people with directly purchased coverage, enrollment in an HDHP increased from 44.3% in 2019 to 47.0% in 2020, followed by a decrease to 43.1% in 2023. Generally, White non-Hispanic people were the most likely to be enrolled in an HDHP. Black non-Hispanic and Hispanic people were the least likely to be enrolled in an HDHP. Enrollment in an HDHP increased with family income and family educational attainment. In 2023, 19.5% of people younger than age 65 with private health insurance were enrolled in a CDHP. Enrollment characteristics of people with CDHPs mirrored those of people with HDHPs overall. However, children were more likely to be enrolled in an CDHP plan than adults ages 18–64. People with employment-based coverage were nearly four times more likely to be enrolled in a CDHP than their counterparts with directly purchased coverage.

Keywords: high-deductible health plan (HDHP) • consumer-directed health plan (CDHP) • health savings account (HSA) • health insurance • private coverage • National Health Interview Survey (NHIS)

Introduction

High-deductible health plans (HDHPs) are health insurance policies with higher deductibles than traditional insurance plans. People with HDHPs pay lower monthly insurance premiums by paying more out-of-pocket for medical expenses until their minimum deductible is met (1). An HDHP may be used with or without a health savings account (HSA). Plans with an associated HSA or health reimbursement agreement are also known as consumer-directed or consumer-driven health plans (CDHPs) (2). Enrollment in HDHPs has grown since the enactment of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (PL. 108-173), which established HSAs (3).

Previous studies found that enrollments in HDHPs were higher among those with directly purchased private coverage than those with employment-based coverage (4,5). However, the HDHP enrollment gap between employment-based and directly purchased coverage had diminished considerably by 2018 (5). More recently, according to studies conducted by the Employee Benefit Research Institute, overall enrollment in HDHPs has declined since 2020 (6). Those employed

by small- and medium-sized firms were offered plans that had higher average deductibles than those employed by large firms (7). In 2023, most firms that offered health benefits only offered one type of health plan, with about 63% of covered workers employed by a firm that offered one or more HDHPs (8). For people with employment-based coverage, HDHPs have the effect of shifting costs from the employer to the person seeking care (9).

A growing number of people enrolled in HDHPs are also enrolled in a CDHP, with the percentage increasing from more than 30% in 2010 to nearly 45% in 2018 (5). Similar increases in CDHP enrollment were observed in the Consumer Engagement and Health Care Survey (6). Enrollment in a CDHP may help offset some of the upfront financial burdens of HDHPs with the use of their associated HSAs or health reimbursement agreements that help pay for health care until the deductible is met (10,11).

This analysis uses the most recent data from the 2019–2023 National Health Interview Survey (NHIS) to examine HDHP and CDHP enrollment among people younger than age 65 with private health insurance. The percentage of CDHP enrollment among HDHP enrollees is also provided. Estimates for these outcomes are disaggregated by selected demographic measures.

Methods

Data source

The estimates in this report are based on data from the Sample Adult and Sample Child modules of the 2019–2023 NHIS. 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. The NHIS interview begins by identifying everyone who usually lives in the household. One sample adult, age 18 or older, and one sample child, age 17 or younger (if any children live in the household) are randomly selected to be part of the NHIS sample. Information about the sample adult is collected from the sample adults themselves unless they are physically or mentally unable to report, in which case a knowledgeable proxy can answer for them. An adult who is knowledgeable and responsible for the child's health answers questions on the child's behalf. Interviews typically are initiated face-to-face in respondents' homes with follow-ups conducted by telephone as needed.

Due to the COVID-19 pandemic, NHIS data collection shifted from in-person interviews in the home to telephone-only mode beginning on March 19, 2020 (12). Personal visits to households resumed in selected areas in July 2020 and in all areas of the country in September 2020. Starting in May 2021, interviewers returned to regular survey interviewing procedures—first-contact attempts to households were made in person, with follow-up allowed by telephone (13).

Both the Sample Adult and Sample Child modules include a full range of questions addressing health insurance, such as coverage status, sources of coverage, characteristics of coverage, and reasons for no coverage. The sample adult and sample child receive a similar set of health insurance questions, so the Sample Adult and Sample Child files can be combined to create a file that includes people of all ages. Detailed information about the design, content, and use of NHIS and annual sample sizes and response rates of NHIS are available in the annual NHIS Survey Description (12–16). Response rates for the Sample Adult component ranged from 47.0% to 59.1% and for the Sample Child component from 44.9% to 59.1%.

HDHP

For people with private health insurance, a series of questions were asked about deductibles for each private health insurance plan (data on up to two plans were collected per person). For each calendar year, the minimum deductible for an HDHP is defined under § 223 of the Internal Revenue Code. This amount is adjusted for inflation annually. An HDHP was defined in 2019 as having an annual deductible of at least $1,350 for self-only coverage and $2,700 for family coverage. For 2020–2022, the annual deductible was at least $1,400 for self-only coverage and $2,800 for family coverage. For 2023, the annual deductible was at least $1,500 for self-only coverage and $3,000 for family coverage. Private plans with an unknown deductible that had an associated HSA or health reimbursement account were also considered to be HDHPs. The percentage of respondents with private health insurance for whom it was unknown whether the plan was an HDHP was about 13.4%. The percentage of people younger than age 65 with private health insurance was 64.3% in 2019 and 2020, 65.4% in 2021, 64.0% in 2022, and 65.1% in 2023 (17).

CDHP

A CDHP is an HDHP with a special account to pay for medical expenses; unspent funds may be carried over to subsequent years. People were considered to have a CDHP if they responded "yes" when asked, "There are special accounts or funds that can be used to pay for medical expenses, sometimes referred to as Health Savings Accounts or HSAs, Health Reimbursement Accounts or HRAs, Personal Care accounts, Personal Medical funds, or Choice funds. These are DIFFERENT from Flexible Spending Accounts or FSAs. Is there one of these accounts or funds with this plan?"

Statistical analysis

All estimates of HDHP and CDHP enrollment are presented by sex, age group, race and Hispanic origin, family income, family educational attainment, level of urbanization, and source of private coverage (see Technical Notes for more details about these variables). Estimates are limited to those with private health insurance.

Estimates that did not meet National Center for Health Statistics presentation standards were suppressed (18). The 95% confidence intervals were generated using the Korn–Graubard method for complex surveys (19). Statistical significance was set at $p < 0.05$ for all tests. No adjustments were made for multiple comparisons. Estimates were calculated using the NHIS survey weights and are representative of the U.S. civilian noninstitutionalized population (12–16). Point estimates and their corresponding

variances were calculated using SAS-callable SUDAAN software version 11.0.0 (RTI International, Research Triangle Park, N.C.) to account for the complex sampling design of NHIS. Respondents with missing data or unknown information were excluded from the analysis unless specifically noted.

