

# Health Disparities in Employer-Sponsored Insurance

July 2022

# Executive Summary

Morgan Health commissioned NORC at the University of Chicago (NORC) to produce a first-of-its-kind data analysis leveraging three nationally-representative, public surveys and national vital statistics records to produce a snapshot of health outcomes and disparities among adults with employer-sponsored insurance (ESI). The analysis examines engagement in preventive health behaviors, health outcomes associated with chronic conditions, maternal health, substance use and behavioral health conditions, access to care and food insecurity.

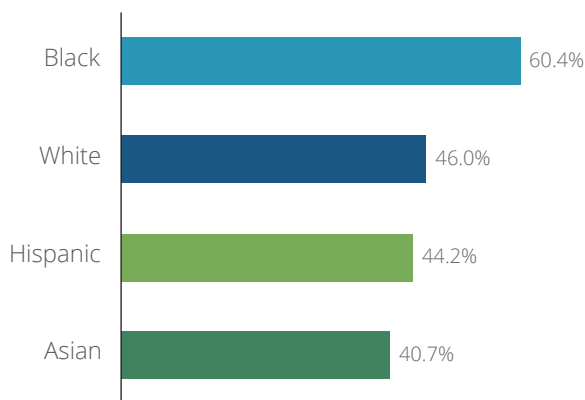
The Morgan Health-NORC analysis reveals important insights about the state of health care and outcomes in the employer market — the largest source of health insurance coverage in the U.S. — with a comprehensive look at disparities prior to the onset of the COVID-19 pandemic. This work will support future analyses focused on accessibility of care, health disparities, health outcomes and social needs in the ESI market during and after the pandemic.

The analysis found large health disparities across chronic conditions, maternal health and behavioral health among enrollees with employer-sponsored coverage. Some of the most significant differences appear to be statistically associated with race. Furthermore, the analysis uncovered significant substance use issues and disparities across sexual orientation subgroups. Lastly, the analysis revealed challenges related to care accessibility, which was primarily associated with income differences.

Below are some key findings from the Morgan Health-NORC analysis:

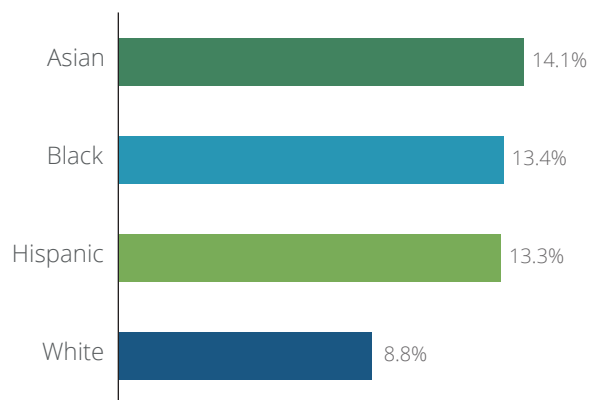
- **The burden of chronic disease varied significantly across race/ethnic groups.**
  - 60.4 percent of Black enrollees had high blood pressure, as compared to 40.7 percent of Asian enrollees, 44.2 percent of Hispanic enrollees and 46.0 percent of white enrollees (Figure A).
  - Black (13.4 percent), Hispanic (13.3 percent) and Asian (14.1 percent) enrollees were more likely to have diabetes than white enrollees [(8.8 percent) (Figure B)].

**FIGURE A** Unadjusted prevalence of high blood pressure among enrollees, by race and ethnicity



Source: 2017–March 2020 NHANES (CDC/NCHS)

**FIGURE B** Unadjusted prevalence of diabetes among enrollees, by race and ethnicity



Source: 2017–March 2020 NHANES (CDC/NCHS)

