

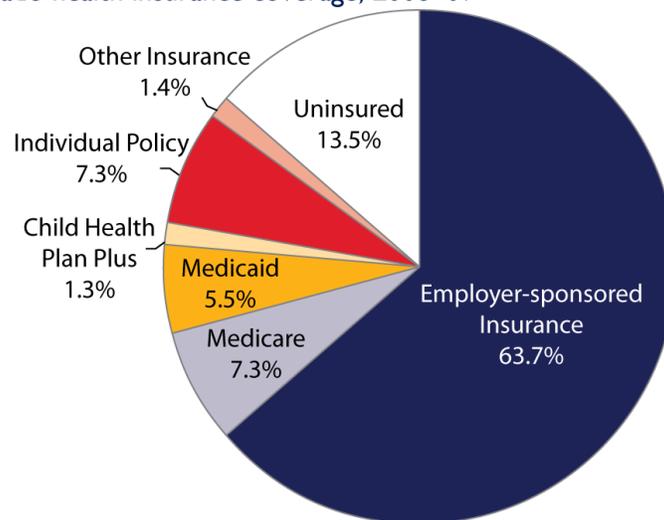


In November 2008, the 2008–09 Colorado Household Survey (COHS) was initiated to collect information on the health insurance status of Coloradans. The COHS was sponsored by the Colorado Department of Health Care Policy and Financing and funded by The Colorado Trust in an effort to more accurately assess the issues surrounding health insurance coverage in Colorado and to provide baseline information about health care coverage and access in anticipation of state and national health reform efforts.

The U.S. Census Bureau conducts the annual Current Population Survey (CPS), a sample survey of all Americans that includes a limited number of questions on health insurance status. CPS data suggest that Colorado's uninsured rate has stayed relatively stable while the *number* of uninsured has increased as the state's population has generally grown.¹ Despite its annual availability, there are a number of limitations to the CPS, most importantly that sampling methods only permit state-level estimates. The COHS was specifically designed for both state and sub-state estimates and includes a comprehensive set of questions aimed at describing the characteristics of uninsured Coloradans, the impact of their insurance status on access to health care services and the out of pocket expenses they incur with and without health insurance coverage.

Using data from the COHS, this issue brief provides an overview of uninsured Coloradans, how long they experience spells of uninsurance and discusses the correlates of being uninsured, including employment status, the size of the firms in which they work, annual income and where in the state the burden of being uninsured is most acutely felt.²

Figure I. Colorado health insurance coverage, 2008–09



SOURCE: 2008–09 Colorado Household Survey

¹ Colorado Health Institute. (2009). *How many Coloradans are uninsured? A guide to the estimates.*

² The Colorado Health Institute (CHI) served as the administrator for the COHS under contract with the Colorado Department of Health Care Policy and Financing and authored this issue brief.

Methods

The 2008–09 COHS was a telephone survey of 10,000 randomly selected households in Colorado. Within each household, one member was randomly chosen as the target and a series of questions regarding health insurance coverage, health status, access to health care, health care utilization, employment and income was asked about that individual. If the person answering the telephone was at least 18 years of age and able to do so, he or she answered all survey questions about the target and answered a subset of questions (demographics and health insurance) about all members of the household. Otherwise, another adult household member who could answer these questions was interviewed. In addition, the growing trend of cell phone-only households precipitated the inclusion of 400 randomly selected individuals at least 18 years of age who live in a household where only a cell phone is used for telecommunication. The household survey was completed in March 2009.

Unless otherwise indicated, the uninsurance estimates are based on the individual being uninsured at the time of the survey. One limitation of the COHS is it did not determine the citizenship status of individuals. All income estimates, such as percent of federal poverty level (FPL), are based on the target's annualized family income from the month just prior to when the respondent answered the survey. Although the COHS asked respondents about the target's 2007 annual family income as well, the time lag between 2007 and the time of survey administration argued against using yearly 2007 income in favor of the more recent income figure. However, a limitation to using the monthly figure is that respondents may have been more likely to report net income as opposed to gross income.