Trends by family income, family education level, and levels of urbanization were evaluated using orthogonal polynomials in logistic regression analyses. The discussion of the results by demographic differences is limited to 2023, as differences are generally consistent from year to year. Terms such as "more likely" and "less likely" or specific group comparisons indicate a statistically significant difference unless noted otherwise. Lack of comment about the difference between any two estimates does not necessarily mean that the difference was tested and found to be not statistically significant.

Results

Trends over time

In 2023, 41.7% of privately insured people younger than age 65 were enrolled in an HDHP (Table 1). Enrollment increased from 40.3% in 2019 to 43.3% in 2021, followed by a decrease to 41.7% in 2023 (Figure 1). Among people with employment-based coverage, enrollment in an HDHP increased from 40.2% in 2019 to 43.4% in 2021, followed by a decrease to 41.9% in 2023. For people with directly purchased coverage, enrollment in an HDHP increased from 44.3% in 2019 to 47.0% in 2020, followed by a decrease to 43.1% in 2023. In 2019 and 2020, people with employment-based coverage were less likely to be enrolled in an HDHP than those with directly purchased coverage.

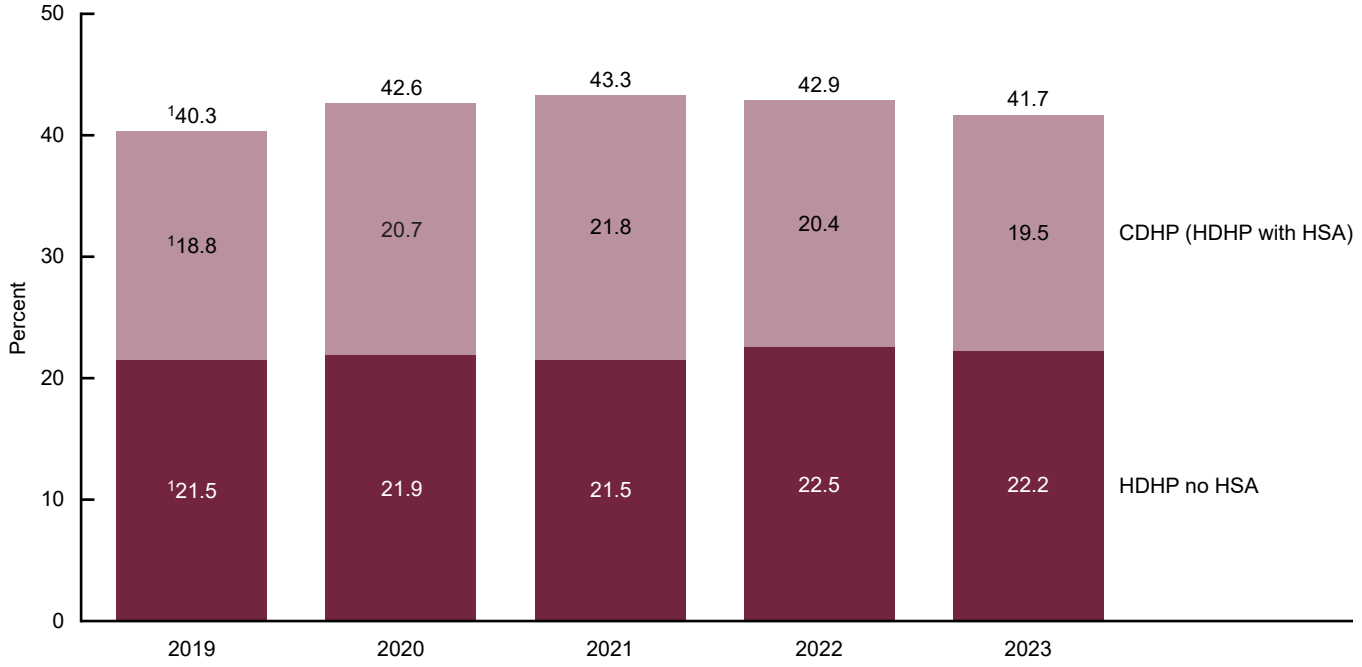
In 2023, among privately insured people younger than age 65, 19.5% were enrolled in a CDHP (Table 2). Enrollment increased from 18.8% in 2019 to 21.8% in 2021, followed by a decrease to 19.5% in 2023 (Figure 1). Among people with employment-based coverage, enrollment in a CDHP increased from 20.6% in 2019 to 24.2% in 2021, followed by a decrease to 21.7% in 2023 (Figure 2). Among those with directly purchased coverage, enrollment in a CDHP did not change significantly from 2019 through 2023. People with employment-based coverage were nearly four times more likely than those with directly purchased coverage to be enrolled in a CDHP.

The percentage of HDHP enrollments that were CDHPs was 46.8% in 2023 (Table 3). The percentage increased from 46.7% in 2019 to 50.4% in 2021, and then decreased to 46.8% in 2023 (Table 3).

Demographic differences

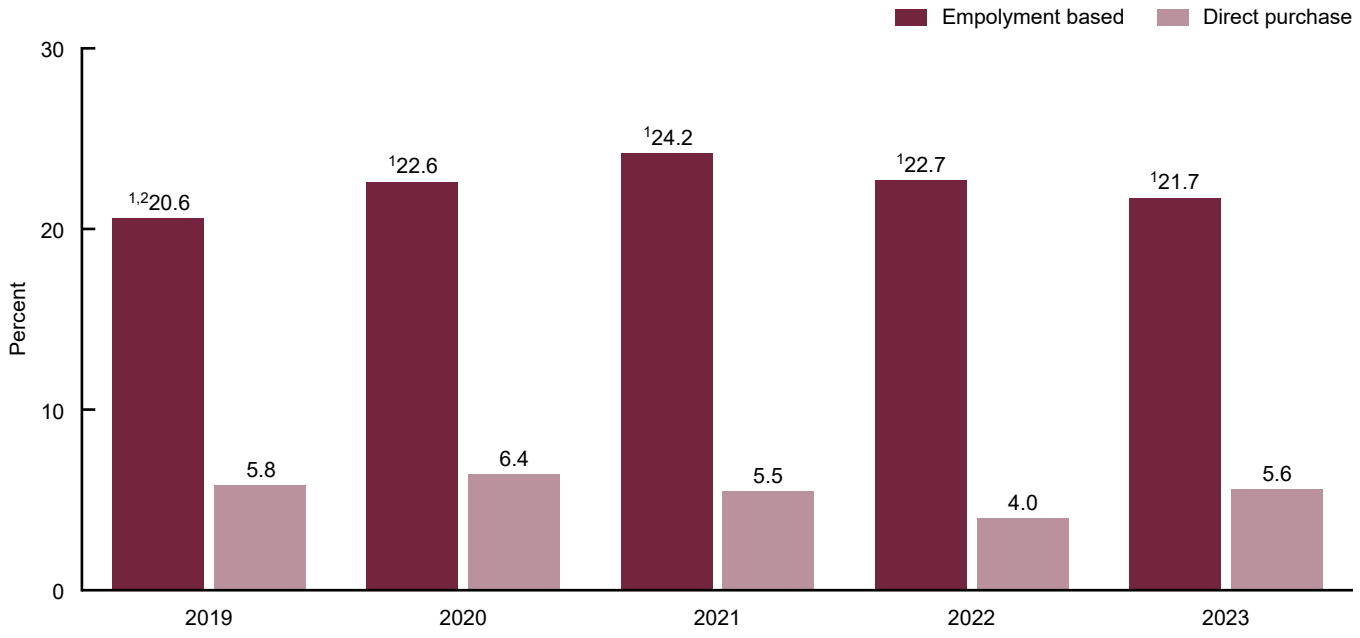
In 2023, among privately insured people younger than age 65, White people were the most likely to be enrolled in an HDHP (46.0%), followed by people of other or multiple races (42.4%), Asian (40.1%), Hispanic (31.1%), and Black (28.6%) people (Table 1). Enrollment in an HDHP increased with increasing

