

Characteristics of Office-based Physician Visits, 2016

Jill J. Ashman, Ph.D., Pinyao Rui, M.P.H., Titilayo Okeyode

Key findings

Data from the National Ambulatory Medical Care Survey

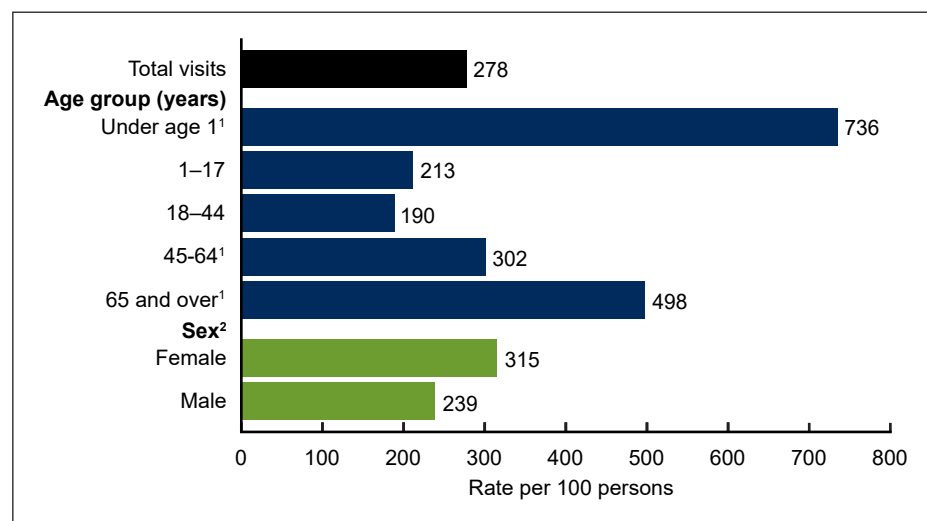
- In 2016, there were an estimated 278 office-based physician visits per 100 persons.
- The visit rate among females exceeded the rate for males, and the rates for both infants and older adults exceeded the rates for those aged 1–64 years.
- Private insurance was the primary expected source of payment for the majority of visits by children under age 18 and adults aged 18–64, whereas Medicare was the primary expected source of payment for the majority of visits by adults aged 65 and over.
- Compared with adults, a larger percentage of visits by children were for either preventive care or a new problem.
- Compared with children, a larger percentage of visits by adults included an imaging service that was ordered or provided.

In 2016, most Americans had a usual place to receive health care (86% of adults and 96% of children) (1,2). The majority of children and adults listed a doctor's office as the usual place they received care (1,2). In 2016, there were an estimated 883.7 million office-based physician visits in the United States (3,4). This report examines visit rates by age and sex. It also examines visit characteristics—including insurance status, reason for visit, and services—by age. Estimates use data from the 2016 National Ambulatory Medical Care Survey (NAMCS).

Do office-based physician visit rates vary by patient age and sex?

- In 2016, there were 278 office-based physician visits per 100 persons (Figure 1).

Figure 1. Visit rates, by selected demographics: United States, 2016



¹Significant difference in estimates among all age groups.

²Significant difference in estimates between females and males.

NOTES: Visit rates are based on the July 1, 2016, set of estimates of the civilian noninstitutionalized population of the United States, as developed by the Population Division, U.S. Census Bureau. Total visits includes all visits by patients of all ages. For more information, see the 2016 National Ambulatory Medical Care Survey Documentation, ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/Dataset_Documentation/NAMCS/doc2016.pdf. Access data table for Figure 1 at: https://www.cdc.gov/nchs/data/databriefs/db331_tables-508.pdf#1.

SOURCE: NCHS, National Ambulatory Medical Care Survey, 2016.



