
National Health Statistics Reports

Number 144 ■ July 15, 2020

Selected Financial Burdens of Health Care Among Families With Older Adults, by Family Composition: United States, 2017–2018

by Robin A. Cohen, Ph.D., and Maria A. Villarroel, Ph.D.

Abstract

Objective—This report describes how problems paying medical bills and forgone medical care vary by family composition among families with at least one older adult (aged 65 and over).

Methods—Data from families in the 2017–2018 National Health Interview Survey that included at least one older adult were analyzed ($n = 19,471$). Bivariate and multivariate analyses, adjusted for selected family characteristics that may put families at financial risk, were conducted for both outcome measures and shown by family composition. The family compositions examined were one older adult living alone, two older adults, one younger (aged 18–64) and one older adult, three or more adults (where at least one was an older adult), and two or more adults (where at least one was an older adult) and at least one child (under age 18 years).

Results—About 8.6% of families with older adults experienced problems paying medical bills, and 8.9% had forgone medical care. The most common composition for older-adult families was one older adult living alone (39.7%). Older-adult families consisting of only two older adults were the least likely to have experienced problems paying medical bills (4.0%) and to have forgone medical care (3.8%) compared with other family compositions. Older-adult families with at least one child were the most likely to experience problems paying medical bills (21.3%) and to have forgone medical care (18.4%). After adjusting for selected family characteristics in multivariate analyses, the odds of experiencing problems paying medical bills and forgone medical care weakened for all family compositions but remained significantly lower for families with two older adults.

Conclusion—Among families with older adults, financial burdens of medical care vary based on family composition.

Keywords: medical bills • food insecurity • living arrangement • disability • poverty • National Health Interview Survey

Introduction

Living arrangements affect the financial status of older adults (those aged 65 and over). Research shows that older adults living with other persons in a household were more likely to describe their financial situation as “live comfortably” or able to “meet basic expenses with a little left over for extras” compared with older adults living alone (1). In contrast, those living alone were more likely to describe their financial situation as “just meet basic expenses” or not having enough to meet basic expenses (1). The presence of multiple family members in the home may help mitigate expenses by sharing bills or providing caregiving or home maintenance services at no additional expense to family members (2). Sharing financial resources also may offer financial stability to the family. For example, some reports showed that multigenerational households were more likely to have lower median incomes than households of other compositions but were less likely to live in poverty (3).

Financial stability has been associated with one’s ability to pay medical expenses (4,5). It has been estimated that 3 in 10 adults who experienced problems paying medical



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics



bills were unable to pay for necessities like food, heat, or rent (4). The inability to pay medical bills and accrued medical expenses can leave families in financial struggle and debt, especially families with low to moderate incomes. Findings from the National Health Interview Survey (NHIS) indicated that adults under age 65 who were living below the poverty level were more than three times as likely to have medical bills that they were unable to pay at all compared with those who were not poor (5). While poverty thresholds are based on family income, family size, and family composition, there remains a limited understanding about how problems paying medical bills may vary by family composition.

One family member who contributes to the bulk of financial burden for medical care may place the entire family's ability to pay medical bills and overall financial well-being at risk. A 2012 analysis of NHIS data found that 27% of U.S. families experienced financial burdens of medical care (6). Moreover, families with children were more likely to experience problems paying medical bills, including having medical bills that they were unable to pay at all and paying medical bills over time, compared with families of either only one adult or multiple adults and no children. This study also found that families with lower incomes were more likely to experience problems paying medical bills (6). However, the association between the presence of children in the family and poverty status was not explored. Additionally, the relationship between living arrangements and poverty status and its effect on financial burden of care has not been examined among families with older adults.

The United States is experiencing considerable growth in its older adult population (7). By 2030, the population of U.S. older adults is expected to reach 73 million, an increase of 23% from 2020, accounting for 20% of the total population (7,8). In addition to this increase, the living arrangements of older adults are changing. In 1960, four out of five older adults lived with others (81%), while in 2014, two out of three older women (68%) and four out of five older men (82%) lived with

others (1,9). Among both older men and women, living with a spouse declines with age, while living alone or in other living arrangements increases with age (10). Overall, more older adults are living either alone or in multigenerational households (1).

This report examines problems paying medical bills and forgone medical care (delaying or not getting needed medical care due to cost) among families with at least one older adult (aged 65 and over) by family composition using NHIS data. For this report, a family can consist of an individual or group of two or more individuals.

Methods

Data source

Data from the 2017 and 2018 NHIS were combined to generate the estimates presented in this report. NHIS is a multipurpose health survey conducted continuously throughout the year by the National Center for Health Statistics (NCHS). NHIS collects information about the health and health care of the civilian noninstitutionalized U.S. population. Interviews were conducted in respondents' homes, but follow-ups to complete interviews may be conducted over the telephone. NHIS consists of a core set of questions that remain relatively unchanged from year to year and supplemental questions that are not asked every year. Through 2018 (NHIS was redesigned in 2019; visit the website at: https://www.cdc.gov/nchs/nhis/2019_quest_redesign.htm for more details), the survey consisted of four main components: Household composition, Family, Sample Adult, and Sample Child. Although active-duty military personnel are not eligible for selection for the Sample Adult and Sample Child components, basic information on active-duty military family members is collected as part of the Household composition and Family components of the survey, and these adults are included as family members in NHIS.

Only information from the Household composition and Family components was used for these analyses. The Household composition section

collects basic demographic and relationship information about all members within a household. The Family component collects demographic, health insurance, and basic health information about all family members from a single family member (the "family respondent"). Persons living alone or only with other nonrelatives (e.g., roommates) are considered one-person families. Multiple families may live within a household. NHIS defines a household as a sampling unit address. The average household response rate for 2017–2018 was 65.4%, with a conditional family response rate of 98.8%, resulting in a family response rate of 64.6% (11). More information on the survey is available from:

<https://www.cdc.gov/nchs/nhis.htm>.