Figure 1. Percentage of people younger than age 65 who were enrolled in a high-deductible health plan without a health savings account or in a consumer-directed health plan, among those with private health insurance coverage, by year: United States, 2019–2023



[1]Significant quadratic trend with time ($p < 0.05$).
NOTES: CDHP is consumer-directed health plan, which is a high-deductible health plan (HDHP) with a health savings account (HSA). HDHP no HSA is a high-deductible health plan without an HSA.
SOURCE: National Center for Health Statistics, National Health Interview Survey, 2019–2023.

Figure 2. Percentage of people younger than age 65 who were enrolled in a consumer-directed health plan among those with private health insurance, by source of coverage and year: United States, 2019–2023



[1]Significantly different from people with directly purchased private coverage ($p < 0.05$).
[2]Significant quadratic trend with time ($p < 0.05$).
NOTES: Employment based includes plans obtained through an employer, union, or other professional organization. Employment-based coverage also includes those who work for federal, state, and local governments. Directly purchased coverage includes exchange-based coverage in addition to plans obtained directly from an insurance company or through a broker. Exchange-based coverage is a private plan purchased through the federal Health Insurance Marketplace or state-based exchanges that were established as part of the Affordable Care Act.
SOURCE: National Center for Health Statistics, National Health Interview Survey, 2019–2023.

income, from 24.1% among those living in families with incomes less than 139% of the federal poverty level (FPL) to 45.3% among those living in families with incomes greater than 400% FPL. Similarly, enrollment in an HDHP increased with increasing levels of family education, from 21.4% among those living in families with less than a high school education to 45.1% among those living in families with a bachelor's degree or more. Differences in HDHP enrollment were not observed by sex, age group, or level of urbanization in 2023.

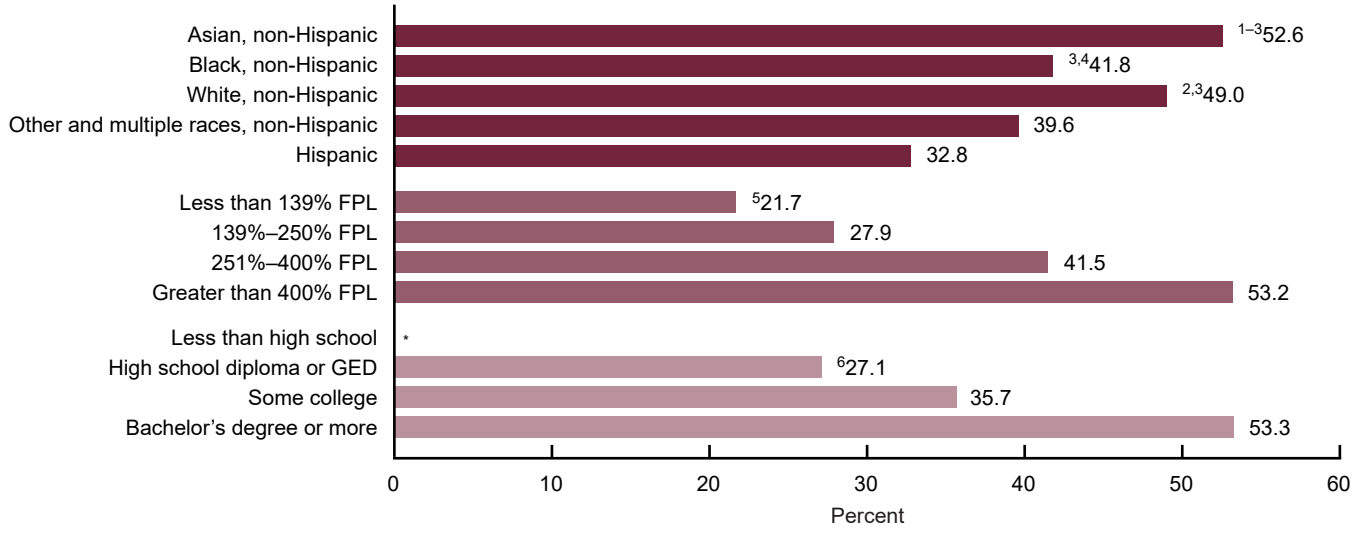
In 2023, among privately insured people younger than age 65, CDHP enrollment was higher among children (22.2%) than adults ages 18–64 (18.7%) (Table 2). CDHP enrollment was highest among White (22.6%) and Asian (21.1%) people compared with Black (12.0%) and Hispanic (10.2%) people. CDHP enrollment increased with increasing family income, from 5.2% among people in families with incomes less than 139% FPL to 24.1% among people with incomes greater than 400% FPL. Similarly, CDHP enrollment increased with increasing family education, from 8.8% among people with a family educational attainment of a high school diploma or GED to 24.0% among those with a bachelor's degree or more.

In 2023, the percentage of people with HDHPs who were enrolled in a CDHP was higher among children (52.3%) than adults ages 18–64 (45.1%) (Table 3). This percentage was highest among Asian (52.6%) and White (49.0%) people compared with Black (41.8%), other and multiple races (39.6%), and Hispanic (32.8%) people (Figure 3). The percentage increased with increasing family income, from 21.7% among people in families with incomes less than 139% FPL to 53.2% among people with incomes greater than 400% FPL. Similarly, the percentage increased with increasing family education, from 27.1% among people with an educational attainment of a high school diploma or GED to 53.3% among those with a bachelor's degree or more.

