

Medicaid and CHIP enrollees who received a well-child visit in 2020



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About this brief

WHAT IS THIS BRIEF?

This data brief describes children enrolled in Medicaid and the Children's Health Insurance Program (CHIP) who received at least one well-child visit paid for by Medicaid or CHIP in 2020. CMS is releasing this data brief as part of ongoing agency efforts to measure disparities in access to care and make focused, evidence-based investments to improve health equity for the Medicaid and CHIP population. In 2020, 50 percent of enrollees under age 19 received at least one Medicaid- or CHIP-funded well-child visit. Well-child visit utilization was highest among children under age 3, particularly for enrollees under 1 year of age. A larger proportion of Hispanic or non-Hispanic Asian/Pacific Islander children and a smaller proportion of children residing in rural areas received a well-child visit. The information in this brief, as well as updated counts that reflect data from later years, will be made available for download on data.medicaid.gov.

WHAT IS THE SOURCE OF INFORMATION?

This brief is based on data reported by states to CMS as part of the Transformed Medicaid Statistical Information System (T-MSIS). States report information each month via T-MSIS about their enrollees, Medicaid- and CHIP-covered services, payments to providers and managed care organizations, enrollees' diagnoses and health conditions, and information on providers and managed care plans. These data are converted into the T-MSIS Analytic Files (TAF), which are optimized for research purposes. More information about T-MSIS and TAF is available at [Medicaid.gov](https://www.medicaid.gov).¹ Many states have high-quality and complete information in the TAF on Medicaid and CHIP enrollment, age, and outpatient services rendered, including well-child visits. More information on TAF data quality can be found on the DQ Atlas.²

To classify enrollees based on race and ethnicity as shown in Figure 2, CMS used the 2020 TAF Race/Ethnicity Imputation (REI) Companion File, which includes state-reported information on enrollee race and ethnicity when it is reported and of good quality (74 percent of all enrollees, nationwide), and indirectly estimated race and ethnicity when the state-reported information is missing or unreliable (26 percent of all enrollees). CMS based its indirect estimates of race and ethnicity on an enhanced version of a well-validated

method that is widely used for this purpose: Bayesian Improved Surname and Geocoding (BISG). BISG³ draws on the racial and ethnic distribution associated with a person's surname and geographic location to estimate the person's probability of reporting being in each of six racial and ethnic groups.⁴ The distribution of race and ethnicity for surnames from the Census Bureau is not available separately for race and ethnicity, so the categories are combined here.⁵ CMS enhanced the standard BISG methodology for these data by supplementing with T-MSIS information about enrollees' first names and their American Indian or Alaska Native certification.

To classify enrollees as living in an urban or rural location as shown in Figure 3, CMS used the 2010 Rural-Urban Commuting Area (RUCA) code classification scheme from the U.S. Department of Agriculture. Enrollees are assigned to an urban or rural residence category based on the 2010 RUCA code associated with their home or mailing address ZIP code in TAF. RUCA codes 4 to 10 correspond to rural areas and RUCA codes 1 to 3 correspond to urban areas, which include all towns and cities with a population of 50,000 or more as well as surrounding suburban areas.

WHO IS INCLUDED IN THIS ANALYSIS?

The figures in this brief include Medicaid and CHIP enrollees under age 19 from all states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands, except where otherwise noted. None of the figures in this brief include enrollees in Guam, American Samoa, and the Northern Mariana Islands because T-MSIS data are not available for these territories. All figures include enrollees who had comprehensive Medicaid or CHIP benefits for all 12 months of the year and who were under age 19 as of December 31, 2020. Enrollees who were dually eligible for Medicare are included in the figures. Figure 2 excludes enrollees residing in the U.S. Virgin Islands because this territory is not included in the 2020 REI Companion File. Figure 5 excludes the following 16 states because of incomplete or unreliable primary language data in the 2020 TAF: Alaska, Arizona, California, Hawaii, Illinois, Louisiana, Michigan, Montana, Nebraska, Nevada, New Jersey, New Mexico, New York, Pennsylvania, Rhode Island, and Texas.