Statistically significant differences between group estimates were calculated using appropriate statistical tests. All estimates reported in this issue brief have been weighted to represent both the total 2008 Colorado population of 5,010,395.³

Figure 1 displays the proportion of Coloradans who were uninsured or covered by a particular type of health insurance at the point in time at which they were surveyed.⁴

Definitions of uninsurance

The COHS interviewers asked respondents about their health insurance status at the time the survey was administered. This point-in-time question was followed by a series of questions about the type(s) of health care coverage held by the target individual and other family members. If the person did not have health insurance, the interviewer then asked a series of questions to verify that the individual was not covered by any type of insurance and how long she/he had been uninsured.

This question sequencing was necessary to provide a complete profile of uninsured Coloradans, including the length of time they were uninsured. Table 1 details the estimates derived from the three

³ 2008 population estimates are from the Colorado State Demography Office. All estimates reported in this brief are based on data from the 2008-09 COHS. Detailed information on the methods used for the 2008–09 COHS is available for download from the Colorado Health Institute Web site, at <http://www.coloradohealthinstitute.org>.

⁴The insurance categories in Figure 1 are mutually exclusive even though respondents could indicate they were covered by more than one type of insurance at the time of the survey. The categories are based on the following hierarchy—employer-sponsored insurance, Medicare, Medicaid, Child Health Plan Plus, a private individual policy or other type of insurance.

definitions of uninsurance: 1) uninsured at the time of the survey; 2) uninsured at some time in the 12 months prior to the survey; and 3) uninsured for all 12 months prior to the survey.

Table 1. Colorado uninsurance rates by length of time uninsured, 2008–09

Length of time uninsured	Number	Rate	Margin of error (+ / -)
Uninsured at the time of the survey	678,438	13.5%	1.3%
Uninsured at some time in the 12 months prior to the survey	949,068	19.1%	1.2%
Uninsured all of the 12 months prior to the survey	517,893	10.3%	1.5%

Note: All rates were calculated by dividing the number of uninsured by the total 2008 Colorado population (5,010,395). The margin of error indicates the 95% confidence interval around the uninsurance estimate. Uninsured groups displayed in Table 1 are not mutually exclusive.

SOURCE: 2008–09 Colorado Household Survey

These different estimates of uninsurance provide a more comprehensive picture of uninsured Coloradans than a simple point in time estimate. For example, only 14 percent of Coloradans (approximately 678,000 individuals) were uninsured at the time of the survey, but almost one-in-five were without health insurance for some period of time during the 12 months prior to the survey administration (949,000). Approximately 10 percent of all Coloradans (518,000) indicated being uninsured for a full year (Table 1).

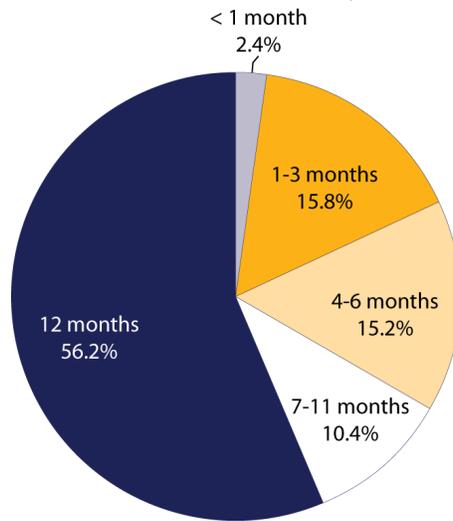
Figure 2 displays the amount of time that individuals who reported being uninsured at some point in the 12 months prior to the survey went without health insurance coverage. Of the 19 percent of Coloradans (or approximately 949,000 individuals) who experienced a spell of uninsurance, over half (56%) were without coverage for at least 12 months. In other words, people who were uninsured for 12 months or longer represented 10.3 percent of the state’s total population (Table 1), and 56.2 percent of the state’s population that was *uninsured* at some point in the 12 months prior to the survey (Figure 2).⁵