- **Behavioral health and substance use issues were prevalent among all enrollees.**
  - The overall rates of serious psychological distress, anxiety and depression among enrollees were 9.5 percent, 13.3 percent and 14.1 percent, respectively.
  - The analysis found 19.8 percent of enrollees use tobacco, 30.1 percent report heavy alcohol use and 18.8 percent use illicit drugs.
- **There were stark differences in severity of behavioral health and substance use issues and related outcomes for white and Lesbian, Gay or Bisexual ESI enrollees.**
  - Lesbian, Gay or Bisexual enrollees were nearly three times more likely to report serious psychological distress than straight enrollees (23.4 percent v. 8.8 percent). White enrollees were more likely to report heavy alcohol use (31.7 percent) and illicit drug use (20.6 percent) compared to Black, Asian and Hispanic enrollees.
- **The analysis found widespread variation in Cesarean section (C-section) delivery rates among races within the ESI market, reinforcing persistent maternal health gaps across the health system.**
  - Of enrollees with a low-risk pregnancy, 14.9 percent delivered by C-Section; 20.1 percent, 17.7 percent and 17.0 percent of low-risk deliveries among Black, Asian and Hispanic enrollees, respectively, were performed via C-section, compared to a rate of 13.6 percent of white enrollees.
- **For enrollees with low-to-moderate incomes, the analysis revealed high rates of difficulty paying medical bills and emergency department utilization, which signals access to care could be a challenge for this subset of the population.**
  - 21.5 percent of enrollees earning less than \$50,000 annually had difficulty paying medical bills compared to 11.9 percent of enrollees across all income levels.
  - After adjusting for age and sex, enrollees in the lowest income bracket in the analysis were 7.1 percent more likely than enrollees in the highest income bracket to visit an emergency department.
- **Even with employer coverage and job-based income, food insecurity is prevalent within the employer-sponsored coverage population.**
  - 7.7 percent of enrollees were food insecure. These unmet social needs can further exacerbate negative outcomes and widen health gaps.

# Introduction

---

Employer-sponsored health insurance (ESI) is the largest source of health insurance coverage in the U.S., serving almost 155 million Americans<sup>1</sup> or approximately 50.0 percent of the entire U.S. population.<sup>2</sup>

Despite the breadth of the ESI market, the health status and health outcomes of enrollees are not well understood. To date, most ESI research has focused on the economic value of employer-provided health insurance, the cost of medical care and insurance (including out-of-pocket costs), utilization of health care services and access to care. Furthermore, research examining health disparities and inequities in ESI is limited. Historical data gaps related to race, ethnicity and income tied to ESI claims limit what health disparities researchers can currently study in claims-based analyses. Many survey-based or qualitative studies include data on income, race and sexual orientation but lack health-related data to enable a comparison of health behaviors or health outcomes across race and income levels.

Morgan Health is committed to improving health outcomes, reducing disparities and helping to make care more affordable for those with ESI. To make improvements in employer-sponsored health care, we must first understand where disparities exist within the ESI population. As part of this commitment, Morgan Health sought to establish a snapshot of health status for those with ESI, the nation's largest health insurance segment. To achieve this, Morgan Health commissioned NORC at the University of Chicago (NORC) to produce a first-of-its-kind data analysis leveraging three nationally-representative, public surveys and national vital statistics records to fill this crucial knowledge gap.

The analysis examines engagement in preventive health behaviors, health outcomes associated with chronic conditions, maternal health, substance use and behavioral health conditions and access to care and food insecurity. The analysis includes descriptive statistics, along with age, race/ethnicity and income adjusted differences between population subgroups. The input data for this body of work are the latest available and from pre-pandemic years; therefore, the data snapshot reflects health outcomes and disparities among ESI enrollees prior to the onset of the COVID-19 pandemic. This work will support future analyses focused on affordability, health disparities, health outcomes and social needs in the ESI market during and after the pandemic.

## Key Findings:

The analysis finds large health disparities among enrollees in employer-sponsored coverage related to chronic conditions, maternal health, behavioral health, substance use and access to care. Some disparities are associated with income differences, while others vary by race and sexual orientation even when controlling for other factors.