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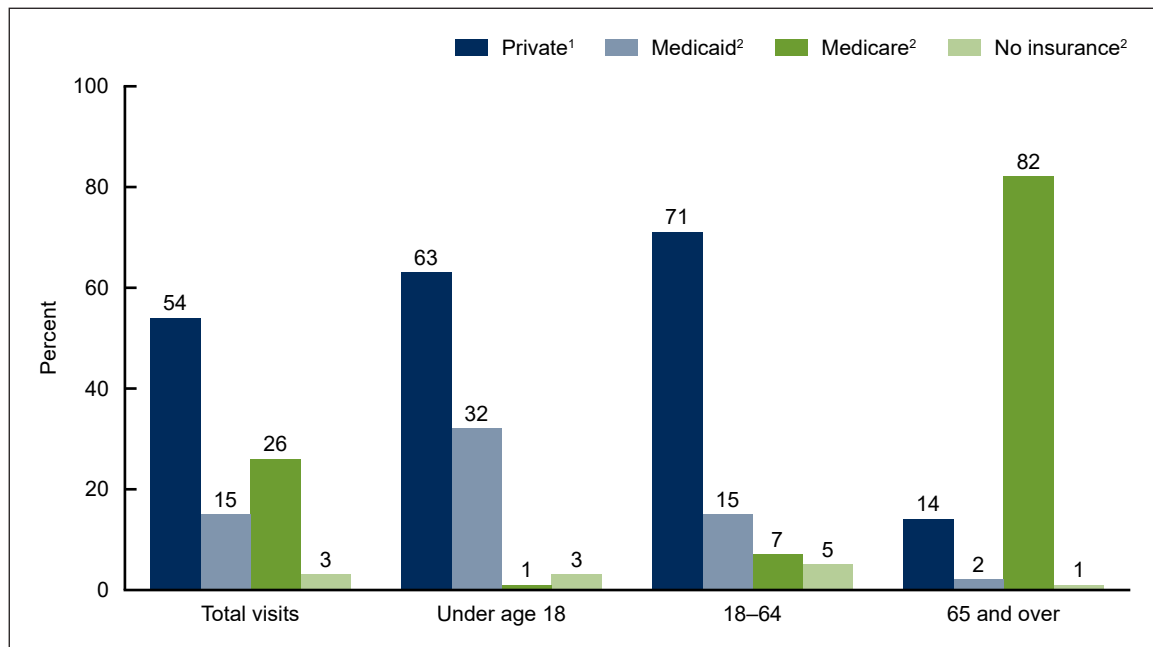


- The visit rate for both infants under 1 year of age (736 per 100 infants) and adults aged 65 and over (498 per 100 adults aged 65 and over) was higher than the rate for children aged 1–17 years (213 per 100 children aged 1–17 years), adults aged 18–44 (190 per 100 adults aged 18–44), and adults aged 45–64 (302 per 100 adults aged 45–64).
- The visit rate among females (315 visits per 100 females) was higher than the rate for males (239 visits per 100 males).

What was the primary expected source of payment at office-based physician visits, and did it vary by age?

- Private insurance was the primary expected source of payment at over one-half (54%) of all office-based physician visits, followed by Medicare (26%), Medicaid (15%), and no insurance (3%) (Figure 2).
- Private insurance was the primary expected source of payment for the majority of visits by children under age 18 years (63%) and adults aged 18–64 (71%), whereas Medicare was the primary expected source of payment for the majority of visits by adults aged 65 and over (82%).
- Medicaid as the primary expected source of payment decreased with increasing age, 32% among children, 15% among adults aged 18–64, and 2% among adults aged 65 and over.

Figure 2. Primary expected source of payment, by age: United States, 2016



¹Significant difference in estimates between those under age 65 and those aged 65 and over.

²Significant difference in estimates among all age groups.

NOTES: All sources of payment were combined into one mutually exclusive primary source of payment using the following hierarchy: Medicare, Medicaid or Children's Health Insurance Program, or other state-based program; private insurance; and no insurance. Total visits includes all visits by patients of all ages. No insurance is defined as having only self-pay, no charge, or charity as payment sources. Other sources of payment and missing or blank data are not included in this figure and represent 6.9% (weighted) of visits. Figures exclude 5.3% (weighted) of visits for which data were missing or blank. For more information, see the 2016 National Ambulatory Medical Care Survey documentation, ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/Dataset_Documentation/NAMCS/doc2016.pdf. Access data table for Figure 2 at: https://www.cdc.gov/nchs/data/databriefs/db331_tables-508.pdf#2.