Comparison of COHS with other uninsurance estimates

The estimated 14 percent of Coloradans uninsured at the time of the survey is significantly lower than recent estimates provided by the U.S. Census Bureau; specifically, the Current Population Survey (CPS) which estimated that 16 percent of Coloradans were uninsured in 2007-08 and the American Community Survey (ACS) which estimated 17 percent were uninsured in 2008. Why do uninsurance estimates differ as much as they do? State-specific surveys, such as the COHS, often yield lower uninsured estimates than national surveys because of differences in survey methods, including how the population is sampled, how questions are asked and how the estimates are calculated.⁵

⁵ For a discussion of why uninsured estimates based on state survey data differ from federal surveys, see the State Health Data Assistance Center’s November 2007 issue brief, *State health insurance coverage estimates: A fresh look at why state survey estimates differ from the CPS* and the Colorado Health Institute’s 2009 technical brief, *How many Coloradans are uninsured? A guide to the estimates*.

Figure 2. Number of months without health insurance, Colorado, 2008–09



NOTE: Graph is limited to Coloradans who indicated being uninsured at some time in the 12 months prior to the survey.

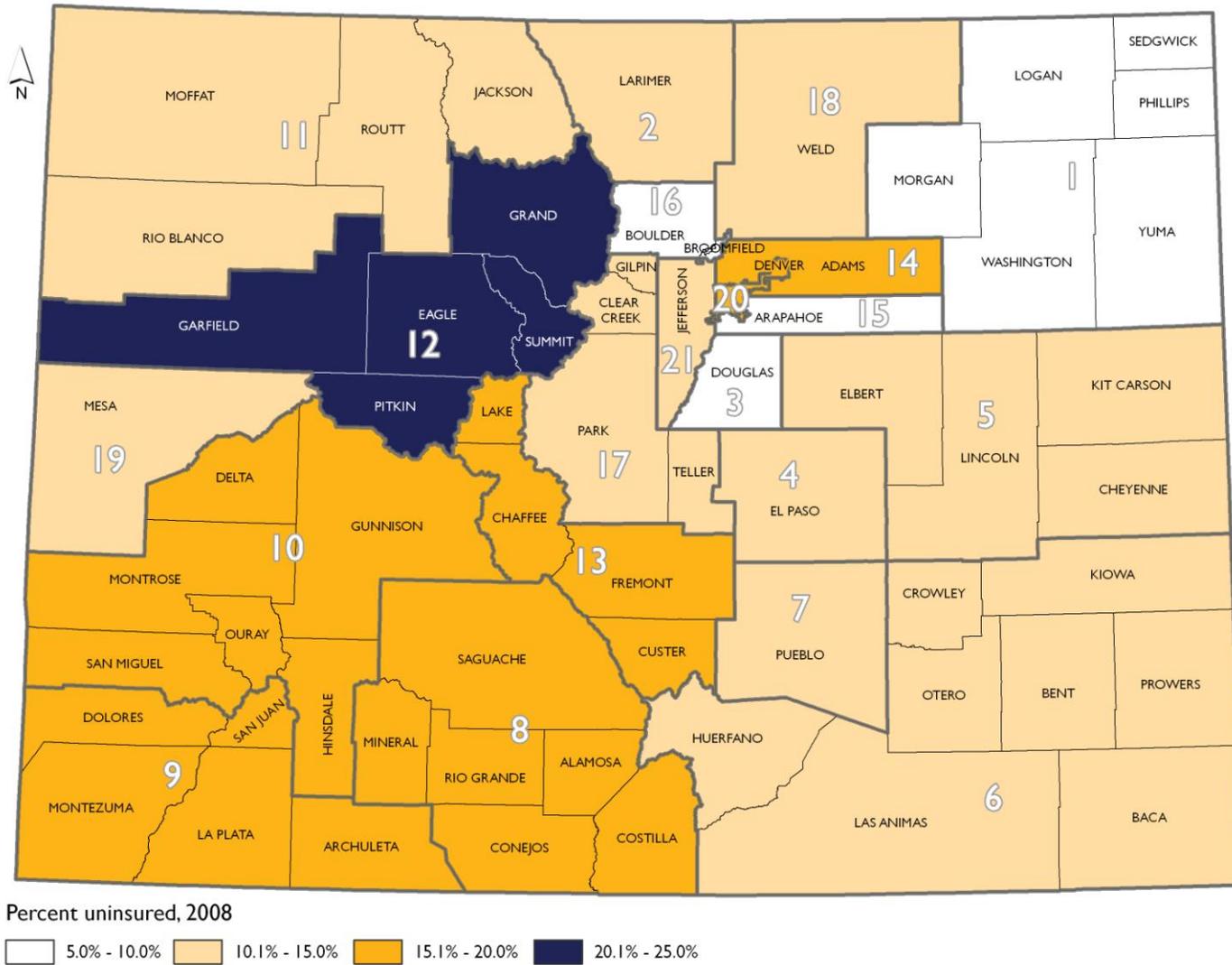
SOURCE: 2008–09 Colorado Household Survey

