



## Tracking Health Insurance Coverage in 2020-2021

**Federal survey data challenges affected estimates of the uninsured population during the COVID-19 pandemic, but Medicaid and Marketplace coverage gains appear to have offset losses of employer coverage during this period.**

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### KEY POINTS

- Federal surveys relied on by researchers and policymakers for estimates of health insurance coverage have been disrupted by the COVID-19 pandemic, potentially influencing the accuracy of their estimates.
- Recent survey data suggest a stable uninsured rate in 2020 despite the pandemic and related recession, with estimates ranging from 8.6 percent to 9.7 percent of the population (28.0 million to 31.6 million people).
- Examination of other available data sources provides insights about changes in coverage by source and the overall stability of insurance rates in 2020. Administrative data over the same period suggest that increases in Medicaid and Marketplace enrollment roughly offset decreases in employer coverage, potentially explaining the survey findings.
- More recent administrative data in 2021 show ongoing gains in Medicaid (1.7 million between January and April 2021) and Marketplace coverage (1.6 million between August 2020 and August 2021), which suggest that the uninsured rate may be lower now than it was in early 2021.
- Uninsured rates continue to be higher in certain populations, including Latinos (18.3 percent) and Blacks (10.4 percent), people with incomes below the poverty level (17.2 percent), and residents of states that have not expanded Medicaid (17.6 percent).
- These results can inform Open Enrollment efforts and strategies being taken to expand coverage further in 2022.

### BACKGROUND

The COVID-19 pandemic and its economic fallout raised concerns that the number of uninsured individuals would increase in 2020, with higher unemployment in 2020 potentially causing significant reductions in employer coverage. Federal surveys estimated that approximately 30 million U.S. residents were uninsured in 2019, before the pandemic.<sup>1</sup> Understanding the trends in health insurance coverage during the months of the pandemic and the impacts of recent policy changes can guide future decision-making.

Efforts to understand the health insurance dynamics of the pandemic are complicated by the fact that the pandemic also created challenges in conducting government-administered surveys that provide the most robust measurement of insurance coverage.<sup>2</sup> As a result, survey measurement of insurance may have more uncertainty than normal, though the magnitude of these impacts are not yet known.<sup>3</sup>

The purpose of this Issue Brief is to highlight challenges using federal survey data for estimates on health coverage and uninsurance in 2020 and early 2021; examine alternative data sources for insights into coverage changes; and summarize what is known to date about health coverage and uninsurance during this period.

## FEDERAL SURVEY CHALLENGES DURING COVID-19 PANDEMIC

The mode of data collection and timing of each federal survey influences how its administration was affected by the COVID-19 pandemic. Table 1 below summarizes the nationwide surveys used to estimate health insurance coverage, their typical mode of collection, and impact of the pandemic on survey administration.

**Table 1: Summary of Federal Health Insurance Surveys During COVID-19 Pandemic**

Survey	Normal Data Collection Mode	Changes During Pandemic	Timing of Release	Other Notes
American Community Survey (ACS)	Mail; in-person; phone; internet	Suspended mail-outs from mid-March to June 2020	Annually: 2020 ACS 1-year Experimental Estimates November 2021	Census Bureau determined that the pandemic affected data quality to a degree that it would not release its standard 2020 estimates.
Current Population Survey Annual Social and Economic Supplement (CPS – ASEC)	In-person; phone	Suspended in-person and switched to telephone for spring 2020	Annually: 2021 CPS ASEC (covering 2020) September 14, 2021	March 2020 response rate 10 points lower than prior years. March 2021 response rate slightly higher, but lower income households less likely to respond
National Health Interview Survey (NHIS)	In-person	Switched to telephone March 19, 2020. Personal visits to households resumed July 2020, although the majority of interviews were completed by phone. Starting in August 2020 a portion of 2019 respondents were re-interviewed in 2020	Quarterly updates, most recently 2021Q1 released August 31, 2021	Lower response rate, particularly among younger and lower-income respondents.
Medical Expenditure Panel Survey – Insurance Component (MEPS-IC)	Mail; phone; in-person (largest employers)	Survey responses submitted online. No in-person visits	Annually: Typically, private sector tables in July and public-sector tables in November the year after data collection	Timing of response may have varied by firm size confounded by changing economic conditions throughout 2020.
Household Pulse Survey (HPS)	Internet	n/a	Bi-weekly	Very low response rates compared to other federal surveys; no pre-pandemic baseline

## American Community Survey (ACS)

The American Community Survey (ACS) is the nation's largest national survey of households and is often considered to be the "gold standard" for demographic and financial information. The ACS is an ongoing demographic survey conducted by the Census Bureau that provides information on a yearly basis. Almost 300,000 households are surveyed each month for the ACS for information regarding household characteristics, health insurance, income, educational attainment, and other information. The large sample size allows researchers to use the survey for uninsurance rate estimates in different geographic units and examine the demographic composition of uninsured populations. For example, ASPE prepares national, state, and local estimates of the remaining uninsured population in the U.S. using the ACS Public Use Microdata Sample (ACS PUMS).<sup>4</sup>

By design, the ACS is a continuously fielded survey and collects data for a new sample each month. Due to the pandemic, from mid-March through June 2020, the ACS suspended mail and in-person operations. In July 2020, it resumed limited mail operations, and in-person interviewing resumed for all areas in September 2020.

In July 2021, the Census Bureau detailed the impacts of these data collection challenges on the ACS.<sup>5</sup> It noted that the "2020 ACS data collection had the lowest response rate ever for the survey at 71 percent, down from 86 percent in 2019 and 92 percent in 2018." In addition to the reduced response rate, there was evidence that those who did respond differed systematically from those who did not, in terms of social, economic and housing characteristics, raising concerns that 2020 estimates suffer from nonresponse bias. More specifically, nonresponse was more common among people with lower incomes, lower educational attainment, and who were less likely to own their home. The Census Bureau reported that standard nonresponse adjustments to the one-year estimates could not fully address the differences. As a result of these challenges, the 2020 ACS 1-year data products do not meet the Census Bureau's statistical data quality standards and will not be released.<sup>6</sup>

Instead, the Census Bureau will release experimental 2020 ACS products for research purposes, later than the typical ACS release schedule.<sup>7</sup> Along with the experimental weights and 2020 ACS 1-year Public Use Microdata Sample (PUMS) file, the Census Bureau plans to release a research paper detailing the methodology for the experimental weights.