Summary

This report provides a detailed picture of enrollment in HDHPs and CDHPs among privately insured people younger than age 65 in the United States from 2019 through 2023. Enrollment in HDHPs increased from 40.3% in 2019 to 43.3% in 2021, followed by a decrease to 41.7% in 2023. These results are similar to findings from other surveys, which found HDHP enrollment decreasing or leveling off in recent years (6,8). HDHP enrollment traditionally has been higher among those with directly purchased plans than those with employment-based coverage (4,5). However, this difference may be shifting. This report found that from 2021 through 2023, enrollment in HDHPs did not differ significantly between employment-based and directly purchased coverage. Most people with private coverage obtain their coverage through their employment or their spouse or parent's employment (6). In addition, White and Asian people were generally more likely than Black and Hispanic people to be enrolled in HDHPs and CDHPs. These results mirror earlier

Figure 3. Percentage of people younger than age 65 who were enrolled in a consumer-directed health plan among those with high-deductible health plans, by race and ethnicity, family income, and educational level: United States, 2023



* Estimate does not meet National Center for Health Statistics standards of reliability.
[1]Significantly different from Black non-Hispanic people ($p < 0.05$).
[2]Significantly different from other and multiple races non-Hispanic people ($p < 0.05$).
[3]Significantly different from Hispanic people ($p < 0.05$).
[4]Significantly different from White non-Hispanic people ($p < 0.05$).
[5]Significant linear trend with increasing family income ($p < 0.05$).
[6]Significant linear trend with increasing family education ($p < 0.05$).
NOTES: People classified as Hispanic may be of any race or combination of races. People categorized as Asian non-Hispanic, Black non-Hispanic, and White non-Hispanic indicated one race only. Non-Hispanic people of other or multiple races are combined in the Other and multiple races non-Hispanic category. Federal poverty level (FPL) was calculated using the U.S. Census Bureau's poverty thresholds for the previous calendar year, which consider family size and age. Educational level is based on the highest level of education within a family. 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, 2023.

studies based on NHIS that found similar differences by race and ethnicity (4,20).

Furthermore, HDHP and CDHP enrollment increased with increasing family income and family education. Previous research found that those with higher incomes are more likely to contribute to HSAs (10). However, HDHP enrollees may still be more sensitive to healthcare costs because they are responsible for paying the full amount of qualified expenses until their deductible is met, potentially leading to a reduction in unnecessary medical care (11,21). Additionally, HDHP enrollees have been shown to have fewer outpatient and primary care visits, lower preventive services use, out-of-pocket spending, and emergency department use (21–25). Previous studies found that people enrolled in HDHPs have experienced delays and forgone care (9,26), and also experienced greater financial burdens than those enrolled in traditional health plans (non-HDHPs), especially among those with lower incomes or who require frequent medical attention (27–33).

Financial hardships associated with HDHPs may be eased through the enrollment in a CDHP, especially for those with chronic conditions (34). While decreases in HDHP enrollment have occurred starting in 2021, almost one-half of those with an HDHP are enrolled in a CDHP (Table 3). The percentage of those with an HDHP who were enrolled in a CDHP increased from about 22% among those with incomes less than 139% FPL to over 53% among those with incomes greater than 400% FPL. Low use of an associated HSA may additionally increase the financial burden of upfront out-of-pocket costs for those with lower incomes relative to those with higher incomes (11). However, a recent study found that adults enrolled in HDHPs were not using their HSAs to save for healthcare expenses (10).

The primary strength of NHIS to examine private coverage is the use of nationally representative, cross-sectional data that is collected consistently for adults and children. Other sources of enrollment characteristics are generally limited to adults (6,7,33). In addition, type of private coverage can be analyzed in combination with other measures available from NHIS, including forgone care, worry about healthcare costs, healthcare access and use, chronic conditions, and health behaviors. However, as with any self-report survey, NHIS is also susceptible to potential response or recall biases.

Another strength of NHIS is its low item nonresponse on overall questions about health insurance (less than 0.5%). However, a limitation of NHIS is the nonresponse to questions about deductibles, which was higher at about 13.4%. This lack of knowledge about deductibles may be due, in part, from the respondent not being the policyholder or not actively using the plan. Previous research has found that people may not fully understand basic concepts associated with health insurance (35–37). A study of college students found that only two-thirds could provide the correct definition of an annual health insurance deductible (35). Generally, health

insurance awareness increases with increasing age and higher levels of education (37).

Using NHIS for monitoring patterns in enrollment by sociodemographic characteristics may help with understanding the interaction between private health plan design and its effects on healthcare access.

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Table 1. Percentage of people younger than age 65 with private coverage who were enrolled in a high-deductible health plan, by selected demographics and year: United States, 2019–2023