Regional estimates of uninsurance

The COHS was designed to report regional variations in uninsurance rates across Colorado. The survey sampling methods utilized 21 Health Statistics Regions (HSRs) developed by the Colorado Department of Public Health and the Environment (CDPHE) to ensure adequate sample size across Colorado’s geographically diverse regions for estimating sub-state insurance rates and other health and demographic characteristics of Colorado’s population. ⁶

⁶ The 21 Colorado Health Statistics Regions were developed by CDPHE for public health planning purposes. The boundaries for the regions were determined by the size of the population in each county (counties with smaller populations were aggregated) and key demographic factors for each county.

Figure 3. Uninsurance rates by 21 Colorado Health Statistics Regions, 2008-09



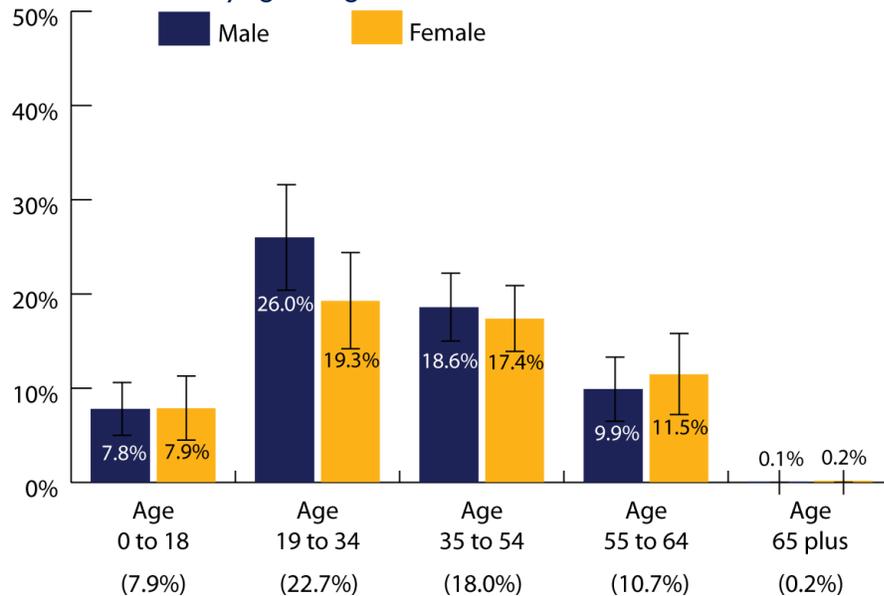
NOTE: Uninsured rates for the 21 Health Statistics Regions are provided in Appendix A.
 SOURCE: 2008-09 Colorado Household Survey

As illustrated in Figure 3, uninsurance rates vary significantly by geographic region across Colorado. The highest rates of uninsurance are concentrated along the Western Slope. Actual uninsured rates for each of the 21 regions are provided in Appendix A. Analysis and reasons for the observed geographic differences will be the focus of a future COHS issue brief.

Demographic profile of the uninsured

Understanding the unique characteristics of the uninsured is important for informing health insurance reforms in Colorado and elsewhere. Figure 4 displays uninsured rates by age group and gender, with the overall uninsured rate indicated in parentheses below each age group.

