

# Methodology

## Momentum Reverses: Colorado’s Eligible but not Enrolled Population Grows for First Time Since 2015

**APRIL 2020**

*This document describes the methods used by the Colorado Health Institute (CHI) to develop estimates of health insurance coverage of Colorado’s children and working-age adults for 2018. It accompanies the brief, “Momentum Reverses: Colorado’s Eligible but not Enrolled Population Grows for First Time Since 2015” and the associated data tables. All materials are available on our website at [coloradohealthinstitute.org](http://coloradohealthinstitute.org).*

### Estimates of Coloradans Who Are Eligible for Medicaid, CHP+ or Tax Credits

The eligible population is the sum of those enrolled in Medicaid, Child Health Plan *Plus* (CHP+), or an exchange plan using the advanced premium tax credits (APTC) and those uninsured residents who are eligible for one of these insurance assistance programs but not enrolled (EBNE).

Eligibility for Medicaid, CHP+, and APTCs is based

on age, income, and residency status. We defined children as ages 0 through 18 years of age and adults as 19 through 64 years of age. These criteria are summarized in the table below.

### Enrollment Data for Medicaid, CHP+ and APTCs

The Budget Division of the Colorado Department of Health Care Policy and Financing (HCPF) provided state and county Medicaid and CHP+ enrollment figures.

Qualifying Category	Eligible For
Children under 148% FPL (citizen or legal resident)	Medicaid
Adults under 139% FPL (citizen or legal resident for 5+ years)	
Children 148 – 265% FPL (citizen or legal resident)	CHP+
Children 266 – 400% FPL (citizen or legal resident)	APTC
Adults under 139% FPL (non-citizen legal resident for < 5 years)	
Adults 139 – 400% FPL (citizen or legal resident)	

CHI used the average monthly enrollment for the calendar year being analyzed — in this case, January through December 2018. HCPF does not release data for counties with fewer than 30 enrollees. Therefore, the sum of enrollees by county or Regional Accountability Entities (RAE) will not equal the state enrollment totals.

The reported enrollment in the CHP+ program includes only children. Adult prenatal CHP+ enrollment is not estimated in this analysis because pregnancy status is not available in data from the American Community Survey (ACS). Adult prenatal CHP+ enrollment represents only one percent of total CHP+ enrollment.

APTC enrollment data were provided by Connect for Health Colorado.

The Affordable Care Act (ACA) initiated or expanded other programs that are not measured in this analysis, including the pediatric dental benefit for Medicaid and CHP+ members and the cost sharing reduction benefit for certain marketplace plans.

## EBNE Estimates

Estimates of the eligible but uninsured (referred to as the eligible but not enrolled) population come from the U.S. Census Bureau's 2018 American Community Survey (ACS). The ACS in Colorado is an annual stratified random sample survey of approximately 56,000 individuals from 20,000 households. Data are weighted to represent the state population as well as geographic subregions within Colorado.

CHI applied a method developed by the University of Missouri to apportion the ACS regions and yield county-level estimates.

An adult was counted as uninsured if he or she reported no type of health insurance when the ACS questionnaire was administered. A child was counted as uninsured if his or her parent reported that the child did not have any form of health insurance when the ACS questionnaire was administered.

Eligibility is based on family income as a percentage of the federal poverty level (FPL). In order to calculate the ratio of annual family income to federal poverty guidelines, CHI developed a method to identify and calculate nuclear family income for families living in households with other related families. This approach more closely approximates eligibility determination

guidelines. These analyses are limited to Coloradans for whom ACS income data were collected. Income and poverty data are not available for foster children or for people living in prisons, nursing homes, mental hospitals, college dormitories, or military quarters.

## Citizenship, Documentation Status, and Children With Noncitizen Parents

The ACS contains variables on citizenship but not on whether a person has legal documentation status. CHI updated its method for estimating undocumented immigrants in Colorado in December 2015. The updated method is based on a Pew Hispanic Center report describing the characteristics of the undocumented immigrant population in the U.S. CHI created a logistic regression model of the likelihood that a noncitizen was an undocumented immigrant based on these characteristics.

For example, Pew's 2006 report estimated that 49 percent of undocumented immigrants in the United States are adult men, compared with 44 percent of noncitizens who have legal documentation. Therefore, CHI estimated a noncitizen was 12.5 percent more likely to lack legal documentation if he is an adult male — the difference between 49 percent and 44 percent. The full model was based on age, sex, employment status, and country of origin.

The ACS also contains variables that allow for linking between members of the same household based on a household serial number and parent identifiers. Estimates for the number of children with noncitizen parents utilized this linking methodology to identify children in households with parents with a predicted likelihood of being undocumented or who had a known noncitizen status based on citizenship data from the ACS.

## Offer of Affordable Employer-Sponsored Insurance

To qualify for APTCs, an applicant must show that he or she does not have an offer of affordable employer-sponsored insurance. The ACS does not include a variable that indicates whether this is the case, so estimates from the 2015 Medical Expenditure Panel Survey (MEPS) and the Colorado Health Access Survey (CHAS) were used instead.

According to this approach, 49 percent of children and 15 percent of adults who would otherwise be eligible for the APTCs were offered affordable employer-sponsored insurance. CHI assumed those ratios applied to all counties and demographic groups to estimate a true count of the APTC-eligible populations.

In 2018, the ACA considered employer-sponsored insurance unaffordable if premiums cost more than 9.78 percent of household income.

## Demographic Breakdowns

Breakdowns by FPL, race/ethnicity and age are all based on characteristics from the ACS.

## For More Information

CHI welcomes the opportunity to discuss any questions or provide additional information about the methods, data sources, and assumptions. Please contact Lindsey Whittington, research analyst, at [whittingtonl@coloradohealthinstitute.org](mailto:whittingtonl@coloradohealthinstitute.org)

## Sources

- Colorado Department of Health Care Policy and Financing. Premiums, Expenditures and Caseload Reports Fiscal Year 2017-2018. Available at <https://www.colorado.gov/pacific/hcpf/premiums-expenditures-and-caseload-reports>
- Connect for Health Colorado. Special data request.
- Passel, J (2006). The Size and Characteristics of the Unauthorized Migrant Population in the U.S.: Estimates Based on the March 2005 Current Population Survey. Pew Hispanic Center Research Report. Available at <http://www.pewhispanic.org/2006/03/07/size-and-characteristics-of-the-unauthorized-migrant-population-in-the-us/>
- Colorado Health Institute. Colorado Health Access Survey (2019). Available at: <https://www.coloradohealthinstitute.org/research/colorado-health-access-survey>
- Medical Expenditure Panel Survey (2015). Available at: <https://meps.ahrq.gov/mepsweb/>
- U.S. Census Bureau American Community Survey (2018). Available at <https://www.census.gov/programs-surveys/acs/>



303 E. 17th Ave., Suite 930 • Denver, CO 80203 • 303.831.4200

The Colorado Health Institute is a trusted source of independent and objective health information, data, and analysis for the state's health care leaders. CHI's work is made possible by generous supporters who see the value of independent, evidence-based analysis. Those supporters can be found on our website

[coloradohealthinstitute.org/about-us](https://coloradohealthinstitute.org/about-us)