Selected demographic	2019	2020	2021	2022	2023
	Percent (confidence interval)				
Total[1]	40.3 (39.2–41.4)	42.6 (41.5–43.8)	43.3 (42.2–44.4)	42.9 (41.8–44.1)	41.7 (40.6–42.8)
Sex					
Female	40.6 (39.2–42.1)	42.7 (41.2–44.2)	43.6 (42.2–45.0)	42.7 (41.2–44.2)	41.3 (40.0–42.7)
Male	39.9 (38.5–41.4)	42.6 (41.1–44.1)	42.9 (41.5–44.4)	43.2 (41.7–44.6)	42.0 (40.5–43.6)
Age group					
0–17	41.2 (39.3–43.0)	43.0 (40.7–45.3)	44.9 (43.0–46.7)	43.7 (41.7–45.6)	42.5 (40.7–44.4)
18–64	40.0 (38.9–41.2)	42.5 (41.4–43.7)	42.8 (41.7–43.9)	42.7 (41.6–43.9)	41.5 (40.3–42.6)
Race and Hispanic origin[2]					
Asian, non-Hispanic	[3–5]38.7 (34.9–42.5)	[3–6]41.1 (36.9–45.3)	[3–5]42.2 (38.6–45.8)	[3,5,6]44.2 (40.4–48.1)	[3–5]40.1 (36.3–43.9)
Black, non-Hispanic	[4,6]26.1 (23.1–29.3)	[4]28.2 (24.8–31.8)	[4,6]29.5 (26.4–32.7)	[4–6]28.9 (25.9–32.1)	[4,6]28.6 (25.6–31.8)
White, non-Hispanic	[5,6]45.0 (43.7–46.4)	[5,6]47.6 (46.2–49.0)	[5,6]47.7 (46.3–49.0)	[5,6]47.0 (45.5–48.4)	[5]46.0 (44.7–47.4)
Other and multiple races, non-Hispanic	[5]35.1 (29.5–41.0)	32.7 (27.1–38.6)	[5]39.4 (33.6–45.5)	37.0 (32.0–42.2)	[5]42.4 (37.2–47.7)
Hispanic	28.4 (26.0–31.0)	30.3 (27.3–33.5)	32.2 (29.5–34.9)	34.2 (31.5–36.9)	31.1 (28.7–33.6)
Family income[7]					
Less than 139% FPL	[8]22.5 (18.6–26.8)	[8]25.8 (21.2–30.9)	[9]29.9 (24.4–35.8)	[9]27.8 (23.5–32.4)	[8]24.1 (20.3–28.3)
139%–250% FPL	35.9 (33.1–38.7)	38.6 (35.4–42.0)	35.5 (32.5–38.5)	35.5 (32.5–38.6)	34.9 (31.9–38.0)
251%–400% FPL	40.5 (38.3–42.7)	41.6 (39.3–43.9)	42.4 (40.2–44.7)	43.2 (40.7–45.8)	40.6 (38.3–42.8)
Greater than 400% FPL	43.2 (41.8–44.6)	45.5 (44.0–47.0)	46.5 (45.1–47.8)	45.8 (44.4–47.3)	45.3 (43.9–46.8)
Family education[10]					
Less than high school	[11]22.0 (16.1–29.0)	[11]30.7 (22.9–39.3)	[11]25.4 (18.6–33.3)	[11]22.6 (15.8–30.7)	[11]21.4 (15.3–28.6)
High school diploma or GED	32.9 (30.2–35.6)	38.1 (35.1–41.2)	35.2 (32.4–38.1)	35.9 (32.9–39.0)	32.6 (29.9–35.3)
Some college	38.0 (36.0–40.1)	38.3 (36.2–40.4)	39.7 (37.6–41.9)	38.4 (36.3–40.5)	38.4 (36.3–40.6)
Bachelor's degree or more	43.5 (42.1–44.9)	45.8 (44.3–47.3)	46.2 (44.8–47.5)	46.5 (45.1–48.0)	45.1 (43.7–46.5)
Urbanization level[12]					
Large central metropolitan	37.8 (35.9–39.7)	[13]39.7 (37.6–41.8)	41.3 (39.4–43.2)	[13]41.3 (39.4–43.2)	39.6 (37.8–41.4)
Large fringe metropolitan	42.0 (39.9–44.2)	43.8 (41.7–45.8)	44.0 (42.0–46.0)	42.6 (40.4–44.8)	43.8 (41.8–45.9)
Medium and small metropolitan	40.7 (38.2–43.2)	42.8 (40.4–45.1)	44.7 (42.3–47.1)	43.9 (41.6–46.3)	42.1 (39.9–44.4)
Nonmetropolitan	41.6 (38.5–44.9)	47.7 (43.3–52.2)	43.5 (40.1–47.0)	45.9 (41.5–50.3)	40.8 (36.6–45.1)
Source of private coverage[14]					
Employment based[1]	[15,16]40.2 (39.0–41.4)	[15,16]42.4 (41.2–43.7)	[16]43.4 (42.3–44.6)	[16]43.3 (42.0–44.5)	[16]41.9 (40.7–43.1)
Direct purchase[1]	[16]44.3 (41.2–47.5)	[16]47.0 (43.7–50.4)	[16]46.1 (42.9–49.3)	[16]44.6 (41.6–47.7)	[16]43.1 (40.2–45.9)
Other	18.0 (11.4–26.3)	22.1 (14.1–32.0)	15.9 (10.9–22.1)	13.5 (8.6–20.0)	16.8 (10.7–24.6)

[1]Significant quadratic trend with time ($p < 0.05$).
[2]People classified as Hispanic may be of any race or combination of races. People categorized as Asian non-Hispanic, Black non-Hispanic, and White non-Hispanic indicated one race only. Non-Hispanic people of other or multiple races are combined in the other and multiple races non-Hispanic category.
[3]Significantly different from Black non-Hispanic people ($p < 0.05$).
[4]Significantly different from White non-Hispanic people ($p < 0.05$).
[5]Significantly different from Hispanic people ($p < 0.05$).
[6]Significantly different from other and multiple races non-Hispanic people ($p < 0.05$).
[7]Federal poverty level (FPL) was calculated using the U.S. Census Bureau's poverty thresholds for the previous calendar year, which consider family size and age.
[8]Significant quadratic trend with family income ($p < 0.05$).
[9]Significant linear trend with increasing family income ($p < 0.05$).
[10]Based on the highest level of education within a family.
[11]Significant linear trend with increasing family education ($p < 0.05$).
[12]Measured using metropolitan statistical area (MSA) status. The Office of Management and Budget defines MSAs according to published standards that are applied to U.S. Census Bureau data. Generally, an MSA consists of a county or group of counties containing at least one urbanized area with a population of 50,000 or more (see reference 45 in this report). See Methods section in this report for more detail. Large central MSAs have a population of 1 million or more (similar to inner cities). Large fringe MSAs have a population of 1 million or more (similar to suburbs). Medium and small MSAs have a population of less than 1 million.
[13]Significant linear trend with decreasing level of urbanization ($p < 0.05$).
[14]The employment-based category includes plans obtained through an employer, union, or other professional organization. Employment-based coverage also includes those who work for federal, state, and local governments. Directly purchased coverage includes exchange-based coverage in addition to plans obtained directly from an insurance company or through a broker. Exchange-based coverage is a private plan purchased through the federal Health Insurance Marketplace or state-based exchanges that were established as part of the Affordable Care Act (see reference 38 in this report). The other category for private health insurance includes plans obtained through state or local government or community programs, school, parent, other relative, other source not specified, and those who did not respond to the question asking about the source of their private coverage (refused, not ascertained, and don't know).
[15]Significantly different from people with directly purchased private coverage ($p < 0.05$).
[16]Significantly different from people with other sources of private coverage ($p < 0.05$).

NOTES: For people with private health insurance, a series of questions were asked regarding deductibles for each private health insurance plan (data for up to two plans were collected per person). A consumer-directed health plan is a high-deductible health plan with an associated health savings account or health reimbursement account associated with the health plan. A high-deductible health plan was defined in 2019 as having an annual deductible of at least $1,350 for self-only coverage and $2,700 for family coverage. The deductible is adjusted annually for inflation. For 2020 through 2022, the annual deductible was at least $1,400 for self-only coverage and $2,800 for family coverage. For 2023, the annual deductible was at least $1,500 for self-only coverage and $3,000 for family coverage. 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, 2019–2023.