Family composition

NHIS defines a family as an individual or a group of two or more persons related by birth, marriage, cohabitation, or adoption who are living together in the same occupied housing unit (i.e., household). Although family composition and living arrangements are related descriptive terms, living arrangements is often a broader term inclusive of the relationship types (i.e., type of relative such as a spouse or daughter, and nonrelatives such as an unrelated roommate) among members of a household or to the head of the household (12). A family is determined based on the household rostering information. For this report, types of family composition are defined by the age of the persons included in a family. A family composition measure was constructed by using the number of children (under age 18 years), younger adults (aged 18–64), and older adults (aged 65 and over) to classify older-adult families into mutually exclusive categories. In the family file, each family has a unique identifier to differentiate within and between households (11). For this analysis, the following family compositions were examined: (1) only one older adult, (2) two older adults, (3) one older adult and one younger adult, (4) three or more adults, at least one being an older adult, and (5) two or more adults with at least one older adult and at

least one child. A sixth category of at least one older adult and other types of family relationships is shown only in Figure 1 for descriptive purposes and not analyzed further. Less than 2% of older adults lived with unrelated persons (e.g., a roommate). In these cases, the unrelated person(s) would be considered a separate family. These separate families were included in the analysis if they contained members who were aged 65 and over.

Measurement of financial burdens of health care

Financial burdens of health care were examined using two separate outcome measures: forgone care (delayed or did not get needed medical care due to cost) in the past 12 months and problems paying medical bills in the past 12 months. The family respondent provided responses for both outcomes. Forgone care was based on a “yes” response to at least one of two questions: “During the past 12 months, [have you delayed seeking medical care/has medical care

been delayed for anyone in the family] because of worry about the cost?” and “During the past 12 months, was there any time when [you/someone in the family] needed medical care, but did not get it because [you/the family] couldn’t afford it?” Problems paying medical bills was based on the question, “In the past 12 months, did [you/anyone in the family] have problems paying or were unable to pay any medical bills? Include bills for doctors, dentists, hospitals, therapists, medication, nursing homes, or home care.”

Family characteristics

Other factors may contribute to financial burdens of health care for older-adult families. For example, food insecurity may be the result of a financial tradeoff for other pressing basic needs. Among low-income households, those with older adults are more likely to experience food insecurity periodically throughout the year that is associated with higher heating and cooling expenses

than households without older adults (13). In addition, older adults are more likely to have a limitation in activities of daily living (ADLs) or a limitation in instrumental activities of daily living (IADLs) as age increases (14). Although ADLs and IADLs may or may not be a measure of disability, needing help with ADLs and IADLs may require additional financial resources for a family.

Nonuniform health insurance coverage by age may also contribute to financial burdens of health care. In 2018, less than 1.0% of older adults lacked health insurance compared with 12.5% of younger adults (15). The main reason for this difference is that almost all older adults are entitled to and covered by Medicare (16). Health insurance may help cover needed health care costs and prevent the financial burden of medical bills for families (5,17).

The marital status of an older adult may be associated with use of financial resources. Previous studies suggest that persons living alone may experience low income but fewer sources of financial burden (1,12). Among older-adult families comprised of only one older adult who were surveyed in NHIS, most consisted of older adults who were either widowed (51.3%) or divorced (31.0%) (Table). Less than 3% of older-adult families with only one person consisted of the older adult being married to a spouse not living in the household. However, among families with two older adults, more than 94% consisted of two older adults who were married to each other. For other older-adult family compositions, the percentages where the older adult was married to someone who also lived in the household ranged from 41.9% for older-adult families with two or more adults (where at least one was an older adult) plus at least one child, to 63.2% among families with three or more adults (where at least one was an older adult).

In this analysis, the following family characteristics were included in multivariate models: a family member was uninsured, family food insecurity, the presence of a family member with a limitation in ADLs, the presence of an adult family member with a limitation in IADLs, older-adult marital status, and family poverty level. A family

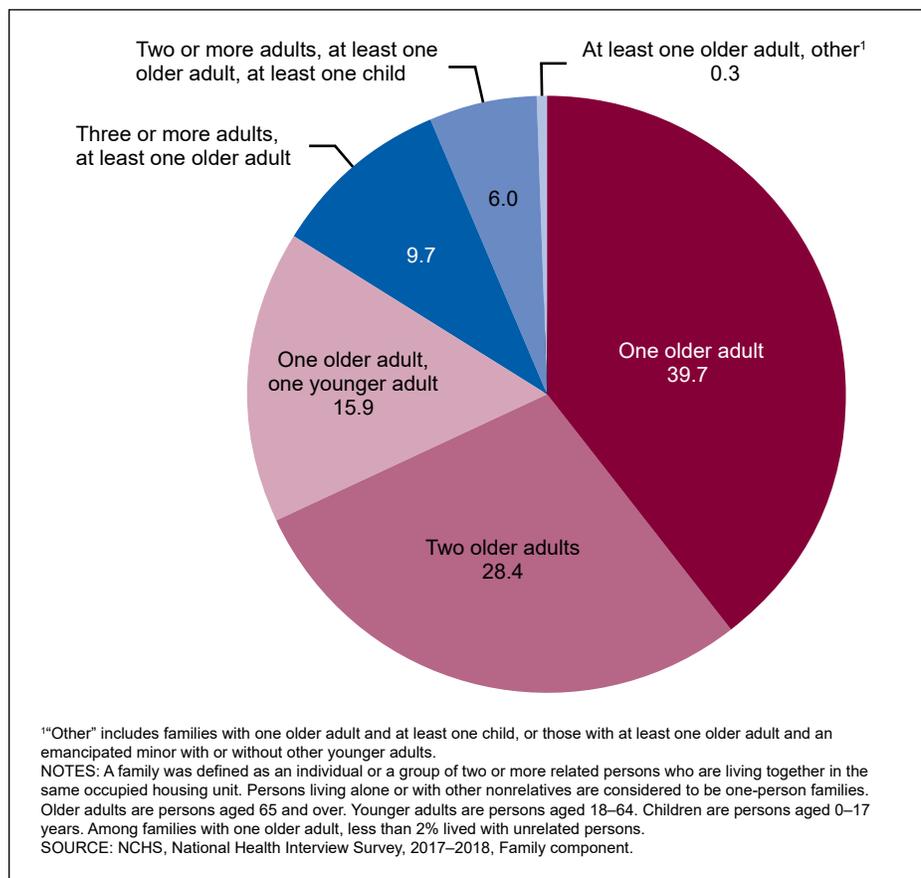


Figure 1. Percent distribution of family composition among older-adult families: United States, 2017–2018