1. **The burden of chronic disease varied significantly across races and ethnicities, and the data also revealed underdiagnosis of key conditions for certain patient populations.**
  - a. *Blood pressure*: 60.4 percent of Black enrollees had high blood pressure, as compared to 40.7 percent of Asian enrollees, 44.2 percent of Hispanic enrollees and 46.0 percent of white enrollees. After adjusting for age and sex, Black enrollees were 16.7 percentage points more likely to have high blood pressure than white enrollees. Furthermore, Black enrollees were 15.6 percentage points more likely than white enrollees to have uncontrolled high blood pressure.
  - b. *Diabetes*: Black (13.4 percent), Hispanic (13.3 percent) and Asian (14.1 percent) enrollees were more likely to have diabetes than white enrollees (8.8 percent). On an age and sex adjusted basis, the pattern remained. Compared to white enrollees, Asian, Hispanic and Black enrollees were more likely to have diabetes by 6.9 percentage points, 5.6 percentage points and 5.3 percentage points, respectively. The rate of undiagnosed diabetes was approximately 3 percentage points higher for Asian, Hispanic and Black enrollees than white enrollees.
  - c. *Obesity*: 42.8 percent of enrollees were classified as obese. Black and Hispanic enrollees were more likely to be obese than white enrollees (56.2 percent and 46.4 percent, respectively, as compared to 43.0 percent for whites), while Asian enrollees (16.2 percent) were roughly one-third as likely as white enrollees to be obese. After adjusting for age and sex, Black enrollees were more likely to be obese than white enrollees by 13.6 percentage points, while Asian enrollees were less likely to be obese than white employees by 26.2 percentage points.

2. **Widespread variation in Cesarean section (C-section) delivery rates among racial and ethnic minority groups reinforce persistent maternal health gaps within the ESI market.** Studies have shown that C-section delivery can significantly reduce maternal morbidity and mortality in high-risk deliveries. However, when performed in low-risk situations, C-sections can increase the risk of infections and blood clots and may contribute to unnecessary postpartum complications, including death. One mechanism to improve maternal health is to reduce the C-section delivery rate among low-risk pregnancies.
  - a. The analysis shows that, of low-risk deliveries, 20.1 percent, 17.7 percent and 17.0 percent of Black, Asian and Hispanic enrollees delivered by C-section, compared to a rate of 13.6 percent among white enrollees.
  - b. After adjusting for differences in age, Black, Asian and Hispanic enrollees with low-risk pregnancies were more likely to undergo a C-section than their white counterparts by 6.5, 3.9 and 3.4 percentage points, respectively.
3. **Behavioral health and substance use issues were prevalent among all enrollees, however, there were stark differences in severity of these issues and related outcomes for white and Lesbian, Gay or Bisexual ESI enrollees.**
  - a. White enrollees (9.9 percent) were more likely than Black (8.4 percent), Hispanic (9.1 percent) and Asian (6.1 percent) enrollees to experience serious psychological distress. White enrollees were also more likely to experience anxiety (15.8 percent) or depression (16.7 percent) than Black (7.1 and 8.7 percent), Hispanic (9.0 and 8.9 percent) and Asian enrollees (3.8 and 4.6 percent).
  - b. The percent of Lesbian, Gay or Bisexual enrollees who reported serious psychological distress was 12.1 percentage points higher, the rate of anxiety was 16.6 percentage points higher and the rate of depression was 18.4 percentage points higher than straight enrollees after adjusting for age and sex.
  - c. After adjusting for age and sex, white enrollees were 4.8 percentage points more likely to visit a mental health provider than Black enrollees, 5.0 percentage points more likely than Hispanic enrollees and 5.0 percentage points more likely than Asian enrollees.
  - d. 19.8 percent of enrollees used tobacco products (inclusive of smoking, vaping, chewing tobacco), 30.1 percent reported heavy alcohol use,<sup>3</sup> and 18.8 percent used illicit drugs, such as marijuana,<sup>4</sup> cocaine, crack, heroin, misuse of pain relievers, stimulants and tranquilizers. Heavy alcohol use was highest among Hispanic enrollees while illicit drug use was highest among white enrollees. Lesbian, Gay or Bisexual enrollees were significantly more likely to heavily use alcohol and illicit drugs than straight enrollees. Hispanic and white enrollees reported higher levels of using heavy alcohol (33.2 and 31.7 percent, respectively) than Black (27.1 percent) and Asian enrollees (14.9 percent). White enrollees were more likely to use illicit drugs (20.6 percent) than Black (16.4 percent), Hispanic (16.6 percent) and Asian enrollees (8.9 percent).
4. **Despite perceptions around the robustness of coverage within ESI, enrollees experience significant barriers to accessing care, particularly for enrollees of racial/ethnic minority backgrounds and those with low or modest incomes.**
  - a. 6.9 percent of enrollees reported missing medical care due to cost, 9.8 percent reported missing prescriptions due to cost and 11.9 percent reported difficulty paying medical bills. These numbers vary widely by income.
  - b. Households earning under \$50,000 were approximately six times more likely to miss medical care and miss prescriptions due to cost than households earning more than \$150,000. Moreover, families in the lowest income group (under \$50,000) were nearly seven times more likely than those in the highest income group (\$150,000 or more) to report difficulty in paying bills. Differences existed between moderate household income groups and the highest income group, but they were not as large; however, they remained statistically significant.
  - c. While nearly all enrollees have a usual source of care, the analysis shows differences in emergency department (ED) utilization — an additional proxy measure for care accessibility. The overall percentage of enrollees who had at least one ED visit in the past year was 16.0, and this varied significantly by both race and by income.