Table 2. Percentage of people younger than age 65 with private coverage who were enrolled in a consumer-directed health plan, by selected demographics and year: United States, 2019–2023

Selected demographic	2019	2020	2021	2022	2023
	Percent (confidence interval)				
Total[1]	18.8 (17.9–19.8)	20.7 (19.7–21.7)	21.8 (20.9–22.8)	20.4 (19.5–21.4)	19.5 (18.6–20.4)
Sex					
Female	19.0 (17.9–20.2)	20.4 (19.2–21.7)	22.1 (20.9–23.3)	20.3 (19.1–21.6)	19.1 (18.0–20.2)
Male	18.6 (17.4–19.7)	21.0 (19.8–22.3)	21.5 (20.3–22.7)	20.5 (19.3–21.8)	19.9 (18.7–21.1)
Age group					
0–17	[2]22.3 (20.6–24.0)	[2]23.6 (21.6–25.7)	[2]25.9 (24.2–27.7)	[2]24.2 (22.5–25.9)	[2]22.2 (20.7–23.8)
18–64	17.7 (16.9–18.6)	19.8 (18.9–20.7)	20.6 (19.7–21.5)	19.3 (18.4–20.3)	18.7 (17.8–19.6)
Race and Hispanic origin[3]					
Asian, non-Hispanic	[4,5]19.6 (16.6–22.8)	[4,5,7]22.4 (18.8–26.4)	[4,5]23.6 (20.6–26.8)	[4,5,7]23.4 (20.2–26.8)	[4,5]21.1 (18.1–24.3)
Black, non-Hispanic	[6,7]10.9 (8.9–13.2)	[6]12.2 (9.4–15.4)	[6,7]12.5 (10.4–14.8)	[6,7]11.8 (9.8–14.1)	[6,7]12.0 (9.8–14.4)
White, non-Hispanic	[5]21.9 (20.7–23.1)	[5,7]23.9 (22.7–25.1)	[5]24.8 (23.6–26.0)	[5,7]23.3 (22.0–24.5)	[5,7]22.6 (21.4–23.7)
Other and multiple races, non-Hispanic	[5]19.0 (14.9–23.7)	[5]16.0 (11.5–21.3)	[5]21.7 (17.3–26.7)	[5]18.3 (14.6–22.6)	[5]16.8 (13.2–20.8)
Hispanic	8.5 (7.1–10.0)	10.7 (8.8–13.0)	12.4 (10.7–14.3)	11.9 (10.1–13.9)	10.2 (8.7–11.9)
Family income[8]					
Less than 139% FPL	[9]6.7 (4.6–9.3)	[9]7.9 (5.3–11.3)	[9]5.7 (3.9–8.0)	[9]8.1 (5.5–11.5)	[9]5.2 (3.5–7.6)
139%–250% FPL	12.5 (10.6–14.6)	12.7 (10.3–15.4)	12.8 (10.6–15.2)	10.5 (8.6–12.8)	9.7 (7.9–11.8)
251%–400% FPL	16.0 (14.4–17.8)	17.5 (15.7–19.5)	18.8 (16.9–20.8)	17.8 (15.8–20.0)	16.8 (15.0–18.7)
Greater than 400% FPL	23.1 (21.9–24.3)	25.1 (23.8–26.4)	26.4 (25.1–27.7)	24.6 (23.4–25.9)	24.1 (22.9–25.4)
Family education[10]					
Less than high school	*	*	*	*	*
High school diploma or GED	[11]10.5 (8.8–12.4)	[12]13.6 (11.2–16.2)	[11]10.8 (9.2–12.6)	[11]9.5 (7.9–11.3)	[11]8.8 (7.3–10.6)
Some college	14.6 (13.2–16.1)	14.8 (13.3–16.4)	16.1 (14.5–17.8)	15.3 (13.7–17.0)	13.7 (12.2–15.4)
Bachelor's degree or more	23.0 (21.8–24.2)	25.1 (23.8–26.4)	26.1 (24.8–27.3)	24.9 (23.6–26.2)	24.0 (22.8–25.2)
Urbanization level[13]					
Large central metropolitan	18.2 (16.7–19.7)	20.6 (18.9–22.4)	21.9 (20.2–23.5)	20.6 (19.1–22.3)	18.8 (17.3–20.4)
Large fringe metropolitan	20.4 (18.6–22.2)	22.4 (20.7–24.2)	23.3 (21.5–25.1)	21.6 (19.9–23.4)	22.3 (20.7–24.0)
Medium and small metropolitan	18.2 (16.3–20.3)	20.2 (18.3–22.2)	21.3 (19.3–23.4)	19.6 (17.7–21.6)	18.0 (16.3–19.9)
Nonmetropolitan	18.2 (15.6–21.2)	18.1 (14.9–21.6)	19.4 (16.5–22.6)	19.0 (15.4–23.0)	17.8 (14.2–21.9)
Source of private coverage[14]					
Employment based[1]	[15,16]20.6 (19.6–21.6)	[15]22.6 (21.5–23.7)	[15,16]24.2 (23.1–25.3)	[15]22.7 (21.6–23.8)	[15,16]21.7 (20.7–22.7)
Direct purchase	[16]5.8 (4.4–7.6)	6.4 (5.0–8.1)	[16]5.5 (4.2–6.9)	4.0 (2.9–5.3)	[16]5.6 (4.3–7.1)
Other	0.9 (0.1–3.7)	*	2.5 (0.9–5.3)	*	1.4 (0.3–4.0)

* Estimate does not meet National Center for Health Statistics standards of reliability.
[1]Significant quadratic trend with time ($p < 0.05$).
[2]Significantly different from adults ($p < 0.05$).
[3]People classified as Hispanic may be of any race or combination of races. People categorized as Asian non-Hispanic, Black non-Hispanic, and White non-Hispanic indicated one race only. Non-Hispanic people of other or multiple races are combined in the other and multiple races non-Hispanic category.
[4]Significantly different from Black non-Hispanic people ($p < 0.05$).
[5]Significantly different from Hispanic people ($p < 0.05$).
[6]Significantly different from White non-Hispanic people ($p < 0.05$).
[7]Significantly different from other and multiple races non-Hispanic people ($p < 0.05$).
[8]Federal poverty level (FPL) was calculated using the U.S. Census Bureau's poverty thresholds for the previous calendar year, which consider family size and age.
[9]Significant linear trend with increasing family income ($p < 0.05$).
[10]Educational level is based on the highest level of education within a family.
[11]Significant linear trend with increasing family education ($p < 0.05$).
[12]Significant quadratic trend with family education ($p < 0.05$).
[13]Measured using metropolitan statistical area (MSA) status. The Office of Management and Budget defines MSAs according to published standards that are applied to U.S. Census Bureau data. Generally, an MSA consists of a county or group of counties containing at least one urbanized area with a population of 50,000 or more (see reference 45 in this report). See Methods section in this report for more detail. Large central MSAs have a population of 1 million or more (similar to inner cities). Large fringe MSAs have a population of 1 million or more (similar to suburbs). Medium and small MSAs have a population of less than 1 million.
[14]The employment-based category includes plans obtained through an employer, union, or other professional organization. Employment-based coverage also includes those who work for federal, state, and local governments. Directly purchased coverage includes exchange-based coverage in addition to plans obtained directly from an insurance company or through a broker. Exchange-based coverage is a private plan purchased through the federal Health Insurance Marketplace or state-based exchanges that were established as part of the Affordable Care Act (see reference 38 in this report). The other category for private health insurance includes plans obtained through state or local government or community programs, school, parent, other relative, other source not specified, and those who did not respond to the question asking about the source of their private coverage (refused, not ascertained, and don't know).
[15]Significantly different from people with directly purchased private coverage ($p < 0.05$).
[16]Significantly different from people with other sources of private coverage ($p < 0.05$).