Table. Percentage of older-adult families, by marital status of older adults and family composition: United States, 2017–2018

Marital status of older adults	One older adult	Two older adults	One older adult, one younger adult	Three or more adults, at least one older adult	Two or more adults, at least one older adult, at least one child
Married, spouse in household	–	94.2	58.0	63.2	41.9
Married, spouse not in household	2.8	0.1	0.9	1.5	2.4
Widowed	51.3	2.0	22.5	28.2	32.0
Divorced	31.0	1.1	10.1	8.1	15.4
Separated	2.6	0.1	1.0	1.1	3.5
Never married	11.6	1.1	2.2	4.5	5.2
Living with partner	0.0	3.0	5.3	2.0	1.2
Unknown	0.7	–	0.1	0.3	0.3

– Quantity zero.

NOTES: A family was defined as an individual or a group of two or more related persons who are living together in the same occupied housing unit. Persons living alone or with other nonrelatives are considered to be one-person families. Older adults are persons aged 65 and over. Younger adults are persons aged 18–64. Children are persons aged 0–17 years. Among families with one older adult, less than 2% lived with unrelated persons. Data may not total 100% due to rounding, and more than one type of marital status may be present within a family.

SOURCE: NCHS, National Health Interview Survey, 2017–2018, Family component.

member was uninsured if, at the time of interview, he or she did not have any private health insurance, Medicare, Medicaid, Children’s Health Insurance Program (CHIP), state-sponsored or other government-sponsored health plan, or military plan. A family member was also considered to be uninsured if he or she had only Indian Health Service coverage or had only a private plan that paid for one type of service, such as accidents or dental care.

Families were food insecure if they experienced either low food security or very low food security in the past 30 days. Food insecurity was based on an affirmative response to 1 or more of 10 questions from a module developed by the U.S. Department of Agriculture (USDA) that is included in the NHIS Family component. For information about creating food security scores, see the NHIS survey description document (11). For information about USDA’s food security research and standard procedures for measuring food insecurity and hunger in the United States, see: <https://www.fns.usda.gov/sites/default/files/FSGuide.pdf>.

A person with a limitation in ADLs was defined as an individual who, because of a physical, mental, or emotional problem, needs the help of other persons with personal care needs such as eating, bathing, dressing, or getting around inside the home. A person with a limitation in IADLs was defined as an individual who, because of a physical, mental, or emotional problem, needs the help of other persons in handling routine needs such as everyday household chores, necessary business, shopping, or getting around for other purposes. The question

measuring ADL limitations was asked about all family members aged 3 years and over, and the question measuring IADL limitations was asked about all family members aged 18 years and over. Families were classified as having any member with a limitation in ADLs or an adult family member with a limitation in IADLs.

Families were also classified as having any older-adult family member who was married (with the spouse either living in the household or not living in the household). Measures not available on the family file, such as ADL, IADL, and marital status, were extracted from the person file by producing counts of the number of persons or older adults (for marital status) within each family who met the criteria for a measure. The person-file variables were derived from the sections making up the Family component of NHIS. The information in the Family component was collected for all family members. Any adult family members who were present at the time of the interview were invited to participate; information regarding adults not participating in the interview, and about all family members under age 18 years, was provided by a knowledgeable adult member of the family. If more than one family was in the household, then these procedures were followed for each family in the household (11). These additional counts were merged into the family file for analysis.

Poverty status is based on the federal poverty level (FPL), derived from the family income and family size using the U.S. Census Bureau’s poverty thresholds for the previous calendar year. For more

information, see: <https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html>. Family income in NHIS was imputed for 20.7% of persons in 2017 (18) and for 19.4% in 2018 (19) for whom income was unknown. Because the imputed income files are person-level files, family imputed income files were extracted from the person-level files, and these extracted files were merged into the family files for this analysis.

Statistical analyses

Information was collected for 63,466 families on 150,963 persons during 2017–2018. A total of 19,471 families had at least one family member aged 65 and over. A small number of older adults living in “other family compositions” were excluded from the analysis due to the small number of these groups, except in the overall description of older-adult family composition. Examples of other family compositions include one older adult living with an emancipated minor or one older adult living with a child or children.

Estimates in this report were calculated using the family sample weights and so, are representative of U.S. civilian noninstitutionalized families. Data weighting procedures are described in more detail elsewhere (11). Point estimates were calculated using SUDAAN 11.0.0 software (20) to account for the complex sample design of NHIS. Taylor series linearization was chosen for variance estimation. All estimates in this report meet the NCHS standards of reliability as specified in

“National Center for Health Statistics Data Presentation Standards for Proportions” (21). Differences between percentages were evaluated using two-sided significance tests at the 0.05 level.

This report first presents the distribution of older-adult family compositions (Figure 1). Next, family characteristics by family composition are shown in Table 1. The unadjusted estimates for problems paying for medical care and forgone medical care in the past 12 months are examined by older-adult family composition in Figure 2 and Figure 3. Finally, results from univariate and multivariate models are presented (Table 2 and Table 3), using the SUDAAN procedure for logistic regression (20). Multivariate models determine whether differences in family composition in problems paying medical bills and forgone medical care persisted after adjusting for selected family characteristics including poverty

status, the presence of at least one family member with an ADL limitation, the presence of at least one family member with an IADL limitation, family food insecurity, the presence of at least one family member who was uninsured, and at least one older adult who was married. Adjusted odds ratios (AORs) were generated from these logistic regression models, and 95% confidence intervals (CIs) are presented for each AOR. The reference group for these models was older-adult families consisting of two older adults.