## Current Population Survey Annual Social and Economic Supplement (CPS ASEC)

The Current Population Survey (CPS), jointly sponsored by the Census Bureau and the U.S. Bureau of Labor Statistics (BLS), is a monthly survey and the primary source of U.S. labor force statistics. A voluntary survey of approximately 100,000 households, the CPS is fielded via phone and in-person interviews. The Annual Social and Economic (ASEC) Supplement collects additional data including work experience, income, and health insurance coverage and is conducted annually in February, March, and April.

The CPS ASEC surveys roughly 100,000 addresses and asks about coverage for each month in the prior year. Roughly 75 percent of these interviews occur in March.<sup>8</sup> While it is a much smaller survey than the ACS, the CPS ASEC captures socioeconomic data in more detail, particularly relating to income and receipt of government benefits.

The 2020 CPS ASEC asked respondents to report their health insurance coverage for 2019. On March 20, 2020, Census Bureau field staff suspended in-person interviewing. While some CPS ASEC interviews were complete, the bulk of interviews typically occur during March. When possible, telephone interviews replaced in-person interviewing as the means of primary data collection. This transition may have introduced response bias related to the method used for data collection, as those with a telephone number may systematically differ from those without a phone number in ways not captured in the CPS ASEC. Census Bureau staff noted that

disproportionately capturing those in households reachable by telephone may overstate the proportion with employer coverage.<sup>9</sup>

In describing the 2020 CPS ASEC's estimates of 2019 coverage, a Census Bureau working paper cautioned that "[g]iven the circumstances during CPS ASEC data collection, we cannot disentangle real changes in health insurance coverage between 2018 and 2019 from changes due to operational adaptations due to the pandemic."<sup>10</sup>

For the 2021 CPS ASEC, fielded February – April 2021, response rates were higher than the prior year (76 percent vs. 73 percent) but still well below the pre-pandemic level, which was consistently above 80 percent. Again, there are concerns that those who did respond differed meaningfully from those who did not. In an analysis of the W-2 earnings of households responding to the survey in 2020 and 2021, the Census Bureau found that households with higher incomes were more likely to respond than those who did not, a relationship that did not exist pre-pandemic. This finding raises concerns about whether traditional adjustment measures are adequate to correct any potential bias.<sup>11</sup>

### **National Health Interview Survey (NHIS)**

The National Health Interview Survey (NHIS) is the largest survey focused primarily on the health of the civilian, noninstitutionalized US population. While smaller than the Census Bureau surveys, it has a much richer set of health-related questions given its focus. The NHIS is administered by the National Center for Health Statistics (NCHS) which is part of the Centers for Disease Control and Prevention (CDC). Typically, the NHIS is conducted in a face-to-face format. Each month's sample is designed to be nationally representative and data collection is continuous throughout the year. In 2019, the NHIS questionnaire was redesigned to better meet the needs of data users. The current design contains approximately 30,000 sample adult and 9,000 sample child interviews annually. The flow and content of the questions pertaining to health insurance programs covered are similar to questions covered in the 1997-2018 NHIS. The main difference is that instead of asking health insurance for all family or household members, one adult and one child (if present) are selected from each household to receive these questions.

On March 19, 2020, the NHIS switched to telephone-only data collection, which led to lower response rates, declining from approximately 58 percent in the first quarter (Q1, i.e. January – March) to 41 percent in Q2 (April – June), and rates continued to be lower than usual throughout 2020.<sup>12</sup> An additional change made in the NHIS for 2020 was the addition of a follow-back component in the second half of 2020, in which a portion of 2019 NHIS respondents were re-interviewed in 2020. In an analysis of survey respondents in Q2 compared to Q1, NCHS staff found that higher socio-economic status households were overrepresented in Q2. The Q2 2020 early release estimates used modified weighting procedures to attempt to adjust for measurable differences in respondents as a result of the survey mode change. In the most recent survey release, NCHS noted that estimates for 2020 may still be affected by these changes.<sup>13</sup>

### **Medical Expenditure Panel Survey – Insurance Component (MEPS-IC)**

The Medical Expenditure Panel Survey – Insurance Component (MEPS-IC) surveys business establishments to produce national and state level estimates of employer-sponsored insurance coverage, costs, and enrollment. The MEPS-IC is sponsored by the Agency for Healthcare Research and Quality (AHRQ) and fielded by the Census Bureau.

In 2019 the response rate for the private sector sample was 59.2 percent; in 2020 the equivalent response rate was 56.1 percent. While this is a slight decrease, response rates have been steadily declining in the survey since 2012 and the 2020 figure does not represent a dramatic departure from that trend.<sup>14</sup> Because the MEPS-IC surveys employers rather than households, it may have been less affected by the pandemic than surveys

that typically interview households in-person. However, because unemployment changed significantly during the year, estimates of employment and insurance coverage may be correlated by timing of response. AHRQ is investigating whether these factors influence estimates from the 2020 MEPS-IC data.<sup>15</sup>

### Household Pulse Survey (HPS)

The Census Bureau, along with other federal statistical agencies, developed the Household Pulse Survey (HPS) in response to the coronavirus pandemic and corresponding economic recession. The HPS is a short online survey designed to measure how the COVID-19 pandemic is affecting the social and economic well-being of households. The survey covers a wide array of topics, including employment status, food security, housing security, and physical and mental wellbeing. The survey has grown over time and added new domains with subsequent waves. While response rates vary by survey wave, the most recent report shows the HPS selects roughly 1 million households for its sampling frame and receives approximately 66,000 respondents.

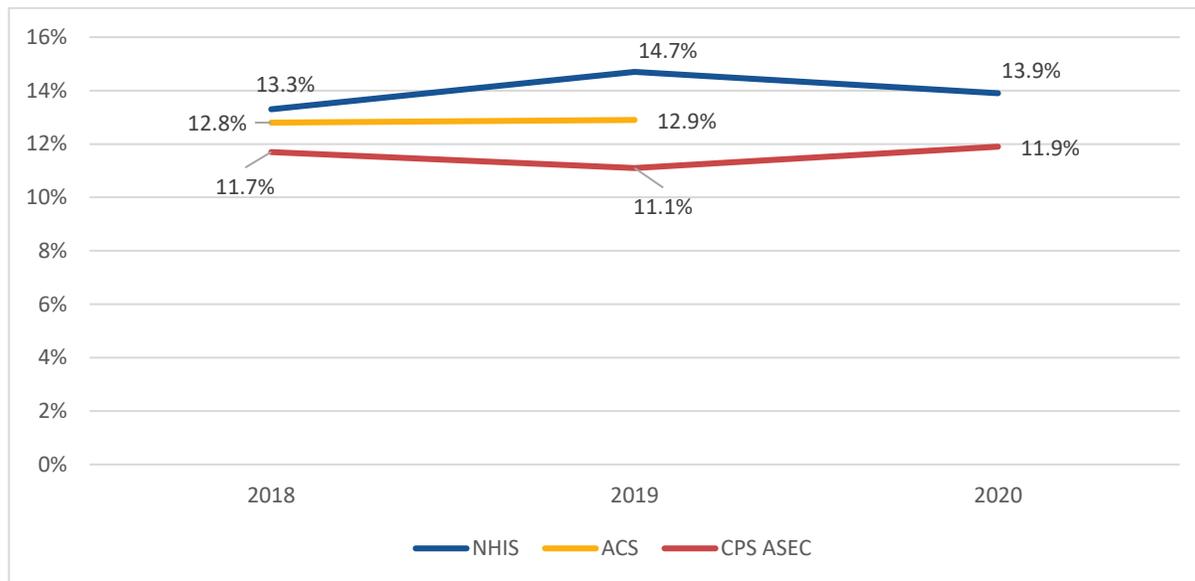
A challenge with HPS data is that it has a high non-response rate overall, as well as for certain individual questions. The overall response rate is roughly 7 percent.<sup>16</sup> Even among respondents, roughly 20 percent of respondents fail to complete all 8 health insurance questions, which forces researchers to make assumptions about the nature of non-respondents. Despite these limitations, the HPS is the most recent federal survey data source available and is frequently updated.