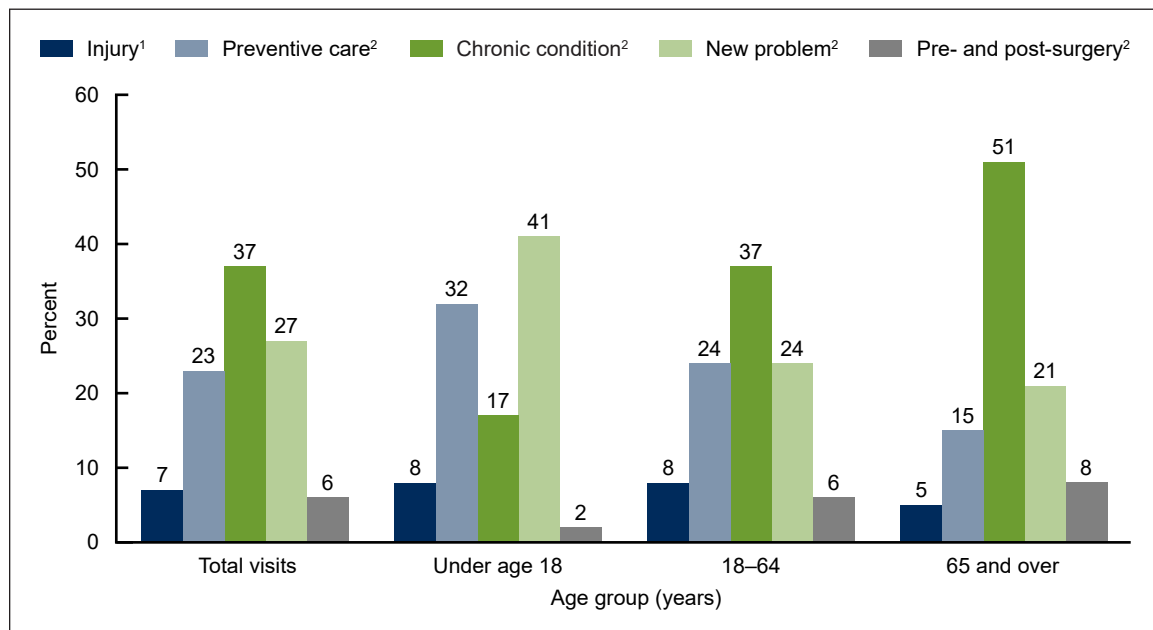
SOURCE: NCHS, National Ambulatory Medical Care Survey, 2016.

- No insurance or self-pay as the primary expected source of payment varied by age (5% among adults aged 18–64, 3% among children under 18, and 1% among adults 65 and over).

What were the major reasons for office-based physician visits?

- A chronic condition was listed as the major reason for 37% of all office-based physician visits, followed by a new problem (27%), preventive care (23%), an injury (7%), and pre- or post-surgery care (6%) (Figure 3).
- Both chronic conditions (17% among children under age 18 years, 37% among those aged 18–64, and 51% among those aged 65 and over) and pre- and post-surgery care (2% among children under age 18, 6% among those aged 18–64, and 8% among those aged 65 and over), as the major reason for visit, increased with increasing age.
- Both preventive care (32% among children under age 18 years, 24% among those aged 18–64, and 15% among those aged 65 and over) and new problem (41% among children under age 18 years, 24% among those aged 18–64, and 21% among those aged 65 and over), as the major reason for visit, decreased with increasing age.
- Injury was listed as the major reason for visit at a higher percentage of visits by children (8%) and adults aged 18–64 (8%) than adults aged 65 and over (5%).

Figure 3. Major reason for office-based physician visit, by age: United States, 2016



¹Significant difference in estimates between those aged 65 and over and both those aged under 18 and those aged 18–64.

²Significant difference in estimates among all age groups.

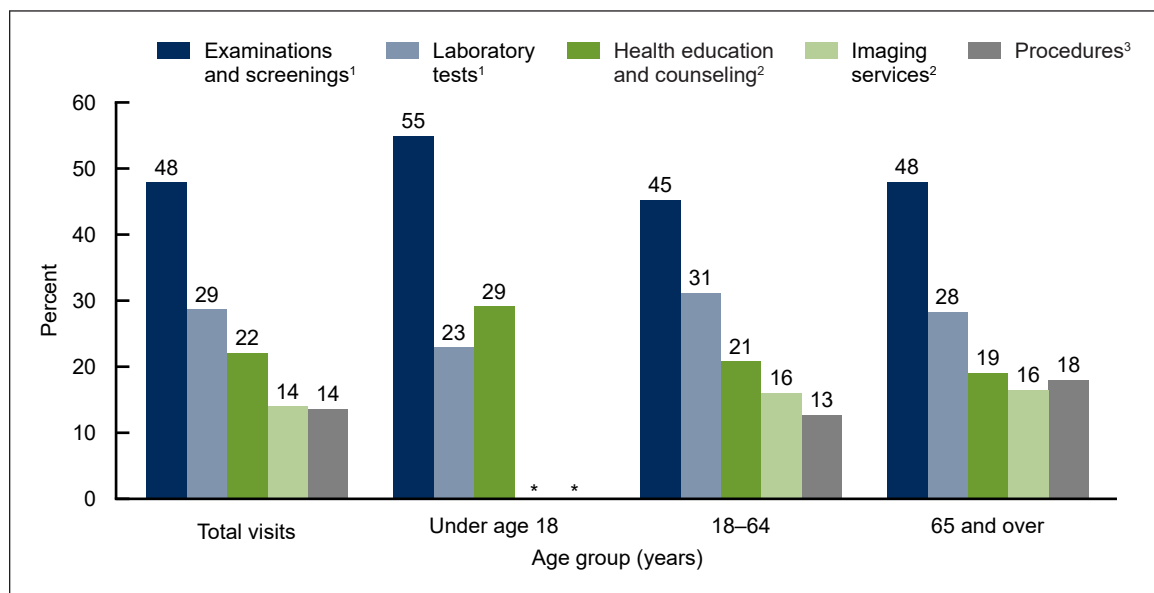
NOTES: Provider-assessed major reason for visit was combined with injury to create a combined mutually exclusive reason for visit, with an injury visit having precedence over all other reasons. In 2016, the definition of injury changed due to the switch from using the *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD–9–CM) to the *International Classification of Diseases, 10th Revision, Clinical Modification* (ICD–10–CM) to code injury and poisoning diagnoses. Therefore, estimates for injury should not be considered comparable with previous years of injury estimates. Total visits includes all visits by patients of all ages. Numbers may not add to 100% due to rounding. Figures exclude 2.3% (weighted) of visits for which data were missing either injury or reason for visit. For more information, please see the 2016 NAMCS documentation, ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/Dataset_Documentation/NAMCS/doc2016.pdf. Access data table for Figure 3 at: https://www.cdc.gov/nchs/data/databriefs/db331_tables-508.pdf#3.