Figure 4. Uninsurance rates by age and gender in Colorado, 2008-09



NOTE: The bars indicate the 95% confidence interval around the uninsurance point estimate.

SOURCE: 2008–09 Colorado Household Survey

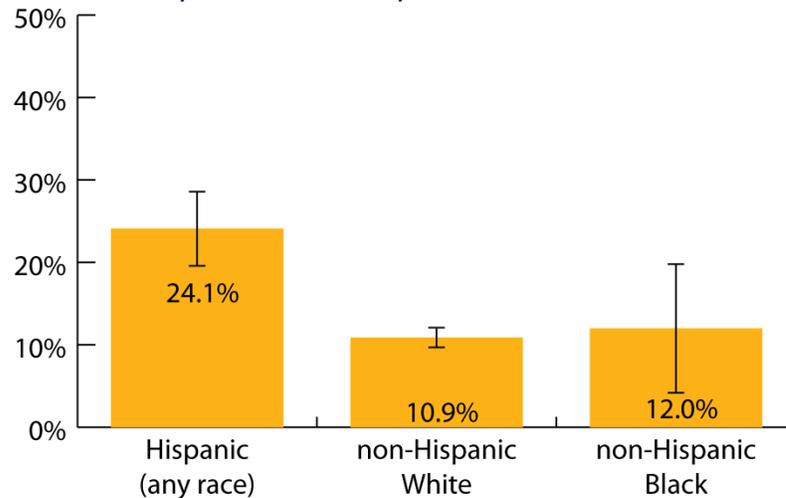
These results illustrate that working age adults between 19 and 54 years have the highest rates of uninsurance in Colorado. Men between the ages of 19 and 34 have the highest rate (26%), followed by women in the same age group (20%). Although this difference appears substantial, it is not statistically significant. Further, the overall uninsurance rate for men is not statistically different than the overall rate for women (14% versus 13% respectively).

Figure 5 provides a snapshot of uninsurance rates among Coloradans who identified their ethnicity as Hispanic as well as non-Hispanic Coloradans by self-identified race categories.⁷ Coloradans who identified their ethnicity as Hispanic were more likely to be uninsured (24%) compared with the non-Hispanic racial/ethnic groups displayed in Figure 5. Among the race categories, the only groups whose uninsured rates can be accurately reported are non-Hispanic Whites (11%) and non-Hispanic Blacks (12%).

⁷ Uninsured rates for race and ethnicity shown in Figure 5 differ slightly from estimates released in May 2009. The difference is due to classifying individuals as Hispanic or non-Hispanic for this issue brief.

However, the latter estimate must be interpreted with caution due its wide confidence interval of plus or minus eight percent.⁸ That is, the true uninsured estimate for non-Hispanic Blacks could be a low as 4% or as high as 20%. The number of non-Hispanic Asian, Native American, mixed race or “other” race respondents in the COHS sample were too small to generate reliable estimates and are not displayed.

Figure 5. Uninsurance rates by race and ethnicity in Colorado, 2008–09



NOTE: The bars indicate the 95% confidence interval around the uninsured point estimate. The Hispanic category includes all respondents, regardless of race, who identified Hispanic as their ethnic identity.