## SURVEY ESTIMATES OF UNINSURED POPULATION IN 2020 AND EARLY 2021

### Federal Surveys

Figure 1 presents the trends in non-elderly adult\* uninsured rates 2018-2020 estimated from federal surveys. CPS ASEC estimates of insurance are “ever uninsured” during the year and, as a result, the survey’s estimates of uninsurance are lower than the point-in-time estimates for the NHIS and ACS.

**Figure 1: Federal Survey Estimates of Uninsured Rates Among Non-Elderly Adults, 2018-2020**



\* The NHIS estimates is for adults aged 18-64 and the CPS and ACS estimates are for adults aged 19-64.

### ***National Health Interview Survey (NHIS)***

The most recently published early release NHIS data extend through Q1 2021. They, along with the full year 2020 data, show that the non-elderly adult uninsurance rate (13.9 percent) was lower than, but not significantly different from, 2019 (14.7 percent). Overall, 31.6 million persons of all ages were uninsured at the time of interview in 2020; this estimate is lower than, but not significantly different from, 2019 where 33.2 million persons of all ages were uninsured. While there is potential for nonresponse bias in these estimates, they do not on the whole show evidence for an increased uninsured rate in 2020 and early 2021.

### ***Current Population Survey Annual Social and Economic Supplement (CPS ASEC)***

In September 2021, the Census Bureau released the 2021 CPS ASEC estimates for 2020, which showed little change in insurance since 2018: the non-elderly adult uninsured rate for 2020 was 11.9 percent, versus 11.1 percent in 2019 and 11.7 percent for 2018.<sup>17</sup> The survey did find that the composition of insurance coverage changed somewhat, with increasing numbers of individuals with public coverage and fewer with private coverage, compared to 2018. Notably, the survey found no change in the number with Medicaid even though administrative data (discussed below) show increased Medicaid enrollment during this period. One possible explanation for this discrepancy is that the CPS ASEC uses an “ever-on” measure for health insurance; this means that those already on Medicaid in January or February 2020 who maintained coverage throughout the year when they might otherwise have lost it mid-year would not increase the ever-on Medicaid estimate, though they would increase point-in-time measures and administrative enrollment counts. Prior to the COVID-19 pandemic, the CPS ASEC was found to undercount Medicaid enrollment.<sup>18</sup> Nonresponse bias not fully accounted for by survey weights may have led to a further undercount of Medicaid enrollment changes during this period.

The CPS ASEC estimates also indicate substantial disparities in coverage. Uninsured rates in 2020 were significantly higher among Latinos (18.3 percent) and Blacks (10.4 percent) compared to Asians (5.9 percent) and Whites (5.4 percent). People with incomes below the federal poverty level (FPL) experienced an uninsured rate of 17.2 percent, compared to 3.4 percent among those with incomes above 400 percent of FPL. Residents of states that have not expanded Medicaid were nearly twice as likely to be uninsured compared to those living in expansion states (17.6 percent vs. 8.9 percent).

### ***Household Pulse Survey (HPS)***

A study using HPS data found that rates of employer coverage declined throughout 2020 (particularly in the first months of the pandemic), while enrollment in other types of health insurance coverage increased.<sup>19</sup> These findings are generally consistent with results from the CPS and NHIS, which suggest that public programs played an important role in offsetting declines in employer coverage during 2020.

### ***American Community Survey (ACS)***

The Census Bureau is expected to release its experimental ACS estimates for 2020 in November 2021.

## **Non-Government Survey Estimates**

### ***Commonwealth Fund – 2020 Health Insurance Survey***

The Commonwealth Fund conducts a Biennial Health Insurance Survey. The telephone survey samples non-elderly adults, stratified by income. Responses rates in 2020 were 7.7 percent for landlines and 6.5 percent for cellular phones. The 2020 version was conducted during the first half of 2020 and found 12.5 percent of adults were uninsured, which was not a statistically significant change compared to 2018.<sup>20</sup>

## **Urban Institute's Health Reform Monitoring Survey**

The Urban Institute's Health Reform Monitoring Survey (HRMS) was launched in 2013 and is an ongoing survey with respondents drawn from an internet panel of approximately 55,000 maintained by a private polling firm. The HRMS completion rate is roughly 5 percent.<sup>21</sup> Panel members agree to participate in regular surveys, including the HRMS, and typically stay in the panel for two years. Recent field dates were March 2019, March/April 2020, and April 2021. The survey found that the national nonelderly adult uninsured rate stayed at approximately 11 percent from March 2019 to April 2021.<sup>22</sup>

## **ADMINISTRATIVE DATA AND OTHER SOURCES**

Unlike survey data, administrative data on coverage enrollment was generally not subject to increased data quality concerns during the pandemic. However, administrative data can only capture information on who has specific types of coverage and cannot provide insight about those who lack health insurance coverage, which typically must come from surveys. Administrative data on Medicare, Medicaid, and Marketplace enrollment can provide enrollment trends in these programs during the pandemic. There is not, however, a comprehensive administrative data source on employer coverage, though there are surveys of employers that provide information in this area. Data from health plans' financial filings can also provide useful information. This section examines these data sources and what is known about these coverage types in 2020 and early 2021.