Results

Family composition

Almost 37 million families included at least one person aged 65 and over. Among these older-adult families, 39.7% were one-person families (Figure 1). Other family compositions of older-adult

families included two older adults (28.4%), one older adult and a younger adult (15.9%), three or more adults (where at least one was an older adult) (9.7%), two or more adults (where at least one was an older adult) plus at least one child (6.0%), and another composition (0.3%).

Family characteristics by family composition

Among older-adult families, 19.2% had incomes below 139% of the FPL, 22.7% had incomes from 139% to 250% of the FPL, 21.9% had incomes above 250% to 400% of the FPL, and 36.3% had incomes above 400% of the FPL (Table 1). Families with only two older adults were more likely to have incomes above 400% of the FPL (50.0%) compared with families with only one older adult (23.0%), families with three or more adults (39.7%), and families with two or more adults and at least one child

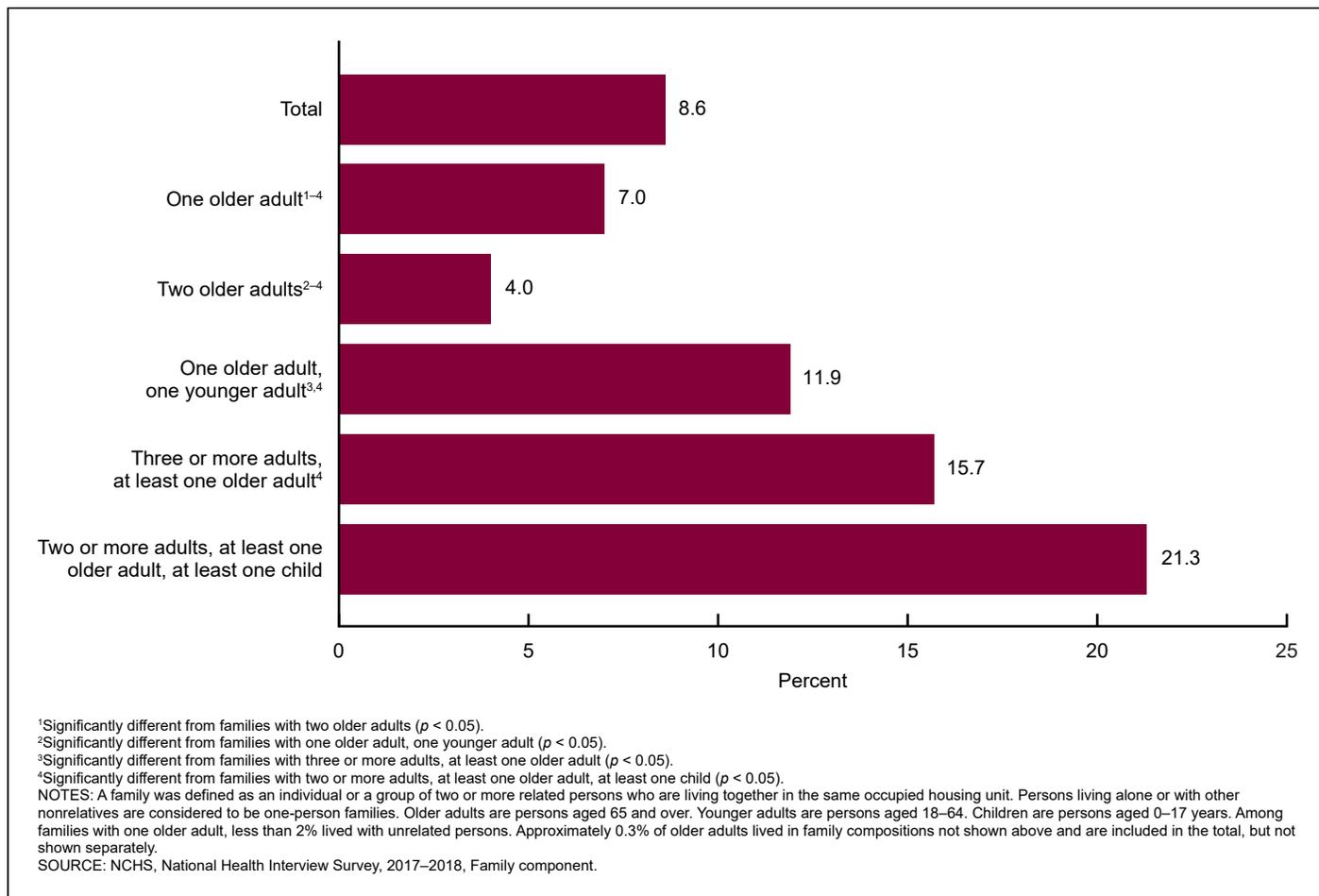


Figure 2. Percentage of older-adult families with problems paying medical bills in the past 12 months, by family composition: United States, 2017–2018