SOURCE: 2008–09 Colorado Household Survey

Income and uninsurance

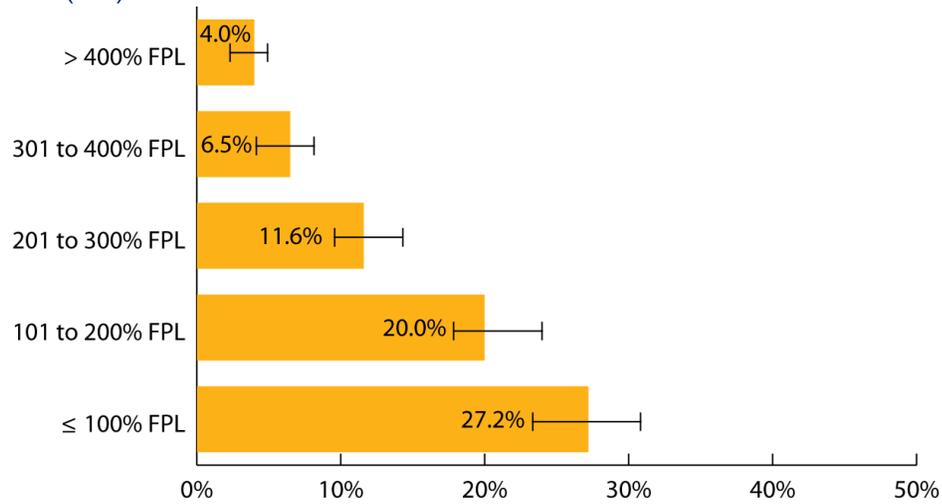
The COHS contains a series of questions about family income. Family income was based on the income of the target and his or her spouse, if applicable. If the target was 17 years or younger, the income questions were asked about the parent(s) or legal guardian(s). Respondents were asked to report total income from all sources, including employment income, pensions, Social Security, etc. Because the COHS was initiated in late 2008, annual income questions were asked for calendar year 2007. In addition respondents were asked separate questions about the immediate past month’s family income. For purposes of this issue brief, income is based on a calculated annualized income from the immediate prior month’s income.⁹

The COHS included questions about the demographics of all the members of the target individual’s household, including questions about the relationship of all household members to the target individual. From this information, it was possible to calculate the number of people in the target’s immediate family and the income attributed to the family unit. Once family income was established, it was calculated as a percent of the federal poverty level (FPL).

⁸ A 95% confidence interval (also called a margin of error) measures the accuracy of an estimate such as an uninsured rate calculated from the sample. A margin of error is the range within which the true measure of the population is expected to fall 95% of the time if random samples of the same population were taken multiple times.

⁹ A limitation to using the monthly figure is that respondents may have been more likely to report net monthly income as opposed to gross monthly income.

Figure 6. Colorado uninsured rates by estimated 2008 income as a percent of the federal poverty level (FPL)¹⁰



NOTE: The bars indicate the 95% confidence interval around the uninsurance point estimate. All uninsurance estimates for households with 2008 annual incomes greater than 100% of FPL were significantly different from households with annual incomes at or below 100% of FPL. In 2008, 100% of the FPL was \$21,200 for a family of four. SOURCE: 2008–09 Colorado Household Survey

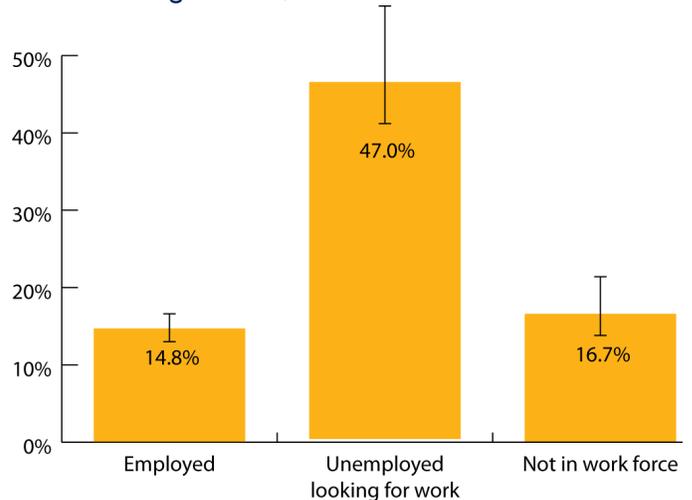
Individuals living in families with incomes at or below 100% FPL had the highest rate of uninsurance (27%) and were more likely to be uninsured than individuals living in families with higher incomes. In fact, the *probability* of being uninsured for individuals living in families with income at or below 100% FPL is 6.8 times greater than individuals living in families with income greater than 400% FPL (Figure 6).¹¹

Employment and insurance status

In addition to income information, the COHS collected extensive employment data for working age individuals. The employment information provided in this section has been limited to individuals ages 19 through 64.

Adults who were unemployed and looking for work had the highest uninsurance rate (47%), while 15 percent of employed adults were uninsured and 17 percent who were not in the workforce were uninsured (Figure 7).