### **Medicaid**

The Centers for Medicare and Medicaid Services (CMS) publishes monthly Medicaid and Children's Health Insurance Program (CHIP) enrollment reports based on applications, eligibility, and enrollment data submitted by states. As of September 2021, preliminary data are available through April 2021.<sup>23†</sup> In April 2021, there were 82.3 million total Medicaid and CHIP beneficiaries. This represents an increase of 11.6 million from February 2020 (70.7 million) before the COVID-19 pandemic. All states and the District of Columbia experienced an increase in Medicaid enrollment during this period, with increases ranging from 10 percent (AK, CA, DC) to 31 percent (UT).<sup>24</sup> (Appendix Table 1). Three states – Utah, Idaho, and Nebraska – expanded Medicaid during 2020, extending Medicaid coverage to adults with incomes up to 138 percent Federal Poverty Level (FPL), which contributed to the increase in adult Medicaid enrollment.<sup>25</sup> Moreover, starting in March 2020, states were required to suspend eligibility redeterminations and maintain coverage for all existing enrollees, in order to receive a 6.2 percentage point increase in their Federal Medical Assistance Percentage (FMAP) under the Families First Coronavirus Response Act (FFCRA).<sup>‡</sup>

Based on previous recessions' effect on enrollment in the Medicaid program, Medicaid enrollment shifts typically lag behind other social supports (e.g., unemployment insurance, Supplemental Nutrition Assistance Program (SNAP) benefits) that provide financial coverage for immediate needs.<sup>26,27</sup> Early in the COVID-19 pandemic, multiple research groups projected changes in health coverage and Medicaid enrollment based on

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<sup>†</sup> States and CMS update data with retroactive enrollment and revised data is released regularly.

<sup>‡</sup> The Families First Coronavirus Relief Act (FFCRA) established an additional 6.2 percentage point increase in states' Federal Medical Assistance Percentage (FMAP) to help states manage the increased costs associated with COVID-19. In order for states to receive the 6.2% percentage point increase, they must meet the following criteria: 1) Maintain the same eligibility standards and policies as were in place as of January 1, 2020 2) Do not charge premiums to Medicaid beneficiaries 3) Cover all cost-sharing for services related to testing, and treatment related to COVID-19 4) No beneficiaries' Medicaid coverage is to be terminated if they were enrolled in Medicaid on or after March 18, 2020, regardless of any changes in circumstances or redeterminations at scheduled renewals that would otherwise result in termination. States may terminate coverage for individuals who request a voluntary termination of eligibility, or who are no longer considered to be residents of the state. The 6.2 percentage point increase in FMAP will be effective through the last day of the quarter the month the PHE ends. As of September 2021, all states have complied with the requirements in section 6008 of the FFCRA and have received the FMAP increase.

unemployment rates and the economic recession. Estimated increases in Medicaid enrollment ranged from 5-30 million individuals.<sup>28,29,30,31,32</sup> Most of these initial estimates were higher than reported increases in Medicaid enrollment to date. Once administrative data from the Spring of 2020 became available, CMS and other researchers found the increase in Medicaid enrollment was not driven by the increase in new applications (for example, from individuals who lost their job/coverage and became Medicaid-eligible); in fact, the growth in enrollment outpaced the increase in new applications.<sup>33 34</sup> Instead, the growth in Medicaid enrollment was largely driven by a requirement for states to suspend eligibility redeterminations in order to receive a 6.2 percentage point increase in their FMAP per the FFCRA provision. To further support states in their response to COVID-19, CMS developed numerous strategies and flexibilities to support Medicaid and CHIP operations during this time, often resulting in expedited enrollment and retention (e.g., presumptive eligibility, continuous eligibility, waiving premiums and cost sharing, regulatory authority to apply exceptions to the timeliness standards for application and renewal processing). Additional research found reported growth in Medicaid enrollment was largest in states that experienced smaller increases in unemployment rate.<sup>35</sup>

In addition to the research community, the health insurance industry also expected commercial enrollment to decrease and Medicaid enrollment to grow in response to the high unemployment rate in Spring 2020. Although Medicaid enrollment increased during 2020, the increase was smaller than the industry expected. Possible explanations for the lower increase include that those who lost their jobs at the beginning of the pandemic were more likely to be uninsured already, coverage provisions in the ACA played a critical role helping people maintain and gain coverage, economic support from FFCRA and the CARES Act helped stimulate economic recovery, and many employers opted to furlough rather than terminate their employees to maintain their benefits (e.g., health insurance).<sup>36</sup>

## Nongroup Coverage

The nongroup insurance market consists of on- and off-Marketplace individual insurance coverage, as well as grandfathered and transitional policy plans that are not subject to most ACA reforms. Marketplace insurance is purchased through the federal HealthCare.gov platform and State-based Marketplaces (SBMs). Off-Marketplace insurance is by purchased directly from insurers. Federal advanced premium tax credits (APTCs) are available for Marketplace coverage, depending on a person’s income. A large majority of Marketplace enrollees received premium tax credits (87 percent of enrollees in February 2019 and 86 percent in February 2020 and February 2021).<sup>37</sup> Effectuated enrollment was 10.6 million in February 2019, 10.7 million in February 2020, and 11.3 million in February 2021, as shown in Table 2.<sup>5</sup>

**Table 2: Marketplace Enrollment January 2019 - August 2021**

Marketplace Enrollment Measure	Enrollment (millions)		
	2019	2020	2021
Open Enrollment Period (OEP) Plan Selections	11.4	11.4	12.0
February Effectuated Enrollment	10.6	10.7	11.3
August Effectuated Enrollment	9.7	10.6	12.2
February 15 – August 15 HealthCare.gov SEP Plan Selections	0.6	0.8	2.1

Sources: Centers for Medicare & Medicaid Services Open Enrollment Report<sup>38</sup>, Effectuated Enrollment Reports<sup>34</sup> and Special Enrollment Report.<sup>38</sup>

The American Rescue Plan Act of 2021 (ARP) enhances and expands eligibility for APTCs to Marketplace consumers for 2021 and 2022. Under the ARP, an estimated 79 percent of HealthCare.gov enrollees became

<sup>5</sup> Effectuated enrollment is the number of consumers who pay or authorize payment of premiums for the health plan they signed up for on their Marketplace application.