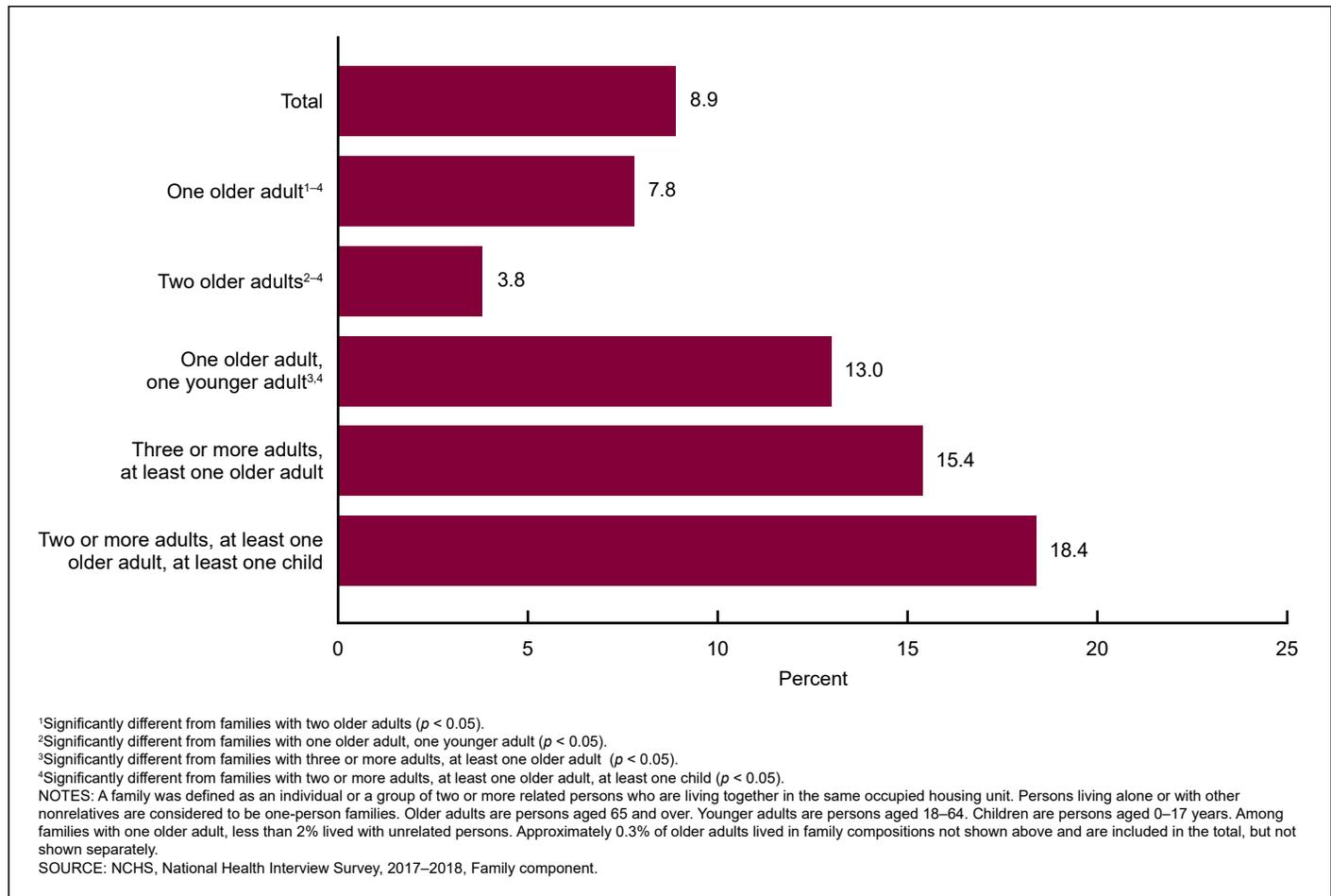


Figure 3. Percentage of older-adult families with forgone medical care in the past 12 months, by family composition: United States 2017–2018

(24.9%). Families with only one older adult (29.3%) and those with two or more adults and at least one child (27.1%) were most likely to have incomes below 139% of the FPL.

Nearly 10% of older-adult families had at least one family member with a limitation in ADLs (9.7%), and 16.0% of older-adult families had at least one adult family member with a limitation in IADLs. Families with three or more adults were the most likely to have a family member with a limitation in ADLs (21.7%) and an adult family member with a limitation in IADLs (26.7%) compared with other family compositions.

About 11% of older-adult families experienced food insecurity in the past 30 days (10.9%). Families with two older adults were least likely to experience food insecurity (4.9%) compared with other family compositions. Older-adult families that also included children were the most likely to experience food insecurity (18.5%).

Almost 7% of older-adult families had a family member who was uninsured (6.7%). Having at least one family member without health insurance coverage was lowest in families with only one older adult and those with only two older adults (0.6% and 0.5%, respectively). Among families with older adults, approximately one in four of those with three or more adults (26.5%) and those that included children (27.5%) had a family member who was uninsured.

Problems paying medical bills

During 2017–2018, 8.6% of older-adult families in the United States experienced problems paying medical bills in the past 12 months (Figure 2). The highest percentage of older-adult families experiencing problems paying medical bills was among those consisting of at least one older adult and children (21.3%), followed by those consisting

of three or more adults (15.7%), those with two adults where one was a younger adult (11.9%), those with one older adult (7.0%), and those with only two older adults (4.0%).

Unadjusted odds ratios (OR) showed that older-adult families with at least one older adult and children were 6.5 times as likely (OR 6.48, CI 5.24–8.01) as families with two older adults to have problems paying medical bills (Table 2). Compared with families with two older adults, families with three or more adults were 4.5 times as likely (OR 4.47, CI 3.65–5.48), families with one older adult and one younger adult were 3.2 times as likely (OR 3.25, CI 2.71–3.91), and families with one older adult were almost 2 times as likely (OR 1.80, CI 1.51–2.14) to have problems paying medical bills. After adjusting for selected family characteristics in multivariate analysis, each association weakened.

Older-adult families with at least one older adult and children (AOR 3.33,

CI 2.58–4.29), families with three or more adults (AOR 2.77, CI 2.20–3.49), and families with one older adult and one younger adult (AOR 2.27, CI 1.84–2.79) remained more than twice as likely as families with two older adults to have problems paying medical bills (Table 2). After adjusting for other sources of financial burden, families with only one older adult (AOR 0.96, CI 0.75–1.22) were as likely as families with two older adults to have problems paying medical bills.

Forgone medical care due to cost

Among older-adult families in the United States, 8.9% had forgone medical care due to cost in the past 12 months (Figure 3). Families with three or more adults (15.4%) and families with two or more adults and at least one child (18.4%) had the highest prevalence of forgone medical care. The percentage of forgone care among older-adult families was 13.0% among families with one older adult and one younger adult, 7.8% among families with only one older adult, and was lowest among families with two older adults (3.8%).