NOTES: For people with private health insurance, a series of questions were asked regarding deductibles for each private health insurance plan (data for up to two plans were collected per person). A consumer-directed health plan is a high-deductible health plan with an associated health savings account or health reimbursement account associated with the health plan. A high-deductible health plan was defined in 2019 as having an annual deductible of at least $1,350 for self-only coverage and $2,700 for family coverage. The deductible is adjusted annually for inflation. For 2020 through 2022, the annual deductible was at least $1,400 for self-only coverage and $2,800 for family coverage. For 2023, the annual deductible was at least $1,500 for self-only coverage and $3,000 for family coverage. 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, 2019–2023.

Table 3. Percentage of people younger than age 65 with a high-deductible health plan who were enrolled in a consumer-directed health plan, by selected demographics and year: United States, 2019–2023

Selected demographic	2019	2020	2021	2022	2023
	Percent (confidence interval)				
Total[1]	46.7 (44.9–48.4)	48.6 (46.8–50.3)	50.4 (48.7–52.0)	47.6 (45.9–49.3)	46.8 (45.1–48.5)
Sex					
Female	46.8 (44.6–49.1)	47.8 (45.5–50.1)	50.7 (48.6–52.7)	47.6 (45.4–49.9)	46.2 (44.1–48.3)
Male	46.5 (44.3–48.7)	49.3 (47.0–51.6)	50.1 (47.9–52.3)	47.5 (45.2–49.8)	47.3 (45.2–49.5)
Age group					
0–17	[2]54.1 (51.2–57.0)	[2]55.0 (51.5–58.4)	[2]57.8 (55.0–60.5)	[2]55.3 (52.4–58.3)	[2]52.3 (49.4–55.0)
18–64	44.3 (42.6–46.0)	46.5 (44.9–48.2)	48.0 (46.4–49.7)	45.2 (43.5–46.9)	45.1 (43.4–46.8)
Race and Hispanic origin[3]					
Asian, non-Hispanic	[4,5]50.7 (44.6–56.8)	[4,5]54.5 (47.7–61.2)	[4,5]55.9 (50.4–61.4)	[4,5]52.9 (47.1–58.6)	[4,5,7]52.6 (46.3–58.7)
Black, non-Hispanic	[5–7]42.0 (35.6–48.5)	43.1 (35.3–51.2)	[6,7]42.3 (36.2–48.5)	[6]40.9 (34.9–47.1)	[5,6]41.8 (35.2–48.6)
White, non-Hispanic	[5]48.6 (46.6–50.7)	[5]50.2 (48.2–52.2)	[5]52.0 (50.1–53.9)	[5]49.6 (47.5–51.6)	[5,7]49.0 (47.1–50.9)
Other and multiple races, non-Hispanic	[5]54.2 (44.7–63.4)	[5]49.0 (37.1–60.9)	[5]55.1 (46.3–63.7)	[5]49.6 (40.9–58.4)	39.6 (31.7–47.8)
Hispanic	29.8 (25.4–34.5)	35.4 (29.9–41.3)	38.5 (33.8–43.4)	34.9 (30.3–39.7)	32.8 (28.5–37.2)
Family income[8]					
Less than 139% FPL	[9]29.6 (21.8–38.4)	[9]30.7 (21.3–41.4)	[9]19.0 (12.3–27.4)	[9]29.3 (20.8–39.0)	[9]21.7 (14.8–30.0)
139%–250% FPL	34.8 (30.1–39.7)	32.8 (27.5–38.5)	36.0 (30.7–41.6)	29.7 (24.8–35.0)	27.9 (23.2–32.9)
251%–400% FPL	39.6 (36.1–43.1)	42.2 (38.4–46.0)	44.3 (40.5–48.1)	41.2 (37.4–45.2)	41.5 (37.7–45.3)
Greater than 400% FPL	53.4 (51.3–55.5)	55.2 (53.1–57.3)	56.8 (54.8–58.8)	53.8 (51.6–55.9)	53.2 (51.2–55.3)
Family education[10]					
Less than high school	*	[11]23.2 (11.4–39.3)	*	*	*
High school diploma or GED	[11]31.9 (27.3–36.7)	35.6 (30.2–41.3)	[11]30.7 (26.3–35.5)	[11]26.4 (22.2–30.9)	[11]27.1 (22.7–31.8)
Some college	38.5 (35.4–41.6)	38.6 (35.3–41.9)	40.5 (37.0–44.1)	39.8 (36.3–43.5)	35.7 (32.2–39.3)
Bachelor's degree or more	52.9 (50.8–55.0)	54.8 (52.6–56.9)	56.4 (54.4–58.4)	53.4 (51.4–55.5)	53.3 (51.3–55.2)
Urbanization level[12]					
Large central metropolitan	48.0 (45.0–51.0)	[13]52.0 (48.8–55.2)	[14]52.9 (50.0–55.9)	[14]49.9 (46.9–52.9)	47.5 (44.5–50.6)
Large fringe metropolitan	48.5 (45.4–51.6)	51.2 (48.1–54.3)	53.0 (49.9–56.0)	50.9 (47.7–54.0)	50.9 (47.9–53.8)
Medium and small metropolitan	44.8 (41.3–48.3)	47.2 (43.8–50.7)	47.6 (44.5–50.7)	44.6 (41.2–48.0)	42.8 (39.7–46.0)
Nonmetropolitan	43.8 (38.5–49.2)	37.9 (32.7–43.2)	44.6 (39.5–49.8)	41.4 (35.7–47.4)	43.6 (37.2–50.1)
Source of private coverage[15]					
Employment based[1]	[16]51.2 (49.4–53.1)	[16]53.3 (51.4–55.1)	[16]55.7 (53.9–57.4)	[16]52.5 (50.6–54.4)	[16]51.7 (49.8–53.5)
Direct purchase	13.2 (10.1–16.8)	13.6 (10.7–17.0)	11.8 (9.2–14.9)	8.9 (6.5–11.9)	13.0 (10.2–16.2)
Other	*	*	*	*	*