- d. After adjusting for age and sex, Black enrollees were 4.9 percentage points more likely than white enrollees to have visited an ED; in contrast, Asian enrollees were 4.5 percentage points less likely than white enrollees to have visited an ED.
  - e. After adjusting for age and sex, enrollees in the lowest income bracket (under \$50,000) were 7.1 percentage points more likely than enrollees in the highest income bracket (\$150,000 or more) to have visited an ED.
5. **Even with employer-sponsored coverage and job-based income, some enrollees have unmet social needs that can further exacerbate gaps in health outcomes.** Food insecurity, a condition in which households lack access to adequate food because of limited money or other resources, has been associated with negative health outcomes, including increased prevalence of mental health concerns, diabetes, hypertension and oral health problems.<sup>5</sup>
- a. 7.7 percent of enrollees were food insecure.
  - b. After controlling for age and sex, Black and Hispanic enrollees were more likely than white enrollees to be food insecure (by 9.8 and 6.0 percentage points, respectively).

## Data Sources

The study analyzed four sources: three nationally representative public surveys — the 2019 National Health Interview Survey (NHIS), the 2017-March 2020 National Health and Nutrition Examination Survey (NHANES) and the 2019 National Survey of Drug Use and Health (NSDUH) — and birth certificates recorded in the 2020 natality vital statistics registry. The NHIS explores the health and social factors of the U.S. population. NHANES conducts interviews and physical exams among a representative sample of non-institutionalized Americans. The NSDUH examines alcohol and substance use and respective associations with mental health. In each of the data sources, NORC limited the samples to the adult population ages 25 to 64 years who reported having private health insurance through a job or employer. This methodology yielded sample sizes of 12,372 from NHIS, 3,103 from NHANES and 14,580 from NSDUH. Data from these sources provide nationally representative information with relatively low uncertainty due to the large sample sizes at the national level. Additional methods and supporting documentation are available in the appendix.

The analysis focuses heavily on health disparities in the prevalence of chronic conditions including high blood pressure, diabetes and obesity, in addition to maternal health and behavioral health and substance use. In the sections below, unadjusted findings and adjusted findings are presented in the narrative. Unadjusted findings are reported first and depict the overall prevalence of a measure without controlling for potential confounding variables, such as age and sex. Adjusted differences controlling for age, sex, income and/or race follow unadjusted findings in the narrative. All age and sex adjusted differences, regardless of statistical significance, can be found in the supplemental materials. All visuals and graphics presented throughout the paper reflect unadjusted findings.

# The Burden of Chronic Disease Varies Significantly Across Races and Ethnicities

Chronic conditions and comorbidities are highly prevalent within the U.S. with six-in-10 Americans living with at least one chronic disease, like heart disease, cancer or diabetes.<sup>6</sup> Preventing the onset of, and effectively managing, these costly conditions is necessary to improve health outcomes and contain costs across the U.S. health care system.