Unadjusted ORs showed that older-adult families with at least one older adult and children were nearly 5.7 times as likely to have forgone medical care due to cost (OR 5.68, CI 4.55–7.09), compared with families with two older adults (Table 3). Compared with families with two older adults, families with three or more adults were 4.6 times as likely to have forgone care (OR 4.59, CI 3.73–5.66), while those families with one older adult and one younger adult (OR 3.74, CI 3.12–4.49) and families with only one older adult (OR 2.13, CI 1.78–2.53) were 2 to 3 times as likely. After adjusting for selected family characteristics, the odds of forgone medical care due to cost remained significant. In multivariate analysis, families with older adults and children (AOR 2.72, CI 2.10–3.51), three or more adults (AOR 2.59, CI 2.04–3.29), and one older adult and one younger adult (AOR 2.66, CI 2.17–3.25) were more than twice as likely as families with two older adults to have forgone medical care. Families with one older adult were about 1.5 times as likely to have forgone

care (AOR 1.48, CI 1.17–1.86) compared with families with two older adults.

Summary

This report shows variation in financial burdens of medical care by family composition of older-adult families. Problems paying medical bills were experienced more commonly by families with two or more adults and at least one child, characteristic of a multigenerational family (i.e., families comprised of children and older and younger adults), than other types of older-adult families. Multigenerational families and older-adult families with three or more adults also experienced a higher percentage of forgone medical care than other older-adult families. However, income distributions for these two types of family compositions differed. More than one-half of the multigenerational families had incomes at or below 250% of the FPL (51.9%), while approximately 65% of older-adult families with three or more adults had incomes above 250% of the FPL. Even after adjusting for FPL and other financial-related variables, multigenerational families and older-adult families with three or more adults were more than twice as likely to be affected by the burden of medical care compared with families with two older adults.

Previous literature found that forming complex family arrangements may be a strategy for coping with complicated financial strains, including poverty, or may offer a financial safety net for some financial barriers or help the family share other resources such as helping a member with ADLs (2,3). However, previous research did not examine medical care expenses, and NHIS is a cross-sectional survey that does not ask about reasons for multigenerational family formation. Although the presence of a family member with ADL or IADL limitations was more likely in more complex family compositions, differences in problems paying medical bills and forgone medical care by family composition were similar from adjusted models that included and excluded ADLs and IADLs. However, because NHIS is a cross-sectional survey, it cannot be used to determine if the presence of an ADL or IADL

limitation necessitated a change in family composition to meet these needs. ADL or IADL limitations may impact a family's financial burden, but not necessarily due to family composition.

Based on an unadjusted model, families with one older adult were less likely to experience problems paying medical bills and forgone medical care than multigenerational families, families with three or more adults, and families with one older adult and one younger adult. However, families with one older adult were more likely than families with two older adults to have problems paying medical bills and forgone medical care. Older adults living alone had similar levels of income to those in multigenerational families, with more than one-quarter of these families living below 139% of the FPL, and about one in eight experiencing food insecurity. Previous studies suggest that persons living alone who are widowed or divorced may experience low income but fewer sources of financial burden (1,10). Previous research also suggests that these individuals are not sharing their resources with other household family members (1,3,10), so may have more control over how financial resources are spent. The results from the study presented in this report may partially support this hypothesis in that after controlling for sources of family financial burden and older-adult marital status, forgone medical care due to cost, but not problems paying medical bills, remained significantly higher for families with one older adult compared with families with two older adults.

The findings also show that families consisting of one older adult and one younger adult were more likely to experience financial burden of medical care compared with families with two older adults. Families with one younger adult and one older adult were more likely to have a family member who was uninsured compared with families with two older adults. This finding is consistent with a previous analysis of families without older adults that found that financial burden of medical care was greatest for those families where at least one family member was uninsured (6). The findings support the premise that older-adult families with different family

compositions experience different levels of financial barriers to medical care.

This analysis is not without limitations. First, it is not able to determine which medical services were not obtained due to cost, or the reasons for having problems paying medical bills. Additionally, because this analysis is based on a cross-sectional survey, it is not able to discern whether a more complex family structure was the result of medical care and other financial burdens, or if the complex family structure was in place and the burdens occurred subsequently.

This report, however, offers further insight into the financial burden experienced by older-adult families. The NHIS survey design through 2018 collected information on health insurance, financial burden, and food insecurity at the family level, allowing for analyses at both the family and individual levels.