eligible for health plans with zero premiums, and 87 percent became eligible for low premium plans (\$50 or less per month).<sup>39</sup> The ARP also offers enhanced 2021 Marketplace subsidies to consumers who are in households receiving unemployment compensation for any week in 2021.<sup>40</sup> The federal Marketplace on the HealthCare.gov platform for 36 states offered a COVID-19 Special Enrollment Period (SEP) from February 15, 2021, through August 15, 2021. The fifteen states (including the District of Columbia) that run SBMs also made available a COVID-19 SEP, many with a similar or longer timeframe.<sup>41</sup> Without the COVID-19 SEP, consumers could only enroll in the Marketplace if they had a qualifying life event outside the open enrollment period (OEP). These ARP-enhanced APTCs led to increased Marketplace enrollment during the SEP. There were 2.8 million total SEP plan selections for HealthCare.gov and SBM states between February 15 and August 15, 2021, far higher than the number of new plan selections during the same time period in 2019 and 2020 (Table 2). Overall, a total of 12.2 million people had effectuated Marketplace coverage in August 2021 compared to 10.6 million in August 2020.<sup>42</sup>

Individual nongroup coverage is also available off-Marketplace for minimum essential coverage. Estimates of the number of persons enrolled in off-Marketplace individual coverage (which includes non-ACA compliant coverage such as grandfathered and grandmothers plans) range between 3.7 and 5 million in 2019, but we do not have estimates for 2020.<sup>43,44,45</sup>

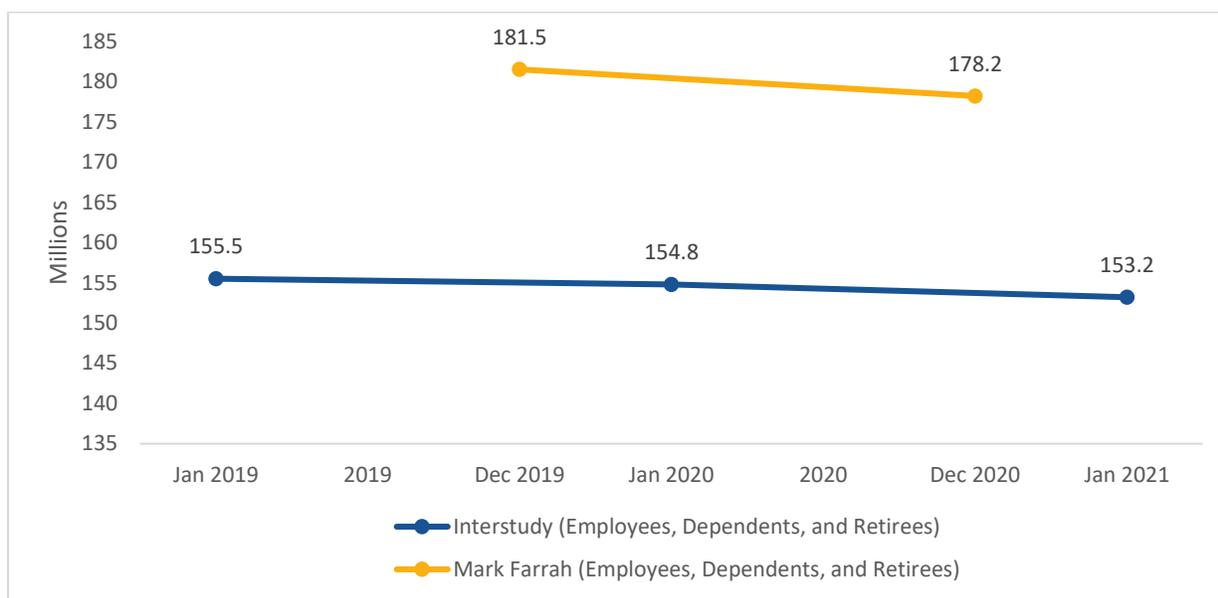
### Employer Coverage and Other Group Health Plans

Multiple data sources exist related to employer coverage, but there is no single definitive administrative data source for this coverage type. Interstudy (owned by Clarivate) surveys insurers. Mark Farrah Associates uses data from statutory reports from the National Association of Insurance Commissioners (NAIC), the California Department of Managed Care, other state agencies, and the Centers of Medicare & Medicaid Services (CMS, including Medical Loss Ratio reports) to estimate enrollment in group health plans. The MEPS-IC discussed earlier uses a survey of employers to provide similar estimates.

Figure 2 shows estimates of the number of persons enrolled in group health plans. Both Interstudy and Mark Farrah Associates estimated a decrease in group coverage for 2020, with a greater decrease for Mark Farrah Associates (-3.3 million, or -1.8 percent) compared to Interstudy (-1.6 million, or -1.0 percent).<sup>46,47</sup>

The 2020 MEPS-IC found that the number of private-sector workers enrolled in employer coverage decreased modestly from 62.5 to 60.8 million from 2019 to 2020, a 2.7 percent decline that was not statistically significant.<sup>48</sup> These estimates of those with employer coverage are lower than those from Mark Farrah and Interstudy above because they only include workers, not dependents, and do not include those with retiree coverage. Among small employers (<50 employees), the 2020 MEPS-IC found that enrollment in employer coverage declined from 9.6 to 7.9 million due to the reduction in employment among small employers. Among large employers (100+ employees), enrollment in employer coverages was steady from 2019 to 2020.

**Figure 2: Group Insurance Enrollment Trends 2019-2021**



Sources: Interstudy (includes off-Marketplace individual insurance)<sup>44</sup> and Mark Farrah Associates<sup>43</sup>

Information on employer coverage can also be gleaned from financial filings to the SEC from publicly-traded insurance companies, which contain information on the number and type of enrollees they have. While insurers report their membership differently, collectively, this reporting gives some sense of changes in the number with employer coverage. Membership in self-insured group insurance from the insurers listed in Table 3 fell just over 2 percent from 2019 to 2020, though with significant variation across insurers.

**Table 3: Insurer Membership Reported in Financial Filings**

Insurer	Coverage Description	Membership (millions)		Change	
		2019	2020	Members	Percent
UnitedHealth	Fully Insured	8.6	7.9	-0.7	-7.8%
UnitedHealth	Self-Insured	19.2	18.3	-0.9	-4.6%
Anthem	Local Group	15.7	15.6	-0.1	-0.4%
Anthem	Individual	0.7	0.7	0.0	-0.6%
Anthem	National Accounts	7.6	7.7	0.1	1.8%
Anthem	BlueCard	6.1	6.1	0.0	0.0%
Anthem	FEHB	1.6	1.6	0.0	1.8%
CVS	Fully Insured	3.6	3.3	-0.3	-9.3%
CVS	Self-Insured	14.2	13.6	-0.5	-3.6%
Cigna	Commercial	2.1	2.1	0.0	1.3%
Humana	Fully Insured	0.9	0.8	-0.1	-14.4%
Humana	Self-Insured	0.5	0.5	0.0	-4.6%

Source: ASPE analysis of insurer 10-K filings

Many adults lost jobs or were furloughed during the pandemic, but did not lose their employer coverage. A Commonwealth Fund survey in May-June 2020 found that 21 percent of adults lost their job or were furloughed because of COVID-19; but among those who originally had employer coverage through work, more

than half (53 percent) still maintained that coverage through their furloughed job.<sup>49</sup> Similarly, while the Bureau of Labor Statistics reported that 51.8 percent of private sector establishments (employing 78.3 million workers) told employees not to work in the third quarter of 2020, 41.9 percent of these establishments paid health insurance premiums for some or all furloughed employees.<sup>50</sup>

## CONCLUSION

Overall, the combined evidence from a variety of data sources to date indicates that the number of uninsured people in the U.S. did not change substantially during the first 12 months of the COVID-19 pandemic. However, delays and challenges with nationally representative data sources limit our ability to accurately estimate the number of uninsured non-elderly American adults in 2020 and early 2021. But examination of other available data sources provides insights about changes in coverage by source and the overall stability of insurance rates in 2020.