The analysis found costly chronic conditions, such as high blood pressure, diabetes and obesity are prevalent in the ESI population, with disparities in diagnosis and disease management across race and ethnicity.

## Condition Definitions

**High Blood Pressure (BP):** Reported taking blood pressure lowering medication or had a systolic BP  $\geq 130$ mmHg or a diastolic BP  $\geq 80$ mmHg during the physical examination.

**Diabetes:** Reported taking blood sugar-controlling medication or had a glycated hemoglobin level of 6.5 percent or greater from the laboratory test.

**Obesity:** Measured to have a Body Mass Index (BMI) of 30 kg/m<sup>2</sup> or greater from the physical examination. Abdominal obesity is a separate measure of obesity defined using WHO criteria for the ratio of waist-to-hip circumference.

**Depression:** Reported that a doctor ever said they have depression or scored 10 or higher on the PHQ-8 depression scale (moderate or severe depression).

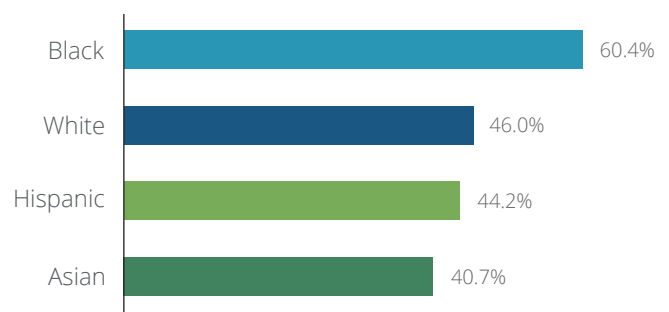
**Anxiety:** Reported that a doctor ever said they have anxiety or scored 10 or higher on the GAD-7 anxiety scale (moderate or severe anxiety).

**Serious Psychological Distress:** A score of 13 or higher on the Kessler-6 distress scale.

## High Blood Pressure

A total of 46.5 percent of enrollees had high blood pressure. Among those with high blood pressure, 56.1 percent (26.1 percent of enrollees) had diagnosed high blood pressure and 43.9 percent (20.4 percent of enrollees) had undiagnosed high blood pressure. Of those with diagnosed high blood pressure, 40.6 percent (10.6 percent of enrollees) had their blood pressure under control. Disease burden varied significantly between white and Black enrollees. Among enrollees, 60.4 percent of Black, 40.7 percent of Asian and 44.2 percent of Hispanic enrollees have high blood pressure, compared to 46.0 percent of white enrollees (Figure 1).

**FIGURE 1** Prevalence of high blood pressure among enrollees, by race and ethnicity



Source: 2017–March 2020 NHANES (CDC/NCHS)

After adjusting for age and sex, Black enrollees were 16.7 percent points more likely to have had high blood pressure than white enrollees. Furthermore, Black enrollees were 15.6 percentage points more likely than white enrollees to have had uncontrolled high blood pressure. These findings highlight disparities in disease burden and disease management.

**TABLE 1** Unadjusted and adjusted differences in high blood pressure and disease management, by race and ethnicity

	High blood pressure, total		Diagnosed, under control		Diagnosed, not under control		Undiagnosed	
	Unadjusted	Age and sex adjusted	Unadjusted	Age and sex adjusted	Unadjusted	Age and sex adjusted	Unadjusted	Age and sex adjusted
Black v. White	14.4*	16.7*	-2.2	-0.9	14.8*	15.6*	1.8	2.0
Asian v. White	-5.3	-1.0	-3.6*	-1.6	0.4	1.9	-2.1	-1.3
Hispanic v. White	-1.8	1.0	-3.9	-2.0	1.8	2.9	0.2	0.1

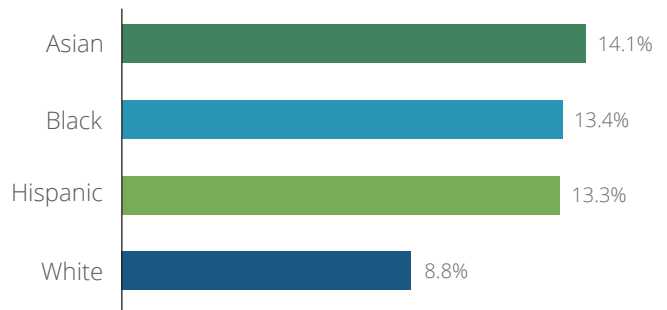
Source: 2017-March 2020 NHANES (CDC/NCHS)