References

1. Stepler R. Smaller share of women ages 65 and older are living alone: More are living with spouse or children. Pew Research Center. 2016.
2. Committee on Family Caregiving for Older Adults; Board on Health Care Services; Health and Medicine Division; National Academies of Sciences, Engineering, and Medicine. Families caring for an aging America. Washington, DC: National Academies Press. 2016.
3. Kochlar R, Cohn D. Fighting poverty in a tough economy, Americans move in with their relatives. Pew Research Center. 2011.
4. Rustgi S, Doty MM, Collins SR, Kriss JL. Losing ground: How the loss of adequate health insurance is burdening working families—Findings from the Commonwealth Fund biennial health insurance surveys, 2001–2007. Commonwealth Fund. 2008. Available from: <https://www.commonwealthfund.org/publications/fund-reports/2008/aug/losing-ground-how-loss-adequate-health-insurance-burdening>.
5. Zammitti EP, Cohen RA. Table: Percentage (and standard error) of persons under age 65 who were in families that currently have medical bills that they are unable to pay at all, by selected demographic characteristics and year: United States, 2011–June 2015. National Center for Health Statistics. 2015. Available from: https://www.cdc.gov/nchs/data/nhis/earlyrelease/bills_unable_to_pay_at_all_2011_2015.pdf.
6. Cohen RA, Kirzinger WK. Financial burden of medical care: A family perspective. NCHS Data Brief, no 142. Hyattsville, MD: National Center for Health Statistics. 2014.
7. Ortman JM, Velkoff VA, Hogan H. An aging nation: The older population in the United States. Current Population Reports, P25–1140. U.S. Census Bureau. 2014.
8. U.S. Census Bureau. 2017 national population projections tables: Main series. Projections by age and sex composition of the population. 2017. Available from: <https://www.census.gov/data/tables/2017/demo/popproj/2017-summary-tables.html>.
9. Congressional Budget Office. Changes in the living arrangements of the elderly: 1960–2030. 1988.
10. Vespa J, Lewis JM, Kreider RM. America's families and living arrangements: 2012. Current Population Reports, P20–570. U.S. Census Bureau. 2013.
11. National Center for Health Statistics. 2018 National Health Interview Survey (NHIS) public use data release: Survey description. 2019.
12. Johnson Jr JH, Appold SJ. U.S. older adults: Demographics, living arrangements, and barriers to aging in place. Kenan Institute of Private Enterprise. 2017. Available from: https://www.kenaninstitute.unc.edu/wp-content/uploads/2017/06/AgingInPlace_06092017.pdf.
13. Nord M, Kantor LS. Seasonal variation in food insecurity is associated with heating and cooling costs among low-income elderly Americans. *J Nutr* 136(11):2939–44. 2006.
14. Lucas JW, Benson V. Tables of summary health statistics for the U.S. Population: 2018 National Health Interview Survey. National Center for Health Statistics. 2019. Available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/NHIS/SHS/2018_SHS_Table_P-3.pdf.
15. Cohen RA, Terlizzi EP, Martinez ME. Health insurance coverage: Early release of estimates from the National Health Interview Survey, 2018. National Center for Health Statistics. 2019. Available from: <https://www.cdc.gov/nchs/data/nhis/earlyrelease/insur201905.pdf>.
16. Medicare Payment Advisory Commission. A data book: Health care spending and the Medicare program. 2019. Available from: http://www.medpac.gov/docs/default-source/data-book/jun19_databook_entirereport_sec.pdf?sfvrsn=0.
17. Villarroel MA, Cohen RA. Health insurance continuity and health care access and utilization, 2014. NCHS Data Brief, no 249. Hyattsville, MD: National Center for Health Statistics. 2016.
18. National Center for Health Statistics. Multiple imputation of family income and personal earnings in the National Health Interview Survey: Methods and examples. 2018. Available from: <https://www.cdc.gov/nchs/data/nhis/tecdoc17.pdf>.
19. National Center for Health Statistics. Multiple imputation of family income and personal earnings in the National Health Interview Survey: Methods and examples. 2019. Available from: <https://www.cdc.gov/nchs/data/nhis/tecdoc18.pdf>.
20. RTI International. SUDAAN (Release 11.0.0) [computer software]. 2012.
21. Parker JD, Talih M, Malec DJ, Beresovsky V, Carroll M, Gonzalez Jr JF, et al. National Center for Health Statistics data presentation standards for proportions. National Center for Health Statistics. Vital Health Stat 2(175). 2017.

Table 1. Percentages (and 95% confidence intervals) of older-adult families with selected characteristics, by family composition: United States, 2017–2018

Characteristic	All families with older adults	One older adult	Two older adults	One older adult, one younger adult	Three or more adults, at least one older adult	Two or more adults, at least one older adult, at least one child
Poverty status						
Below 139% of the federal poverty level	19.2 (18.4–20.0)	†‡§ 29.3 (27.8–30.7)	‡§¶ 7.9 (7.1–8.8)	¶ 13.2 (11.6–14.9)	¶ 14.6 (12.9–16.4)	27.1 (24.1–30.3)
139% to 250% of the federal poverty level	22.7 (22.0–23.4)	†‡§¶ 27.8 (26.7–29.0)	§¶ 18.3 (17.1–19.6)	§¶ 17.9 (16.4–19.5)	¶ 20.8 (18.8–23.0)	24.8 (22.2–27.4)
Above 250% to 400% of the federal poverty level	21.9 (21.2–22.6)	†§¶ 19.9 (18.8–21.1)	‡ 23.7 (22.5–25.0)	§ 21.0 (19.4–22.7)	24.9 (22.6–27.3)	23.2 (20.7–26.0)
Above 400% of the federal poverty level	36.3 (35.4–37.2)	†‡§ 23.0 (21.9–24.1)	§¶ 50.0 (48.4–51.7)	§¶ 47.9 (45.7–50.0)	¶ 39.7 (37.2–42.3)	24.9 (22.0–27.8)
Family characteristic						
At least one family member who is limited in ADL ¹	9.7 (9.3–10.2)	§¶ 7.8 (7.1–8.6)	§¶ 8.3 (7.5–9.1)	§¶ 8.3 (7.2–9.4)	¶ 21.7 (19.7–23.8)	13.8 (11.7–16.0)
At least one family member who is limited in IADL ²	16.0 (15.3–16.6)	†‡§ 16.9 (15.9–17.9)	‡§¶ 11.5 (10.6–12.4)	§¶ 14.2 (12.8–15.7)	¶ 26.7 (24.5–28.9)	18.3 (16.0–20.9)
Food insecurity ³	10.9 (10.3–11.5)	†¶ 12.4 (11.5–13.3)	‡§¶ 4.9 (4.2–5.5)	¶ 13.0 (11.7–14.4)	¶ 13.6 (11.9–15.4)	18.5 (16.1–21.0)
At least one family member who is uninsured ⁴	6.7 (6.3–7.1)	‡§¶ 0.6 (0.4–0.8)	‡§¶ 0.5 (0.4–0.8)	§¶ 13.0 (11.7–14.4)	26.5 (24.4–28.7)	27.5 (24.7–30.5)

† Significantly different from two older adults.

‡ Significantly different from one older adult, one younger adult.

§ Significantly different from three or more adults, at least one older adult.

¶ Significantly different from two or more adults, at least one older adult, at least one child.

¹ADL is activity of daily living. A person with an ADL limitation is defined as an individual who, because of a physical, mental, or emotional problem, needs the help of other persons with personal care needs such as eating, bathing, dressing, or getting around inside the home. This question is asked about all family members aged 3 years and over.²IADL is instrumental activity of daily living. A person with an IADL limitation is defined as an individual who, because of a physical, mental, or emotional problem, needs the help of other persons in handling routine needs such as everyday household chores, necessary business, shopping, or getting around for other purposes. This question is asked about all family members aged 18 years and over.³Refers to food insecurity in the past 30 days. Families were considered to be food insecure if they experienced either low food security or very low food security. The 10 questions on the National Health Interview Survey Family Food Security Supplement can be used to determine the food security status of families as recommended by the U.S. Department of Agriculture (USDA), Economic Research Service. See <https://www.fns.usda.gov/sites/default/files/FSGuide.pdf>, for more information about the USDA's food security research and standard procedures for measuring food insecurity and hunger in the United States. See the survey description document (reference 11 in this report) for a discussion about creating food security scores.⁴Persons were defined as uninsured if, at the time of interview, they did not have any private health insurance, Medicare, Medicaid, Children's Health Insurance Program (CHIP), state-sponsored or other government-sponsored health plan, or military plan. Persons were also defined as uninsured if they had only Indian Health Service coverage or had only a private plan that paid for one type of service, such as accidents or dental care.