¹ <https://www.medicaid.gov/medicaid/data-systems/macbis/transformed-medicaid-statistical-information-system-t-msis/index.html>

² <https://www.medicaid.gov/dq-atlas/welcome>

³ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6338295/>

⁴ The six racial and ethnic groups shown in this brief are: non-Hispanic White, Hispanic, non-Hispanic Black, non-Hispanic Asian/Pacific Islander, non-Hispanic American Indian and Alaska Native, and non-Hispanic multiracial. Fewer than half of states report any multiracial Medicaid or CHIP enrollees in TAF, and the accuracy of the indirect estimates for this group is low. Information about enrollees in the multiracial group in Figure 2 should be interpreted with caution.

⁵ <https://www.census.gov/data/developers/data-sets/surnames.html>

About this brief

HOW ARE WELL-CHILD VISITS DEFINED?

Well-child visits are a mandatory covered service for Medicaid and CHIP. This brief includes enrollees who received at least one well-child visit paid for by Medicaid or CHIP during the year. Well-child visits are defined consistent with the guidance on Line 6 of the Form CMS-416: Annual Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) Participation Report.⁶ This logic identifies well-child visits using (1) Current Procedural Terminology (CPT) procedure codes for certain preventive medicine services or (2) CPT procedure codes for evaluation and management services with select well-child visit diagnosis codes (see Line 6 in Form CMS-416 instructions). Although the Form CMS-416 only requires 90 days of continuous enrollment, this brief restricts the population to children with 12 months of enrollment during the year to allow for measuring disparities in access to care across demographic groups that are not attributable to lapses in enrollment.

WHAT ARE THE ANALYSIS CONSIDERATIONS?

Since the TAF data used in this brief only account for well-child visits that were paid for by Medicaid or CHIP, these figures likely underestimate the full population of Medicaid and CHIP children who received a well-child visit during the year. Services delivered in certain care settings, such as community clinics, schools, and Indian Health Service facilities, might not be billed to Medicaid and CHIP and are not reflected in this brief. Furthermore, since this brief includes children with 12 months of enrollment during the year, the results shown in the figures do not include children who received a well-child visit but had only part-year enrollment.

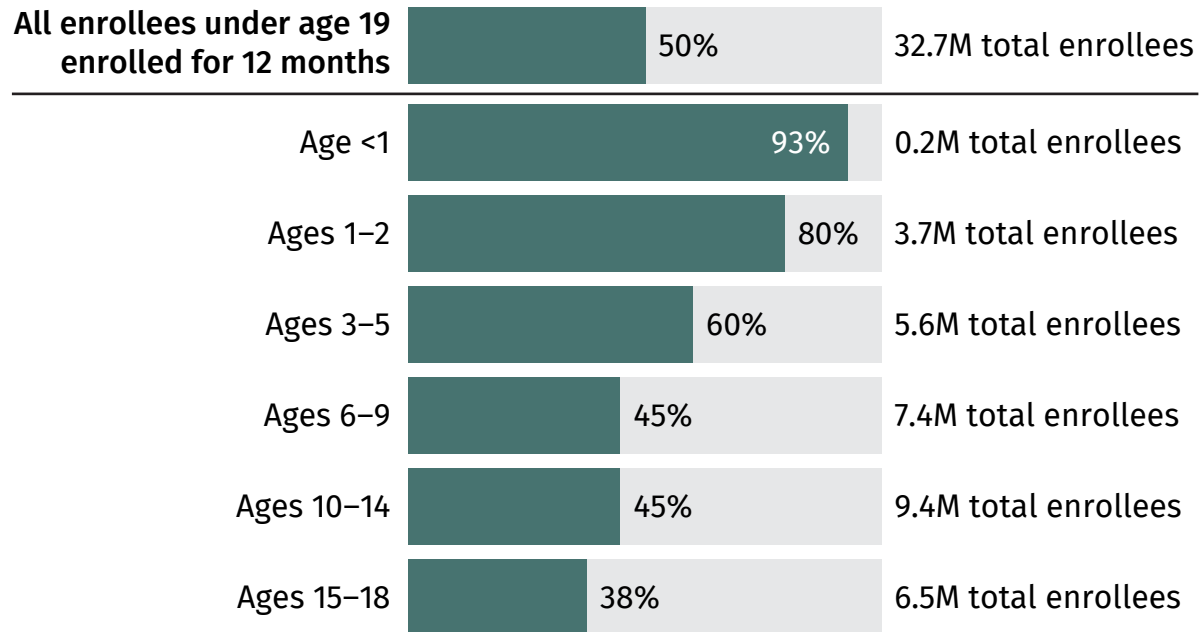
In addition, starting in April 2020 with the onset of the COVID-19 public health emergency (PHE), there were widespread declines in service use among Medicaid and CHIP enrollees, including for well-child visits.⁷ Although most service rates eventually rebounded during the PHE, the gap in services delivered during the PHE versus pre-PHE years could affect the results shown in this brief. Moreover, in response to the PHE, Congress passed the Families First Coronavirus Response Act, which included a temporary federal funding increase for state Medicaid agencies that met certain conditions. In accepting the temporary federal funding increase, states did not disenroll most individuals who lost eligibility during the PHE. As a result, the child Medicaid and CHIP population and the well-child visits received during this period might not align with the data from other, non-PHE years.