\* Denotes statistical significance ( $p < 0.05$ )

## Diabetes

Diabetes is a chronic disease of concern both to public health and the health care system. More than 34 million people in the U.S. have diabetes and more than 88 million U.S. adults are prediabetic.<sup>7</sup> In 2017, diagnosed diabetes alone cost the U.S. health care system an estimated \$327 billion in direct and indirect costs.<sup>8</sup> According to the analysis, 10.2 percent of enrollees had diabetes — of this total, four of every five (8.2 percent of enrollees) had diagnosed diabetes and one-in-five (2.0 percent of enrollees) had undiagnosed diabetes. Only about one-in-three of those with a diagnosis (2.7 percent of enrollees) had their diabetes under control. Diabetes disproportionately affected racial and ethnic minorities — 13.4 percent of Black, 14.1 percent of Asian and 13.3 percent of Hispanic enrollees had diabetes compared to 8.8 percent of white enrollees (Figure 2).

**FIGURE 2** Prevalence of diabetes among enrollees, by race and ethnicity



Source: 2017-March 2020 NHANES (CDC/NCHS)

After adjusting for age and sex, differences across race/ethnicity groups were still apparent. Compared to white enrollees, Asian, Hispanic and Black enrollees were more likely to have diabetes by 6.9 percentage points, 5.6 percentage points and 5.3 percentage points, respectively. Racial and ethnic minorities were more likely to have had undetected diabetes. The adjusted rate of undiagnosed diabetes was higher for Asian (by 3.4 percentage points), Hispanic (by 3.3 percentage points) and Black (by 3.3 percentage points) enrollees than white enrollees.



**TABLE 2** Unadjusted and adjusted differences in diabetes and disease management, by race and ethnicity

	Diabetes, total		Diagnosed, under control		Diagnosed, not under control		Undiagnosed	
	Unadjusted	Age and sex adjusted	Unadjusted	Age and sex adjusted	Unadjusted	Age and sex adjusted	Unadjusted	Age and sex adjusted
Black v. White	4.6*	5.3*	-1.3*	-1.3	2.7	3.2	3.2*	3.3*
Asian v. White	5.4*	6.9*	1.1	1.4	1.2	2.1	3.0*	3.4*
Hispanic v. White	4.5*	5.6*	0.7	0.8	0.8	1.5	3.0*	3.3*

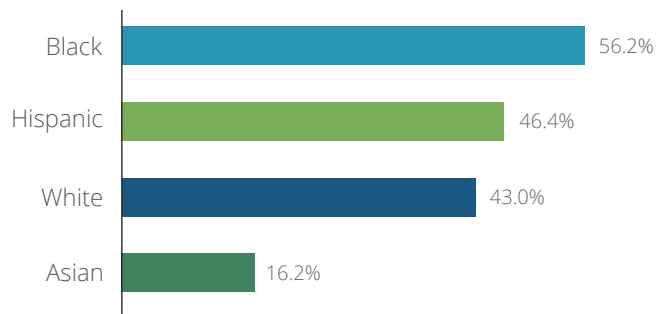
Source: 2017-March 2020 NHANES (CDC/NCHS)  
 \* Denotes statistical significance (p<0.05)

## Obesity

Obesity is a highly prevalent and costly chronic condition in the U.S. Roughly two-in-five Americans are obese, and obesity is a risk factor for other chronic conditions, such as diabetes and heart disease. In 2019, the estimated cost of obesity to the health care system was nearly \$173 billion, and medical costs for adults with obesity were \$1,861 higher than medical costs for people of healthy weight.<sup>9</sup>