Administrative data and information on employer coverage show that the moderate decline in employer coverage during the recession noted in several data sources (approximately 2-3 million or 1-3 percent, depending on the data set) was counterbalanced by the greater than 10 million increase in Medicaid enrollment due to federal continuous coverage requirements and to a lesser extent Marketplace growth in 2020.

The more substantial SEP enrollment in the spring and summer of 2021, including the implementation of the ARP's expanded Marketplace subsidies, as well as ongoing growth in Medicaid enrollment, suggests that the uninsured rate may be lower than the pre-pandemic rate; this can be determined once definitive data for 2021 are available. Federal policy actions to maintain or create coverage options for those who might otherwise become uninsured and the rapid economic recovery appear to have tempered the impacts of the pandemic on the total uninsured population. Future federal survey data – ideally after the resolution of 2020's pandemic-related data quality issues – will be essential to clarify these trends.

While overall uninsured rates appear to be largely stable in 2020 and early 2021, federal survey data still indicates sizable disparities in who lacks health insurance coverage. Latinos and Blacks, people with low incomes, and those living in non-expansion states continue to experience much higher uninsured rates than Whites, higher-income households, and those in expansion states.

The information in this report can be used to inform ongoing efforts to expand coverage to the remaining population of approximately 30 million people without health insurance. Increased funding for outreach to the uninsured, enhanced subsidies from the ARP, and the launch of the Marketplace Open Enrollment Period for 2022 all provide important tools to increase the uptake of affordable health insurance coverage and to close disparities in coverage rates.

**Appendix Table 1. Medicaid/CHIP Enrollment, By State (February 2020 and April 2021)**

State	Medicaid/CHIP Enrollment, February 2020	Medicaid/CHIP Enrollment, April 2021	Percent Change (%)
Alabama	923,320	1,029,087	11%
Alaska	222,941	246,179	10%
Arizona	1,705,789	2,027,065	19%
Arkansas	802,939	913,485	14%
California	11,590,601	12,752,776	10%
Colorado	1,277,583	1,548,145	21%
Connecticut	844,967	949,551	12%
Delaware	229,794	265,098	15%
District of Columbia	241,674	266,742	10%
Florida	3,600,457	4,249,167	18%
Georgia	1,833,759	2,143,845	17%
Hawaii	325,667	404,443	24%
Idaho	319,534	393,355	23%
Illinois	2,829,625	3,311,978	17%
Indiana	1,503,094	1,835,732	22%
Iowa	677,141	771,043	14%
Kansas	378,292	441,628	17%
Kentucky	1,288,129	1,574,342	22%
Louisiana	1,500,359	1,738,987	16%
Maine	267,482	318,004	19%
Maryland	1,330,660	1,501,484	13%
Massachusetts	1,530,761	1,775,275	16%
Michigan	2,330,401	2,717,834	17%
Minnesota	1,044,409	1,206,134	15%
Mississippi	615,262	697,177	13%
Missouri	855,282	1,054,820	23%
Montana	252,740	286,539	13%
Nebraska	248,633	320,223	29%
Nevada	625,358	786,142	26%
New Hampshire	181,726	219,586	21%
New Jersey	1,701,569	1,961,275	15%
New Mexico	744,994	835,888	12%
New York	5,987,770	6,826,445	14%
North Carolina	1,770,394	2,057,302	16%
North Dakota	89,991	111,087	23%
Ohio	2,596,917	3,034,790	17%
Oklahoma	716,566	883,341	23%
Oregon	1,002,190	1,189,859	19%
Pennsylvania	2,934,949	3,331,427	14%
Rhode Island	289,944	333,993	15%
South Carolina	1,036,982	1,152,590	11%
South Dakota	109,585	126,943	16%
Tennessee	1,447,540	1,610,191	11%
Texas	4,198,897	4,960,375	18%
Utah	313,899	410,748	31%
Vermont	151,167	176,555	17%
Virginia	1,426,912	1,694,244	19%
Washington	1,723,451	1,953,388	13%
West Virginia	506,857	578,463	14%
Wisconsin	1,050,981	1,259,843	20%
Wyoming	56,082	67,098	20%
<b>Total</b>	<b>71,236,016</b>	<b>82,301,711</b>	<b>16%</b>

Source: Centers for Medicare and Medicaid Services (CMS) Monthly Applications, Eligibility Determinations, and Enrollment Reports. Last Updated September 15, 2021