⁶ <https://www.medicaid.gov/medicaid/benefits/downloads/cms-416-instructions.pdf>

⁷ <https://www.medicaid.gov/resources-for-states/coronavirus-disease-2019-covid-19/medicaid-and-chip-resources/data-releases/index.html>

Does the share of children under age 19 who received a well-child visit paid for by Medicaid or CHIP vary by age?

FIGURE 1. PERCENTAGE OF CHILDREN UNDER AGE 19 WHO WERE ENROLLED FOR 12 MONTHS AND RECEIVED A MEDICAID- OR CHIP-FUNDED WELL-CHILD VISIT IN 2020, BY AGE



PLEASE NOTE: The results shown in this figure are impacted by disruptions in care and Medicaid eligibility renewal practices in response to the COVID-19 public health emergency.

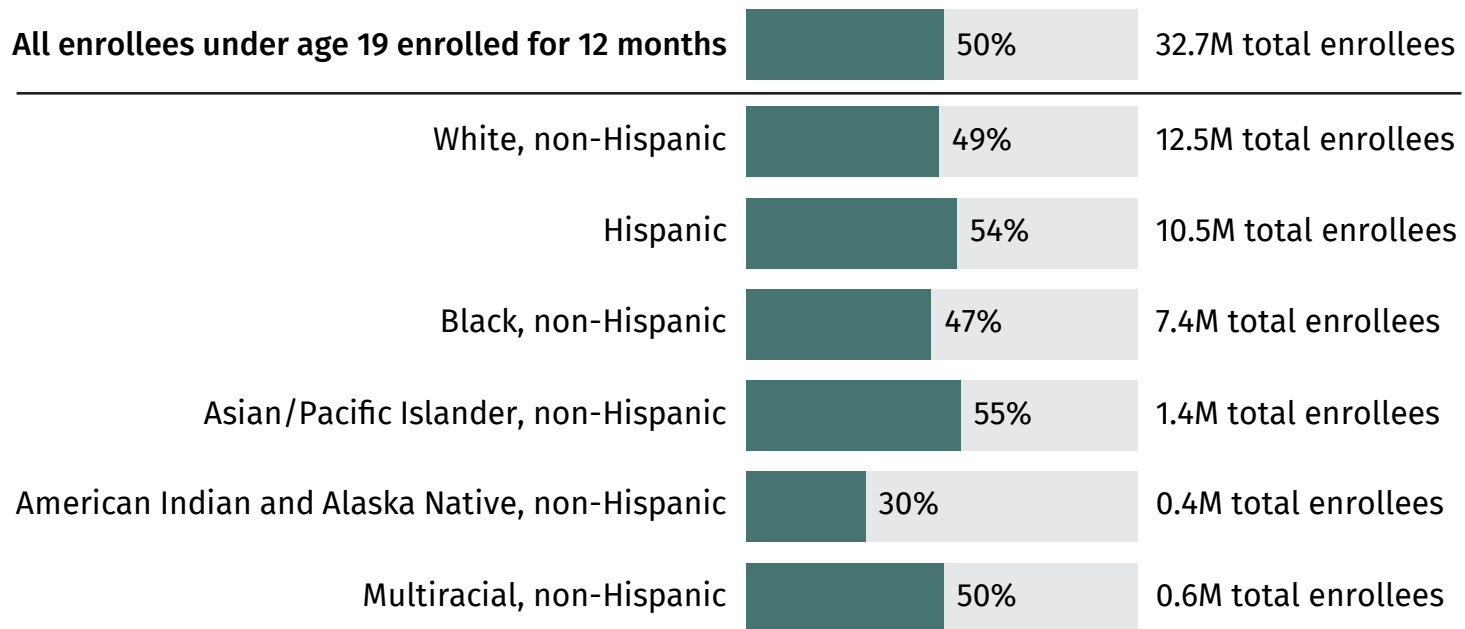
A larger share of enrollees under age 3 received a well-child visit paid for by Medicaid or CHIP in the year compared with enrollees in older age groups. Well-child visit utilization was highest among enrollees under 1 year of age. According to the Bright Futures periodicity schedule, the American Academy of Pediatrics recommends that children in younger age groups receive more frequent well-child visits during the year compared with older children.