SOURCE: NCHS, National Ambulatory Medical Care Survey, 2016.

What were the services ordered or provided at office-based physician visits, and did they vary by age?

- An examination or screening was ordered or provided at almost one-half (48%) of all office-based physician visits, followed by laboratory tests (29%), health education and counseling (22%), imaging (14%), and procedures (14%) (Figure 4).
- A higher percentage of examinations and screenings were ordered or provided at visits by children under age 18 years than adults aged 18–64, but a higher percentage of laboratory visits occurred among adults aged 18–64 compared with children.
- A higher percentage of health education and counseling services were ordered or provided at visits by children than adults, but there was a higher percentage of visits with imaging services among adults compared with children.
- A higher percentage of procedures were ordered or provided at visits by adults aged 65 and over than younger adults and children.

Figure 4. Selected services ordered or provided at office-based physician visits, by age: United States, 2016



*Estimate does not meet NCHS standards of reliability.

¹Significant difference in estimates between those under age 18 and those aged 18–64.

²Significant difference in estimates between those under age 18 and those aged 18–64 and 65 and over. For imaging services, estimate for those under age 18 is significantly lower than estimates for those aged 18–64 and 65 and over.

³Estimate for those aged 65 and over is significantly higher than estimates for those aged under 18 and aged 18–64.

NOTES: More than one service may be reported per visit. Total visits includes all visits by patients of all ages. Note that due to the switch to ICD–10–CM in 2016, the method used to derive examinations or screenings is different from that used in prior years. Therefore, estimates for examinations and screenings should not be considered comparable to previous years of examinations and screenings estimates. See the definitions section for the specific services included in each category. For the complete list of services, see the 2016 National Ambulatory Medical Care Survey summary documentation, ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/Dataset_Documentation/NAMCS/doc2016.pdf#page=53. Access data table for Figure 4 at: https://www.cdc.gov/nchs/data/databriefs/db331_tables-508.pdf#4.

SOURCE: NCHS, National Ambulatory Medical Care Survey, 2016.

Summary

During 2016, the overall rate of office-based physician visits was 278 visits per 100 persons. The visit rate for infants and older adults was higher than the rate for other age groups. The visit rate for females was higher than the rate for males.

The majority of visits by children (63%) and adults aged 18–64 (71%) listed private insurance as the primary expected source of payment, whereas the majority of visits by older adults listed Medicare as the primary expected source of payment (82%). Approximately 3% of office-based physician visits were made by those with no insurance. A higher percentage of visits by adults 18–64 (5%) had no insurance compared with adults aged 65 and over (1%) and children (3%).

A chronic condition was the major reason for 37% of all office-based physician visits, and visits for chronic conditions were higher among adults than children. A higher percentage of visits by children than adults were for a new problem or preventive care, whereas the reverse was true for visits related to pre- or post-surgery care.

Almost one-half (48%) of all office-based physician visits included an examination or screening that was ordered or provided. Compared with adults, a higher percentage of visits by children included health education and counseling. Compared with children, a higher percentage of visits by adults included imaging services.