* Estimate does not meet National Center for Health Statistics standards of reliability.
[1]Significant quadratic trend with time ($p < 0.05$).
[2]Significantly different from adults ($p < 0.05$).
[3]People classified as Hispanic may be of any race or combination of races. People categorized as Asian non-Hispanic, Black non-Hispanic, and White non-Hispanic indicated one race only. Non-Hispanic people of other or multiple races are combined in the other and multiple races non-Hispanic category.
[4]Significantly different from Black non-Hispanic people ($p < 0.05$).
[5]Significantly different from Hispanic people ($p < 0.05$).
[6]Significantly different from White non-Hispanic people ($p < 0.05$).
[7]Significantly different from other and multiple races non-Hispanic people ($p < 0.05$).
[8]Federal poverty level (FPL) was calculated using the U.S. Census Bureau's poverty thresholds for the previous calendar year, which consider family size and age.
[9]Significant linear trend with increasing family income ($p < 0.05$).
[10]Educational level is based on the highest level of education within a family.
[11]Significant linear trend with increasing family education ($p < 0.05$).
[12]Measured using metropolitan statistical area (MSA) status. The Office of Management and Budget defines MSAs according to published standards that are applied to U.S. Census Bureau data. Generally, an MSA consists of a county or group of counties containing at least one urbanized area with a population of 50,000 or more (see reference 45 in this report). See Methods section in this report for more detail. Large central MSAs have a population of 1 million or more (similar to inner cities). Large fringe MSAs have a population of 1 million or more (similar to suburbs). Medium and small MSAs have a population of less than 1 million.
[13]Significant quadratic trend with decreasing level of urbanization.
[14]Significant decreasing trend with decreasing level of urbanization.
[15]The employment-based category includes plans obtained through an employer, union, or other professional organization. Employment-based coverage also includes those who work for federal, state, and local governments. Directly purchased coverage includes exchange-based coverage in addition to plans obtained directly from an insurance company or through a broker. Exchange-based coverage is a private plan purchased through the federal Health Insurance Marketplace or state-based exchanges that were established as part of the Affordable Care Act (see reference 38 in this report). The other category for private health insurance includes plans obtained through state or local government or community programs, school, parent, other relative, other source not specified and those who did not respond to the question asking about the source of their private coverage (refused, not ascertained, and don't know).
[16]Significantly different from people with directly purchased private coverage ($p < 0.05$).

NOTES: For people with private health insurance, a series of questions were asked regarding deductibles for each private health insurance plan (data for up to two plans were collected per person). A consumer-directed health plan is a high-deductible health plan with an associated health savings account or health reimbursement account associated with the health plan. A high-deductible health plan was defined in 2019 as having an annual deductible of at least $1,350 for self-only coverage and $2,700 for family coverage. The deductible is adjusted annually for inflation. For 2020 through 2022, the annual deductible was at least $1,400 for self-only coverage and $2,800 for family coverage. For 2023, the annual deductible was at least $1,500 for self-only coverage and $3,000 for family coverage. 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, 2019–2023.

Technical Notes

Definitions of selected terms

Private health insurance

Private health insurance coverage includes any comprehensive private insurance plan (including health maintenance and preferred provider organizations). These plans include those obtained through an employer, purchased directly, purchased through local or community programs, or purchased through the Health Insurance Marketplace or a state-based exchange. Private coverage excludes plans that pay for only one type of service, such as dental, vision, or prescription drugs. People with private coverage were further classified into three sources of private coverage: employment based, directly purchased, and other sources. The employment-based category includes plans obtained through an employer, union, or other professional organization. Employment-based coverage also includes those who work for federal, state, and local governments. Directly purchased coverage includes exchange-based coverage in addition to plans obtained directly from an insurance company or through a broker. Exchange-based coverage is a private plan purchased through the federal Health Insurance Marketplace or state-based exchanges that were established as part of the Affordable Care Act (ACA) (38). The other sources category for private health insurance includes plans obtained through state or local government or community programs, school, parent, other relative, other source not specified, and those who did not respond to the question asking about the source of their private coverage (refused, not ascertained, and don't know). Among people younger than age 65, the percentages with private coverage were 64.3% in 2019 and 2020, 65.4% in 2021, 64.0% in 2022, and 65.1% in 2023 (17).

Selected sociodemographic characteristics

Sociodemographic characteristics presented in this report include sex, age (0–17 and 18–64), race and Hispanic origin, family income, family education, urbanization level, and source of private coverage.

Race and Hispanic origin—Adults were classified into five race and Hispanic-origin groups: Asian non-Hispanic (subsequently, Asian), Black non-Hispanic (subsequently, Black), White non-Hispanic (subsequently, White), other and multiple races non-Hispanic (subsequently, other and multiple races), and Hispanic. Adults categorized as Hispanic may be of any race or combination of races. Adults categorized as Asian, Black, or White indicated one race only. Non-Hispanic adults of other or multiple races who did not identify as Asian, Black, White, or Hispanic, or who identified as more than one race, are combined into the other and multiple races category.

Family income as a percentage of federal poverty level (*FPL*)—Derived from the family's income in the previous calendar year and family size using the U.S. Census Bureau's poverty thresholds (39). The 2019–2023 NHIS imputed income files using multiple imputation methods were used to create the poverty levels (40–44). Family income as a percentage of FPL is categorized as: less than 139% FPL, 139%–250% FPL, 251%–400% FPL, and greater than 400% FPL.

Family education level—Based on years of school completed or the highest degree obtained among all adults within a family. The high school diploma category includes those who obtained a GED.

Urbanization level—In this report, urbanization level is measured using a condensed categorization of the National Center for Health Statistics urban–rural classification scheme (45,46). This scheme is based on metropolitan statistical area status defined by the Office of Management and Budget according to published standards that are applied to U.S. Census Bureau data. This report condenses the National Center for Health Statistics urban–rural classification into four categories: large central metropolitan (similar to inner cities), large fringe metropolitan (similar to suburbs), medium and small metropolitan, and nonmetropolitan (46,47). Large metropolitan areas have populations of 1 million or more. Metropolitan areas with populations of less than 1 million were classified as medium (250,000–999,999 population) or small (less than 250,000 population) (47).

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Disease Control and Prevention
National Center for Health Statistics
3311 Toledo Road, Room 4551, MS P08
Hyattsville, MD 20782–2064

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