SOURCES: 2020 T-MSIS Analytic Files Annual Demographic and Eligibility File and Other Services File, Release 1.

NOTES: This figure includes Medicaid and CHIP enrollees under age 19 as of December 31, 2020, from all states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands. This figure excludes children with limited Medicaid and CHIP benefits or those who were enrolled for less than 12 months of the year. This figure only includes well-child visits that were paid for by Medicaid or CHIP.

Does the proportion of children under age 19 who received a well-child visit paid for by Medicaid or CHIP vary by racial and ethnic group?

FIGURE 2. PERCENTAGE OF CHILDREN UNDER AGE 19 WHO WERE ENROLLED FOR 12 MONTHS AND RECEIVED A MEDICAID- OR CHIP-FUNDED WELL-CHILD VISIT IN 2020, BY RACE AND ETHNICITY



PLEASE NOTE: The results shown in this figure are impacted by disruptions in care and Medicaid eligibility renewal practices in response to the COVID-19 public health emergency.

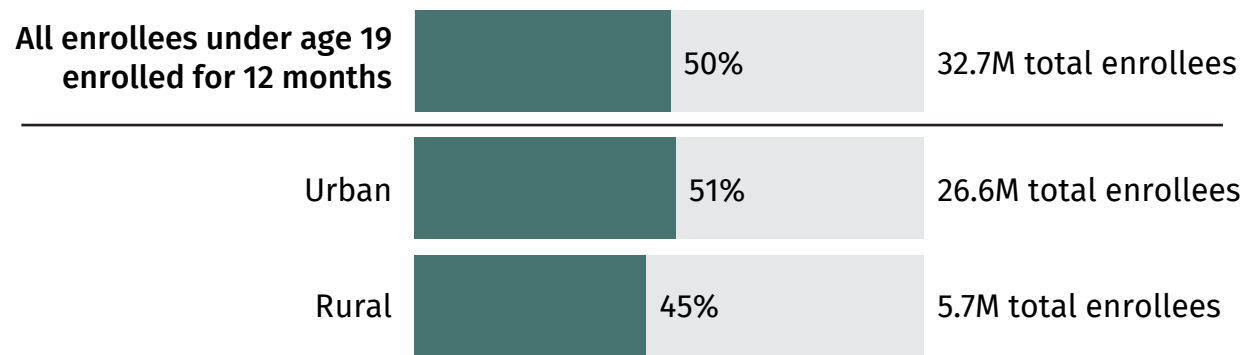
Approximately half of children in all racial and ethnic groups received a well-child visit paid for by Medicaid or CHIP except for American Indian and Alaska Native (AI/AN) enrollees where less than one-third of children received a well-child visit in the year. However, this could be reflective of AI/AN enrollees receiving services through Indian Health Service facilities that would not be captured in Medicaid and CHIP administrative data.