When defined using BMI, 42.8 percent of enrollees were classified as obese; 43.0 percent of white, 56.2 of Black, 16.2 percent of Asian and 46.4 percent of Hispanic enrollees were considered obese (Figure 3). After adjusting for age and sex, Black enrollees were more likely to be obese than white enrollees by 13.6 percentage points, while Asian enrollees were less likely to be obese than white employees by 26.2 percentage points (Table 3). One critique of BMI has been that it does not account for different body shapes. Abdominal obesity — defined by the ratio of waist circumference to hip circumference — is another measure for obesity based on how a person’s weight is distributed. The analysis identified 75.6 percent of enrollees have abdominal obesity. After adjusting for age and sex, Hispanic enrollees were more likely than white enrollees to experience abdominal obesity by 5.8 percentage points (Table 3).

**FIGURE 3** Prevalence of obesity as defined by BMI among enrollees, by race and ethnicity



Source: 2017-March 2020 NHANES (CDC/NCHS)

**TABLE 3** Unadjusted and adjusted differences in obesity, by race and ethnicity

	BMI		Abdominal obesity	
	Unadjusted	Age and sex adjusted	Unadjusted	Age and sex adjusted
Black v. White	13.2*	13.6*	-2.2	-0.5
Asian v. White	-26.8*	-26.2*	-5.5*	-1.8
Hispanic v. White	3.4	3.4	4.8	5.8*

Source: 2017-March 2020 NHANES (CDC/NCHS)  
 \* Denotes statistical significance (p<0.05)

# Gaps in Maternal Health Outcomes Underscore Public Health Crisis

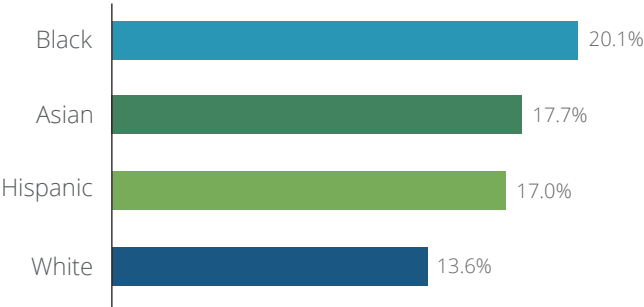
Maternal mortality is a public health crisis in the U.S., and particularly maternal mortality for black mothers. In 2020, the national maternal mortality rate in the U.S. was 23.8 deaths per 100,000 live births<sup>10</sup> — the highest maternal mortality rate of other high-income countries.<sup>11</sup> Black mothers in the U.S. are three times more likely to die from pregnancy-related complications than white mothers.<sup>12</sup> While this data highlighted above is not isolated to the ESI population, nor does this analysis allow for extensive exploration of maternal mortality, it does provide a window to explore disparities that appear in rates of C-sections among enrollees.

## C-section Delivery

Studies have shown that C-section delivery can significantly reduce maternal morbidity and mortality in high-risk deliveries and pregnancies with unexpected complications. However, when performed in low-risk situations, C-sections can increase the risk of infections and blood clots and may contribute to unnecessary postpartum complications including death. Therefore, one mechanism to improve maternal health is to reduce the C-section delivery rate among low-risk pregnancies.<sup>13</sup>

Of enrollees with a low-risk pregnancy, 14.9 percent delivered by C-section. Racial and ethnic minorities were more likely to deliver by C-section. The analysis showed that 20.1 percent, 17.7 percent and 17.0 percent of low-risk deliveries among Black, Asian and Hispanic enrollees, respectively, were performed via C-section, compared to a rate of 13.6 percent for white enrollees (Figure 4). After adjusting for differences in age, Black, Asian and Hispanic enrollees with low-risk pregnancies were 6.5, 3.9 and 3.4 percentage points more likely, respectively, to undergo a C-section than white enrollees (Table 4).

**FIGURE 4** Prevalence of C-section among enrollees with low-risk pregnancies, by race and ethnicity



Source: 2020 Natality Public Use Files (CDC/NCHS/NVSS)

**TABLE 4** Unadjusted and adjusted differences in C-sections in low-risk pregnancies, by race and ethnicity

	Unadjusted	Age adjusted
Black v. White	6.5*	6.5*
Asian v. White	4.0*	3.9*
Hispanic v. White	3.4*	3.4*

Source: 2020 Natality Public Use Files (CDC/NCHS/NVSS)

\* Tests for statistical significance are not appropriate.