Definitions

Major reason for this visit: A variable was created by merging the “INJURY” variable with the provider-assessed major reason for this visit (5). Injury was given preference over all other reasons. The five categories for major reason for this visit include:

- **Injury:** A visit defined as injury or poisoning related, based on any listed reason for visit and diagnosis (5). In 2016, the definition of injury changed due to the switch from using the *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD–9–CM) to the *International Classification of Diseases, 10th Revision, Clinical Modification* (ICD–10–CM) to code injury and poisoning diagnoses. Therefore, estimates for injury in this report should not be considered comparable with previous years of injury estimates.
- **New problem:** A visit for a condition or illness having a relatively sudden or recent onset (within 3 months of this visit).
- **Chronic condition:** A visit primarily to receive care or examination for a preexisting chronic condition or illness (onset of condition was 3 months or more before this visit). This includes both routine visits and flare-ups; a visit primarily due to a sudden exacerbation of a preexisting chronic condition.
- **Pre- and post-surgery:** A visit scheduled primarily for care required prior to or following surgery (e.g., presurgery tests or removing sutures).
- **Preventive care:** General medical examinations and routine periodic examinations. Includes prenatal care, annual physicals, well-child exams, screening, and insurance examinations.

Selected services: Included are services that were ordered or provided during the sampled visit for the purpose of screening (i.e., early detection of health problems in asymptomatic individuals) or diagnosis (i.e., identification of health problems causing individuals to be symptomatic) (5). Each selected service item was grouped into five categories as follows:

- **Examinations or screenings:** Alcohol misuse, breast, depression, domestic violence, foot, neurologic, pelvic, rectal, retinal or eye, skin, and substance abuse. Note that due to the switch to ICD–10–CM in 2016, the method used to derive examinations and screenings in this report is different from that used in prior years. Therefore, estimates for examinations and screenings in this report should not be considered comparable with previous years of examinations and screenings estimates.
- **Health education or counseling:** Alcohol abuse counseling, asthma, asthma action plan given to patient, diabetes education, diet or nutrition, exercise, family planning or contraception, genetic counseling, growth or development, injury prevention, sexually transmitted disease prevention, stress management, substance abuse counseling, tobacco use or exposure, and weight reduction.
- **Imaging services:** Includes bone mineral density, CT scan, echocardiogram, ultrasound, mammography, MRI, and X-ray.
- **Laboratory tests:** Includes basic metabolic panel, complete blood count, chlamydia test, comprehensive metabolic panel, creatinine or renal function panel, culture (blood, throat, urine, or other), glucose, gonorrhea test, HbA1c, hepatitis testing, HIV test, human papillomavirus DNA test, lipid profile, liver enzymes or hepatic function panel, pap test, pregnancy or HCG test, prostate-specific antigen, rapid strep test, thyroid-stimulating hormone or thyroid panel, urinalysis, and vitamin D test.
- **Procedures:** Includes audiometry, biopsy, cardiac stress test, colonoscopy, cryosurgery or destruction of tissue, EKG or ECG, electroencephalogram, electromyogram, excision of tissue, fetal monitoring, peak flow, sigmoidoscopy, spirometry, tonometry, tuberculosis skin testing, and upper gastrointestinal endoscopy.

Data source and methods

Data for this report are from the National Ambulatory Medical Care Survey (NAMCS), which is conducted by the National Center for Health Statistics. NAMCS is an annual, nationally representative survey of office-based physicians and visits to their practices (3,5). The target universe of NAMCS is physicians classified as providing direct patient care in office-based practices. Radiologists, anesthesiologists, and pathologists are excluded, as are physicians in community health centers. The 2016 sample consists of 3,699 physicians. Participating physicians provided 13,165 visit records. The participation rate—the percentage of in-scope physicians for whom at least one visit record was completed—was 39.3%. The response rate—the percentage of in-scope physicians for whom at least one-half of their expected number of visit records was completed—was 32.7%.

Data analyses were performed using the statistical packages SAS version 9.4 (SAS Institute, Cary, N.C.) and SAS-callable SUDAAN version 11.0 (RTI International, Research Triangle Park, N.C.). Differences in the distribution of selected characteristics of office-based physician visits are based on chi-square tests ($p < 0.05$). If a difference was found to be statistically significant, additional pairwise tests were performed. Statements of difference in paired estimates are based on two-tailed t tests with statistical significance at the $p < 0.05$ level. Terms such as “higher” or “lower” indicate that the differences are statistically significant.

About the authors

Jill J. Ashman, Pinyao Rui, and Titilayo Okeyode are with the National Center for Health Statistics, Division of Health Care Statistics.

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