SOURCES: 2020 T-MSIS Analytic Files Annual Demographic and Eligibility File and Other Services File, Release 1, and 2020 Race/Ethnicity Imputation (REI) Companion File.

NOTES: This figure includes Medicaid and CHIP enrollees under age 19 as of December 31, 2020, from all states, the District of Columbia, and Puerto Rico. The U.S. Virgin Islands are not included because data from that territory are not included in the 2020 REI Companion File. This figure excludes children with limited Medicaid and CHIP benefits or those who were enrolled for less than 12 months of the year. This figure only includes well-child visits that were paid for by Medicaid or CHIP.

Does well-child visit utilization among Medicaid and CHIP children under age 19 vary by geographic area?

FIGURE 3. PERCENTAGE OF CHILDREN UNDER AGE 19 WHO WERE ENROLLED FOR 12 MONTHS AND RECEIVED A MEDICAID- OR CHIP-FUNDED WELL-CHILD VISIT IN 2020, BY GEOGRAPHIC AREA



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PLEASE NOTE: The results shown in this figure are impacted by disruptions in care and Medicaid eligibility renewal practices in response to the COVID-19 public health emergency.

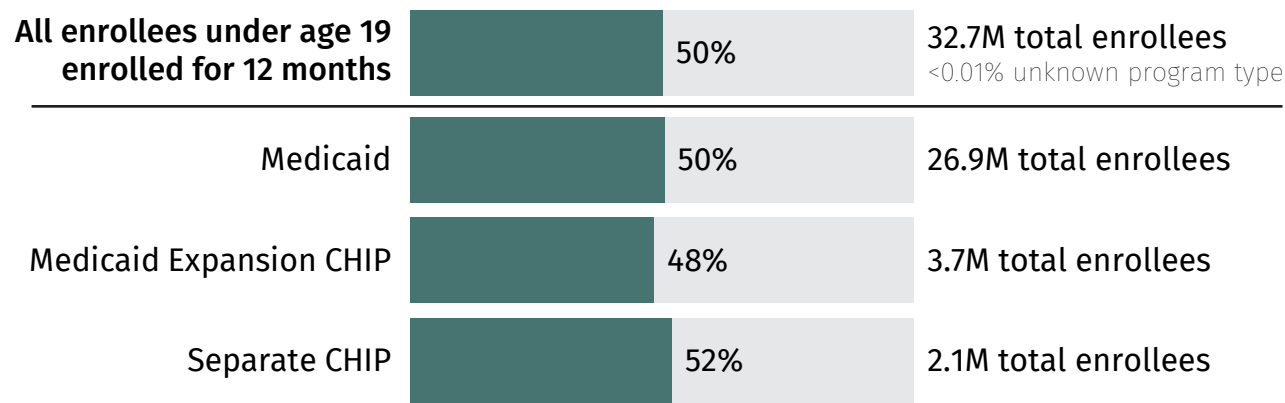
About 17 percent of Medicaid- and CHIP-enrolled children under age 19 resided in a rural area in 2020. A smaller proportion of children who reside in rural areas received a Medicaid- or CHIP-funded well-child visit in the year compared with children who reside in an area designated as urban. Urban areas encompass all cities and towns with a population exceeding 50,000 as well as their surrounding suburbs. More information on rural enrollees, their characteristics, and the delivery systems that serve them is available in the data brief titled [Rural Medicaid and CHIP enrollees in 2020](#).