Figure 7. Uninsured rates by employment status, Coloradans ages 19-64, 2008-09



NOTE: The bars indicate the 95% confidence interval around the uninsurance point estimate.

SOURCE: 2008–09 Colorado Household Survey

¹⁰ See Appendix B for additional 2008 poverty guidelines.

¹¹ The relative risk of 6.8 is the probability of being uninsured for the ≤100% FPL group divided by the probability of being uninsured for the >400% FPL group.

Of all uninsured Coloradans ages 19–64, 59 percent (an estimated 334,000) were employed. Of these, 48 percent worked in firms that employed 10 or fewer employees and 23 percent worked for employers with more than 100 employees (Figure 8).¹²

In 2008–09, approximately four percent (82,000) of working Coloradans who were not self-employed were offered health insurance by their employer, but declined coverage and were among the ranks of the uninsured. The COHS included a question about the primary reason why these working Coloradans declined their employer-sponsored insurance (ESI). The overwhelming majority (67%) declined ESI because it was too expensive (Figure 9).

Figure 8. Distribution of employed uninsured Coloradans by firm size, 2008–09

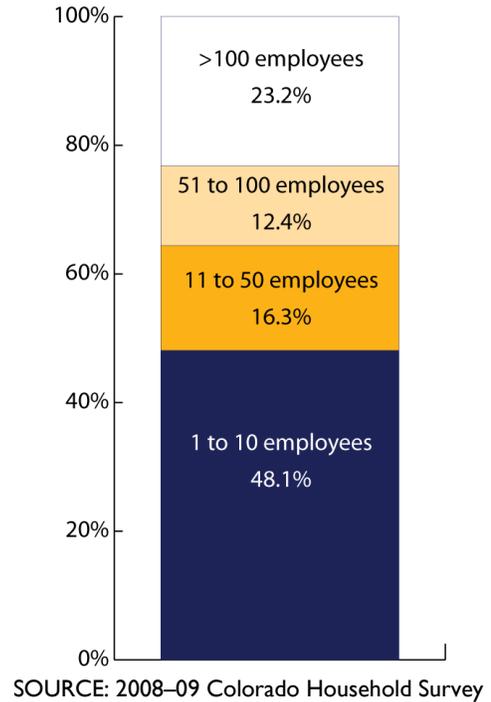
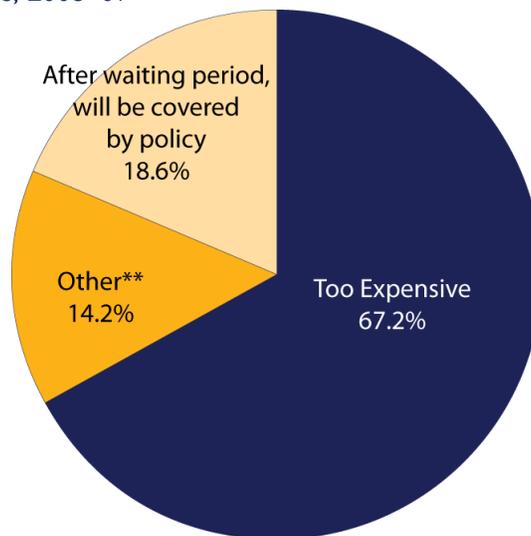


Figure 9. Reasons for declining employer-sponsored health insurance among working* uninsured Coloradans, 2008–09



*Does not include self-employed individuals

**Other category includes individuals who indicated they declined employer-sponsored health insurance because they rarely get sick, don't need health insurance, were not eligible or didn't know where to go.

SOURCE: 2008–09 Colorado Household Survey.

¹² Figure 8 displays the *composition* of the working uninsured by firm size, rather than *uninsurance rates* by firm size. Results showed that uninsured rates were higher among workers in small firms; for example, 26% of workers in firms with 1–10 employees were uninsured compared to 6% of workers in firms of 100 employees or more.