NOTES: A family was defined as an individual or a group of two or more related persons who are living together in the same occupied housing unit. Persons living alone or with other nonrelatives are considered to be one-person families. Older adults are persons aged 65 and over. Younger adults are persons aged 18–64. Children are persons aged 0–17 years. Among families with one older adult, less than 2% lived with unrelated persons.

SOURCE: NCHS, National Health Interview Survey, 2017–2018, Family component.

Table 2. Unadjusted and adjusted odds ratios for problems paying medical bills in the past 12 months among older-adult families: United States, 2017–2018

Family composition	Unadjusted		Adjusted ¹	
	Odds ratio	95% confidence interval	Odds ratio	95% confidence interval
Two older adults (reference)	1.00	...	1.00	...
One older adult	†1.80	1.51–2.14	0.96	0.75–1.22
One older adult, one younger adult	†3.25	2.71–3.91	†2.27	1.84–2.79
Three or more adults, at least one older adult, no children	†4.47	3.65–5.48	†2.77	2.20–3.49
Two or more adults, at least one older adult, at least one child	†6.48	5.24–8.01	†3.33	2.58–4.29

... Category not applicable.

† Significantly different from the reference group ($p < 0.05$).

¹Odds ratios were adjusted for selected family characteristics including poverty status, any family member with a limitation in activities of daily living, any family member with a limitation in instrumental activities of daily living, food insecurity in the past 30 days, at least one family member who is uninsured, and at least one older adult who is married (spouse may either be present or not present in the household).

NOTES: Problems paying medical bills in the past 12 months was determined by a "yes" response to the question, "In the past 12 months, did [you/anyone in the family] have problems paying or were unable to pay any medical bills? Include bills for doctors, dentists, hospitals, therapists, medication, nursing homes, or home care." A family was defined as an individual or a group of two or more related persons who are living together in the same occupied housing unit. Persons living alone or with other nonrelatives are considered to be one-person families. Older adults are persons aged 65 and over. Younger adults are persons aged 18–64. Children are persons aged 0–17 years. Among families with one older adult, less than 2% lived with unrelated persons.

SOURCE: NCHS, National Health Interview Survey, 2017–2018, Family component.

Table 3. Unadjusted and adjusted odds ratios for forgone medical care in the past 12 months among older-adult families: United States, 2017–2018

Family composition	Unadjusted		Adjusted ¹	
	Odds ratio	95% confidence interval	Odds ratio	95% confidence interval
Two older adults (reference)	1.00	...	1.00	...
One older adult	†2.13	1.78–2.53	†1.48	1.17–1.86
One older adult, one younger adult	†3.74	3.12–4.49	†2.66	2.17–3.25
Three or more adults, at least one older adult, no children	†4.59	3.73–5.66	†2.59	2.04–3.29
Two or more adults, at least one older adult, at least one child	†5.68	4.55–7.09	†2.72	2.10–3.51

... Category not applicable.

† Significantly different from the reference group ($p < 0.05$).

¹Odds ratios were adjusted for selected family characteristics including poverty status, any family member with a limitation in activities of daily living, any family member with a limitation in instrumental activities of daily living, food insecurity in the past 30 days, at least one family member who is uninsured, and at least one older adult who is married (spouse may either be present or not present in the household).

NOTES: Forgone medical care due to cost in the past 12 months was determined by the questions, "During the past 12 months, [have you delayed seeking medical care/has medical care been delayed for anyone in the family] because of worry about the cost?" and "During the past 12 months, was there any time when [you/someone in the family] needed medical care, but did not get it because [you/the family] couldn't afford it?" A "yes" response to either of these questions indicated forgone care. A family was defined as an individual or a group of two or more related persons who are living together in the same occupied housing unit. Persons living alone or with other nonrelatives are considered to be one-person families. Older adults are persons aged 65 and over. Younger adults are persons aged 18–64. Children are persons aged 0–17 years. Among families with one older adult, less than 2% lived with unrelated persons.

SOURCE: NCHS, National Health Interview Survey, 2017–2018, Family component.

**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

FIRST CLASS MAIL
POSTAGE & FEES PAID
CDC/NCHS
PERMIT NO. G-284

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

For more NCHS NHSRs, visit:
<https://www.cdc.gov/nchs/products/nhsr.htm>.



National Health Statistics Reports ■ Number 144 ■ July 15, 2020

Suggested citation

Cohen RA, Villarroel MA. Selected financial burdens of health care among families with older adults, by family composition: United States, 2017-2018. National Health Statistics Reports; no 144. Hyattsville, MD: National Center for Health Statistics. 2020.

Copyright information

All material appearing in this report is in the public domain and may be reproduced or copied without permission; citation as to source, however, is appreciated.

National Center for Health Statistics

Brian C. Moyer, Ph.D., *Director*
Amy M. Branum, Ph.D., *Acting Associate
Director for Science*

Division of Health Interview Statistics

Stephen J. Blumberg, Ph.D., *Director*
Anjel Vahratian, Ph.D., M.P.H., *Associate
Director for Science*

For e-mail updates on NCHS publication releases, subscribe online at: <https://www.cdc.gov/nchs/email-updates.htm>.
For questions or general information about NCHS: Tel: 1-800-CDC-INFO (1-800-232-4636) • TTY: 1-888-232-6348
Internet: <https://www.cdc.gov/nchs> • Online request form: <https://www.cdc.gov/info>
DHHS Publication No. 2020-1250 • CS317259