SOURCES: 2020 T-MSIS Analytic Files Annual Demographic and Eligibility File and Other Services File, Release 1.

NOTES: This figure includes Medicaid and CHIP enrollees under age 19 as of December 31, 2020, from all states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands. This figure excludes children with limited Medicaid and CHIP benefits or those who were enrolled for less than 12 months of the year. Due to small population sizes, this figure excludes <1 percent of children who could not be assigned to an urban or rural residence. This figure only includes well-child visits that were paid for by Medicaid or CHIP.

Does well-child visit utilization among Medicaid and CHIP children under age 19 vary by program type?

FIGURE 4. PERCENTAGE OF CHILDREN UNDER AGE 19 WHO WERE ENROLLED FOR 12 MONTHS AND RECEIVED A MEDICAID- OR CHIP-FUNDED WELL-CHILD VISIT IN 2020, BY PROGRAM TYPE



PLEASE NOTE: The results shown in this figure are impacted by disruptions in care and Medicaid eligibility renewal practices in response to the COVID-19 public health emergency.

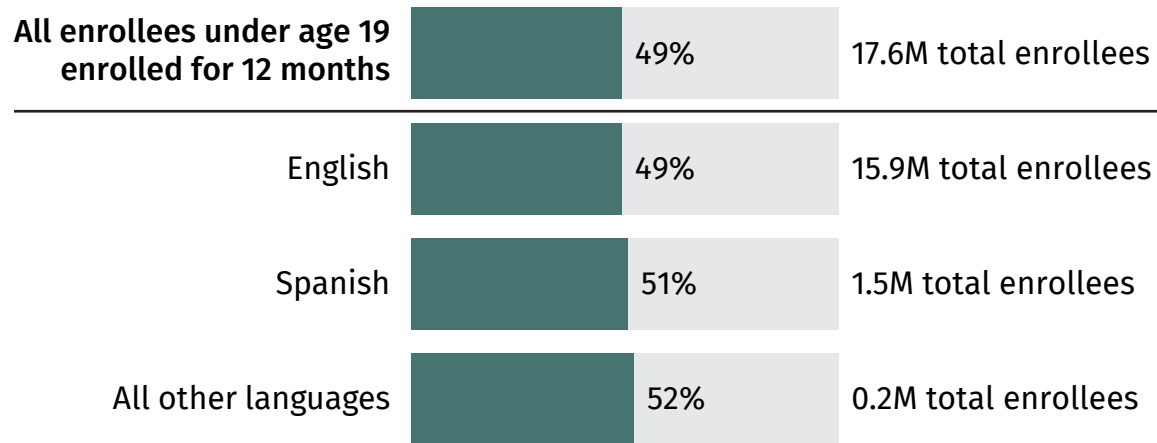
Rates of well-child visits are very similar across Medicaid and CHIP programs. Medicaid provides health insurance coverage to low-income families and children whose household income is below state-defined income thresholds. CHIP provides health insurance coverage for children whose household income is too high to qualify for Medicaid but too low to afford private coverage. Nearly 94 percent of enrollees under age 19 were enrolled in Medicaid or M-CHIP in 2020. Coverage of certain services for children enrolled in S-CHIP programs may differ, depending on the type of coverage the state chooses; however, well-child visits are a mandatory covered service across all program types.

SOURCES: 2020 T-MSIS Analytic Files Annual Demographic and Eligibility File and Other Services File, Release 1.

NOTES: This figure includes Medicaid and CHIP enrollees under age 19 as of December 31, 2020, from all states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands. This figure excludes children with limited Medicaid and CHIP benefits or those who were enrolled for less than 12 months of the year. This figure only includes well-child visits that were paid for by Medicaid or CHIP.

Does the share of children under age 19 who received a well-child visit vary by primary language spoken?