## REFERENCES

1. Katherine Keisler-Starkey and Lisa N. Bunch U.S. Census Bureau Current Population Reports, P60-271, Health Insurance Coverage in the United States: 2019, U.S. Government Publishing Office, Washington, DC, 2020. Cohen RA, Cha AE, Martinez ME, Terlizzi EP. Health insurance coverage: Early release of estimates from the National Health Interview Survey, 2019. National Center for Health Statistics. September 2020. Available from: <https://www.cdc.gov/nchs/nhis/healthinsurancecoverage.htm>.
2. Queen S, Mintz R, Cowling K. Impact of the COVID-19 Pandemic on Major HHS Data Systems (Issue Paper). Washington, DC: Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. August 30, 2021
3. McIntyre A, Brault MW, Sommers BD. Measuring Coverage Rates in a Pandemic: Policy and Research Challenges. JAMA Health Forum. 2020;1(10):e201278. doi:10.1001/jamahealthforum.2020.1278
4. State and Local Estimates of the Uninsured Population in the U.S. Using the Census Bureau's 2019 American Community Survey. Washington, DC: Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. March 12, 2021  
Bosworth A, Finegold K, and Ruhter J. The Remaining Uninsured: Geographic and Demographic Variation (Issue Brief No. HP-2021- 06). Washington, DC: Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. March 23, 2021.  
Finegold K, Conmy A, Chu RC, Bosworth A, and Sommers, BD. Trends in the U.S. Uninsured Population, 2010-2020. (Issue Brief No. HP-2021-02). Washington, DC: Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. February 11, 2021.
5. Cook, MC Daily, DM American Community Survey Webinar: Impacts from the COVID-19 Pandemic. July 29, 2021. <https://www.census.gov/content/dam/Census/newsroom/press-kits/2021/acs-1-year/20210729-presentation-changes-acs-1-year.pdf>
6. Census Bureau Announces Changes for 2020 American Community Survey 1-Year Estimates. July 29, 2021 <https://www.census.gov/newsroom/press-releases/2021/changes-2020-acs-1-year.html>
7. American Community Survey 2020 Data Release Schedule. <https://www.census.gov/programs-surveys/acs/news/data-releases/2020/release-schedule.html>
8. Rothbaum, Jonathan, and Adam Bee. (2020). Coronavirus Infects Surveys, Too: Nonresponse Bias During the Pandemic in the CPS ASEC. Census Bureau, SEHSD Working Paper 2020-10.
9. Edward R. Berchick ER, Mykyta L, Stern SM. The Influence of COVID-19-Related Data Collection Changes on Measuring Health Insurance Coverage in the 2020 CPS ASEC. SEHSD Working Paper 2020-13. US Census Bureau. <https://www.census.gov/content/dam/Census/library/working-papers/2020/demo/sehspd-wp2020-13.pdf>
10. IBID.
11. How Did the Pandemic Affect Survey Response: Using Administrative Data to Evaluate Nonresponse in the 2021 Current Population Survey Annual Social and Economic Supplement. <https://www.census.gov/newsroom/blogs/research-matters/2021/09/pandemic-affect-survey-response.html>
12. Dahlhamer JM, Bramlett MD, Maitland A, Blumberg SJ. Preliminary evaluation of nonresponse bias due to the COVID-19 pandemic on National Health Interview Survey estimates, April/June 2020. Hyattsville, MD: National Center for Health Statistics. February 2021. Available from: <https://www.cdc.gov/nchs/data/nhis/earlyrelease/nonresponse202102-508>
13. Cohen RA, Terlizzi EP, Cha AE, Martinez ME. Health insurance coverage: Early release of estimates from the National Health Interview Survey, 2020. National Center for Health Statistics. August 2021 <https://www.cdc.gov/nchs/data/nhis/earlyrelease/insur202108-508.pdf>
14. MEPS-IC Response Rates. [https://meps.ahrq.gov/survey\\_comp/ic\\_response\\_rate.jsp](https://meps.ahrq.gov/survey_comp/ic_response_rate.jsp)
15. User Note for 2020 MEPS-IC Private-Sector Tables. [https://meps.ahrq.gov/mepsweb/about\\_meps/releaseschedule.jsp](https://meps.ahrq.gov/mepsweb/about_meps/releaseschedule.jsp)
16. Source of the Data and Accuracy of the Estimates for the Household Pulse Survey – Phase 3.1 [https://www2.census.gov/programs-surveys/demo/technical-documentation/hhp/Phase3-1\\_Source\\_and\\_Accuracy\\_Week\\_33.pdf](https://www2.census.gov/programs-surveys/demo/technical-documentation/hhp/Phase3-1_Source_and_Accuracy_Week_33.pdf)

17. Katherine Keisler-Starkey and Lisa N. Bunch, U.S. Census Bureau Current Population Reports, P60-274, Health Insurance Coverage in the United States: 2020, U.S. Government Publishing Office, Washington, DC, September 2021.
18. Noon JM, Fernandez LE, Porter SR. Response error and the Medicaid undercount in the current population survey. *Health Serv Res.* 2019 Feb;54(1):34-43. doi: 10.1111/1475-6773.13058. Epub 2018 Oct 1. PMID: 30270431; PMCID: PMC6338296.
19. Bundorf MK, Gupta S, Kim C. Trends in US Health Insurance Coverage During the COVID-19 Pandemic. *JAMA Health Forum.* 2021;2(9):e212487. doi:10.1001/jamahealthforum.2021.2487
20. Sara R. Collins, Munira Z. Gunja, and Gabriella N. Aboulafia, U.S. Health Insurance Coverage in 2020: A Looming Crisis in Affordability — Findings from the Commonwealth Fund Biennial Health Insurance Survey, 2020 (Commonwealth Fund, Aug. 2020). <https://doi.org/10.26099/6aj3-n655>
21. HRMS Frequently Asked Questions <http://hrms.urban.org/faq.html>
22. Karpman M and Zuckerman S. The Uninsurance Rate Held Steady during the Pandemic as Public Coverage Increased. August 2021. [https://www.urban.org/sites/default/files/publication/104691/uninsurance-rate-held-steady-during-the-pandemic-as-public-coverage-increased\\_final-v3.pdf](https://www.urban.org/sites/default/files/publication/104691/uninsurance-rate-held-steady-during-the-pandemic-as-public-coverage-increased_final-v3.pdf)
23. Centers for Medicaid and Medicare Services. April 2021 Medicaid & CHIP Enrollment Data Highlights. Accessed at: <https://www.medicaid.gov/medicaid/program-information/medicaid-and-chip-enrollment-data/report-highlights/index.html>
24. Rudowitz, R., Corallo, B., & Artiga, S. (2020). Analysis of Recent National Trends in Medicaid and CHIP Enrollment. Menlo Park, CA: *Henry J. Kaiser Family Foundation*. Accessed at: <https://www.kff.org/coronavirus-covid-19/issue-brief/analysis-of-recent-national-trends-in-medicaid-and-chip-enrollment/>
25. Status of State Medicaid Expansion Decisions: Interactive Map. (September 8, 2021). Menlo Park, CA: *Henry J. Kaiser Family Foundation*. Accessed at: <https://www.kff.org/medicaid/issue-brief/status-of-state-medicaid-expansion-decisions-interactive-map/>
26. Aron-Dine, A., Hayes, K., & Broaddus, M. (2020). With need rising, Medicaid is at risk for cuts. Center on Budget and Policy Priorities. Accessed at: <https://www.cbpp.org/research/health/with-need-rising-medicaid-is-at-risk-for-cuts>
27. Congressional Research Service. (November 12, 2020). Impact of the Recession on Medicaid. Accessed at: <https://crsreports.congress.gov/product/pdf/IF/IF11686>
28. Garfield, R., Claxton, G., Damico, A., & Levitt, L. (2020). Eligibility for ACA health coverage following job loss. Kaiser Family Foundation. <https://www.kff.org/coronavirus-covid-19/issue-brief/eligibility-for-aca-health-coverage-following-job-loss/>
29. Banthin J., Simpson, M., Buettgens, M., Blumberg L.J., and Wang, R. (July 13, 2020). Changes in Health Insurance Coverage Due to the COVID-19 Recession: Preliminary Estimates Using Microsimulation. Washington DC: Urban Institute. <https://www.rwjf.org/en/library/research/2020/07/changes-in-health-insurance-coverage-due-to-the-covid-19-recession--preliminary-estimates-using-microsimulation.html>
30. Garrett, A. B., & Gangopadhyaya, A. (2020). How the COVID-19 recession could affect health insurance coverage. Available at SSRN 3598558. Accessed at: [https://www.urban.org/sites/default/files/publication/102157/how-the-covid-19-recession-could-affect-health-insurance-coverage\\_0.pdf](https://www.urban.org/sites/default/files/publication/102157/how-the-covid-19-recession-could-affect-health-insurance-coverage_0.pdf)
31. Health Management Associates. (May 2020). COVID-19 Impact on Medicaid, Marketplace, and the Uninsured. <https://www.healthmanagement.com/wp-content/uploads/HMA-Updated-Estimates-of-COVID-Impact-on-Health-Insurance-Coverage-May-2020.pdf>
32. Weissfeld, J., Fishman, E., & Taylor-Penn, L. (May 19, 2020). Early state trends signal massive surge in Medicaid enrollment related to COVID-19. *Families USA*. Accessed at: <https://familiesusa.org/resources/early-state-trends-signal-massive-surge-in-medicaid-enrollment-related-to-covid-19/>
33. Centers for Medicaid and Medicare Services. August 2020 Medicaid & CHIP Enrollment Data Highlights. Accessed at: <https://www.cms.gov/newsroom/press-releases/cms-releases-august-medicaid-and-chip-enrollment-trends-snapshot-showing-continued-enrollment-growth>
34. Centers for Medicaid and Medicare Services. (June 21, 2021). New Medicaid and CHIP Enrollment Snapshot Shows Almost 10 million Americans Enrolled in Coverage During the COVID-19 Public Health Emergency. Accessed at: <https://www.cms.gov/newsroom/press-releases/new-medicaid-and-chip-enrollment-snapshot-shows-almost-10-million-americans-enrolled-coverage-during>