Conclusions

To summarize the findings from the COHS:

- Approximately 14 percent of Coloradans indicated that they lacked health insurance at the time of the survey;
- The majority of uninsured Coloradans indicated that they were uninsured for at least 4 months of the preceding 12 months, while over half indicated being uninsured for the entire year;
- Individuals and families with the lowest incomes were significantly more likely to be uninsured when compared to all other income categories;
- Young adults ages 19 to 34 had the highest uninsured rates of any age group;
- Although most uninsured Coloradans were employed at the time of the survey, those seeking employment were at particular high risk for being uninsured;
- Over half of all uninsured Coloradans who were employed worked for businesses with 50 or fewer employees;
- Most working uninsured Coloradans who were offered health insurance through their employer and turned it down did so because it was too expensive.

At the time the 2008-09 COHS was in the field, hundreds of thousands of Coloradans (678,000) indicated that they were without health insurance. The survey was fielded at the same time that Colorado and the nation were going into a significant economic recession. Although the full impact of the economic downturn is not fully reflected in these data, they do illuminate the relationship between employment, income and insurance status—a relationship that will be closely monitored over the coming years as health insurance reforms and coverage expansions are being implemented.

Appendix A

Uninsured population and rates of uninsurance by the 21 Health Statistics Regions, 2008–09

Region	Counties in region	Uninsured Population	Percent Uninsured	95% Confidence Interval
1	Logan, Morgan, Phillips, Sedgwick, Washington, Yuma	6,225	8.7	(5.3, 12.0)
2	Larimer	42,927	14.6	(9.2, 19.9)
3	Douglas	16,635	5.8	(2.6, 8.9)
4	El Paso	82,888	13.9	(10.0, 17.9)
5	Cheyenne, Elbert, Kit Carson, Lincoln	3,935	10.2	(4.8, 15.7)
6	Baca, Bent, Crowley, Huerfano, Kiowa, Las Animas, Otero, Prowers	11,319	14.9	(10.0, 19.9)
7	Pueblo	21,571	13.6	(7.0, 20.1)
8	Alamosa, Conejos, Costilla, Mineral, Rio Grande, Saguache	9,401	19.7	(9.9, 29.5)
9	Archuleta, Dolores, La Plata, Montezuma, San Juan	16,400	17.9	(11.9, 24.0)
10	Delta, Gunnison, Hinsdale, Montrose, Ouray, San Miguel	19,379	19.1	(13.8, 24.4)
11	Jackson, Moffat, Rio Blanco, Routt	5,176	11.4	(5.1, 17.6)
12	Eagle, Garfield, Grand, Pitkin, Summit	35,411	20.7	(12.3, 29.1)
13	Chaffee, Custer, Fremont, Lake	13,779	17.7	(12.0, 23.4)
14	Adams	77,735	17.9	(13.1, 22.7)
15	Arapahoe	40,360	7.2	(3.8, 10.5)
16	Boulder	30,820	8.7	(4.7, 12.8)
17	Clear Creek, Gilpin, Park, Teller	7,136	13.1	(7.4, 18.8)
18	Weld	26,707	10.6	(5.9, 15.3)
19	Mesa	21,410	14.7	(9.7, 19.7)
20	Denver	117,919	19.4	(13.6, 25.3)
21	Jefferson	71,305	13.1	(9.6, 16.7)

SOURCE: 2008–09 Colorado Household Survey

Appendix B

Federal poverty guidelines by family size 2008

Family Size	100%	200%	300%	400%
1	\$10,400	\$20,800	\$31,200	\$41,600
2	\$14,000	\$28,000	\$42,000	\$56,000
3	\$17,600	\$35,200	\$52,800	\$70,400
4	\$21,200	\$42,400	\$63,600	\$84,800
5	\$24,800	\$49,600	\$74,400	\$99,200
6	\$28,400	\$56,800	\$85,200	\$113,600
7	\$32,000	\$64,000	\$96,000	\$128,000
8	\$35,600	\$71,200	\$106,800	\$142,400
9	\$39,200	\$78,400	\$117,600	\$156,800
10	\$42,800	\$85,600	\$128,400	\$171,200

SOURCE: United States Department of Health and Human Services