FIGURE 5. PERCENTAGE OF CHILDREN UNDER AGE 19 WHO WERE ENROLLED FOR 12 MONTHS AND RECEIVED A MEDICAID- OR CHIP-FUNDED WELL-CHILD VISIT IN 2020, BY PRIMARY LANGUAGE



PLEASE NOTE: *The results shown in this figure are impacted by disruptions in care and Medicaid eligibility renewal practices in response to the COVID-19 public health emergency.*

Not all states report complete and reliable information in TAF on the primary language spoken in Medicaid and CHIP households. Among states that do report complete information, a similar proportion of children across English, Spanish, and other primary languages received a well-child visit paid for by Medicaid or CHIP.

SOURCES: 2020 T-MSIS Analytic Files Annual Demographic and Eligibility File and Other Services File, Release 1.

NOTES: This figure includes Medicaid and CHIP enrollees under age 19 as of December 31, 2020, who were continuously enrolled with comprehensive benefits for 12 months. This figure includes data from 37 states, including the District of Columbia, Puerto Rico, and the U.S. Virgin Islands, where complete and reliable information on primary language was available in the TAF. This figure excludes the following 16 states because of incomplete or unreliable primary language data: Alaska, Arizona, California, Hawaii, Illinois, Louisiana, Michigan, Montana, Nebraska, Nevada, New Jersey, New Mexico, New York, Pennsylvania, Rhode Island, and Texas. This figure only includes well-child visits that were paid for by Medicaid or CHIP.

Number of enrollees under age 19 who received a well-child visit paid for by Medicaid or CHIP in 2020, by age, rural residency, program type, race and ethnicity, and primary language

The data in these tables are available for download at data.medicaid.gov. Updated counts that reflect data from later years will be released as they become available at data.medicaid.gov. The counts of enrollees shown in parentheses above the table columns represent the total number of enrollees in each demographic subgroup. The counts in the tables across demographic categories may not sum exactly to the total counts for the row due to rounding.

Table 1 – By age group, rural residency, and program type

	Age <1 (0.2M)	Ages 1–2 (3.7M)	Ages 3–5 (5.6M)	Ages 6–9 (7.4M)	Ages 10–14 (9.4M)	Ages 15–18 (6.5M)	Urban (26.6M)	Rural (5.7M)	Missing or unassigned (0.3M)	Medicaid (26.9M)	Medicaid expansion CHIP (3.7M)	Separate CHIP (2.1M)
Enrollees with a well-child visit (16.4M)	0.2M	2.9M	3.4M	3.3M	4.2M	2.5M	13.7M	2.6M	0.1M	13.5M	1.8M	1.1M

Table 2 – By race and ethnicity

	White, non- Hispanic (12.5M)	Hispanic (10.5M)	Black, non- Hispanic (7.4M)	API, non- Hispanic (1.4M)	AI/AN, non- Hispanic (0.4M)	Multiracial, non-Hispanic (0.6M)
Enrollees with a well-child visit (16.4M)	6.1M	5.6M	3.5M	0.7M	0.1M	0.3M

API = Asian/Pacific Islander; AI/AN = American Indian and Alaska Native

Table 3 – By primary language

	English (15.9M)	Spanish (1.5M)	All other languages (0.2M)
Enrollees with a well-child visit (8.7M)	7.8M	0.8M	0.1M

SOURCES: 2020 T-MSIS Analytic Files Annual Demographic and Eligibility File and Other Services File, Release 1, and 2020 Race/Ethnicity Imputation (REI) Companion File.

NOTES: All tables include Medicaid and CHIP enrollees under age 19 as of December 31, 2020, who had comprehensive benefits and were enrolled for 12 months during the year. Table 1 includes data from all states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands. Table 2 excludes the U.S. Virgin Islands because data from that territory are not included in the 2020 REI Companion File. Table 3 excludes the following 16 states because of incomplete or unreliable T-MSIS data on primary language: Alaska, Arizona, California, Hawaii, Illinois, Louisiana, Michigan, Montana, Nebraska, Nevada, New Jersey, New Mexico, New York, Pennsylvania, Rhode Island, and Texas. These tables only include well-child visits that were paid for by Medicaid or CHIP.