35. Khorrani P, Sommers BD. Changes in US Medicaid Enrollment During the COVID-19 Pandemic. *JAMA Netw Open*. 2021;4(5):e219463. doi:10.1001/jamanetworkopen.2021.9463
36. Finegold K, Conmy A, Chu RC, Bosworth A, and Sommers, BD. Trends in the U.S. Uninsured Population, 2010-2020. (Issue Brief No. HP-2021-02). Washington, DC: Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. February 11, 2021.
37. Effectuated Enrollment: Early 2021 Snapshot and Full Year 2020 Average. Centers for Medicare & Medicaid, June 5, 2021. Accessed at: <https://www.cms.gov/document/Early-2021-2020-Effectuated-Enrollment-Report.pdf>.
38. 2021 Marketplace Open Enrollment Report. Centers for Medicare & Medicaid Services, 2021. Accessed at: <https://www.cms.gov/files/document/health-insurance-exchanges-2021-open-enrollment-report-final.pdf>.
39. Branham DK, Conmy AB, DeLeire T, Musen J, Xiao X, Chu RC, Peters C, and Sommers BD. Access to Marketplace Plans with Low Premiums on the Federal Platform, Part III: Availability Among Current HealthCare.gov Enrollees Under the American Rescue Plan (Issue Brief No. HP-2021-09). Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. April 13, 2021. Accessed at: <https://aspe.hhs.gov/reports/access-marketplace-plans-low-premiums-current-enrollees-american-rescue-plan>.
40. Chu, R.C., Branham, D.K., Finegold, K., Conmy, A.B., Peters, C., De Lew, N., and Sommers, B.D. The American Rescue Plan and the Unemployed: Making Health Coverage More Affordable After Job Loss (Issue Brief No. HP-2021-15). Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. July 2021. Accessed at: <https://aspe.hhs.gov/reports/arp-unemployed-ib>. Enhanced Marketplace subsidies for recipients of unemployment compensation are available through December 2021.
41. 2021 Final Marketplace Special Enrollment Period Report. Centers for Medicare & Medicaid Services. Accessed at: <https://www.hhs.gov/sites/default/files/2021-sep-final-enrollment-report.pdf>.
42. Biden-Harris Administration Announces Record-Breaking 12.2 Million People Are Enrolled in Coverage Through the Health Care Marketplaces. Centers for Medicare & Medicaid Services, September 15, 2021. Accessed at: <https://www.cms.gov/newsroom/press-releases/biden-harris-administration-announces-record-breaking-122-million-people-are-enrolled-coverage>.
43. National Health Expenditures (5.0 million in 2019), Centers for Medicare & Medicaid Services. Accessed at: <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical>.
44. Current Trends in Individual Segment Enrollment. Mark Farrah Associates, August 20, 2019. Accessed at: <https://www.markfarrah.com/mfa-briefs/current-trends-in-individual-segment-enrollment/>.
45. Fiedler, Matthew. Enrollment in Nongroup Health Insurance by Income Group. USC-Brookings Schaeffer Initiative for Health Policy, March 2021. Accessed at: <https://www.brookings.edu/research/enrollment-in-nongroup-health-insurance-by-income-group/>.
46. Year-Over-Year Health Insurance Enrollment Trends Amidst a Pandemic-Era. Mark Farrah Associates, April 30, 2021. Accessed at: <https://www.markfarrah.com/mfa-briefs/year-over-year-health-insurance-enrollment-trends-amidst-a-pandemic-era/>.
47. Interstudy Data on Health Insurers for 2019-2021.
48. Miller, G.E., and Keenan, P. Trends in Health Insurance at Private Employers, 2008–2020. Statistical Brief #536. September 2021. Agency for Healthcare Research and Quality, Rockville, MD. [https://www.meps.ahrq.gov/mepsweb/data\\_files/publications/st536/stat536.shtml](https://www.meps.ahrq.gov/mepsweb/data_files/publications/st536/stat536.shtml)
49. Collins, S.R. et al. An Early Look at the Potential Implications of the COVID-19 Pandemic for Health Insurance Coverage. Commonwealth Fund, June 23, 2020. Accessed at: <https://www.commonwealthfund.org/publications/issue-briefs/2020/jun/implications-covid-19-pandemic-health-insurance-survey>.
50. Bureau of Labor Statistics. 2020 Results of the Business Response Survey. Accessed at: <https://www.bls.gov/brs/2020-results.htm>.

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