# Behavioral Health and Substance Use Issues are Prevalent, with Stark Differences in Severity and Outcomes For White and Lesbian, Gay or Bisexual Enrollees

Behavioral health disorders and substance use issues are increasingly a concern across all payer segments in the U.S., including employer-sponsored coverage. The analysis finds there are considerable behavioral health and substance use issues among enrollees.

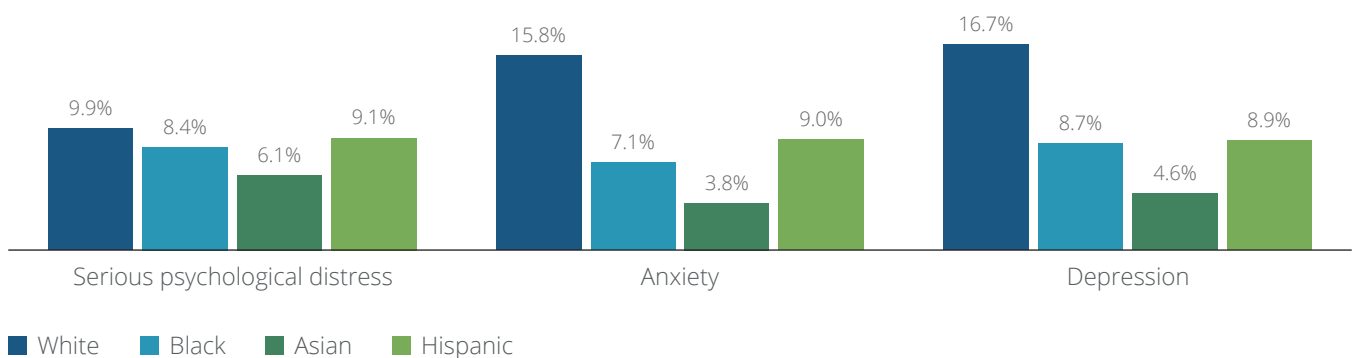
## Behavioral Health

In this analysis, anxiety was determined by self-report or a rating of moderate or severe anxiety based on the 7-question Generalized Anxiety Disorder (GAD-7) scale as administered in the NHIS. Depression was determined by self-report or a rating of moderate or severe depression based on the 8-question Patient Health Questionnaire (PHQ-8) scale, also administered in the NHIS. Severe psychological distress was determined by answers to the Kessler (K-6) Screening questions in the NSDUH. Self-reports of mental health problems in surveys may also be subject to social-desirability bias and may differ from clinical assessments.

The overall rates of serious psychological distress, anxiety and depression within ESI were 9.5 percent, 13.3 percent and 14.1 percent, respectively. Higher rates of serious psychological distress, anxiety and depression were reported by whites (as compared to other race/ethnicity groups), and by Lesbian, Gay or Bisexual people as compared to straight people.

White enrollees experienced the greatest rate of serious psychological distress (9.9 percent) compared to Black (8.4 percent), Asian (6.1 percent) and Hispanic (9.1 percent) enrollees (Figure 5). After adjusting for age and sex, white enrollees were more likely than Black, Hispanic and Asian enrollees to experience serious psychological distress, by 2.0 percentage points, 1.8 percentage points and 5.2 percentage points, respectively. Additionally, white enrollees were more likely than racial minorities to visit a mental health provider. Specifically, after adjusting for age and sex, Black enrollees were 5.0 percentage points less likely, Asian enrollees were 6.4 percentage points less likely and Hispanic enrollees were 5.0 percentage points less likely than white enrollees to visit a mental health provider (Table 5). Higher utilization of mental health care may explain the higher prevalence of diagnosed serious psychological distress among white enrollees.

**FIGURE 5** Prevalence of select behavioral health diagnoses



Sources: 2019 NHIS (CDC/NCHS), 2019 NSDUH (SAMHSA)

**TABLE 5** Unadjusted and adjusted differences in behavioral health, by race and ethnicity

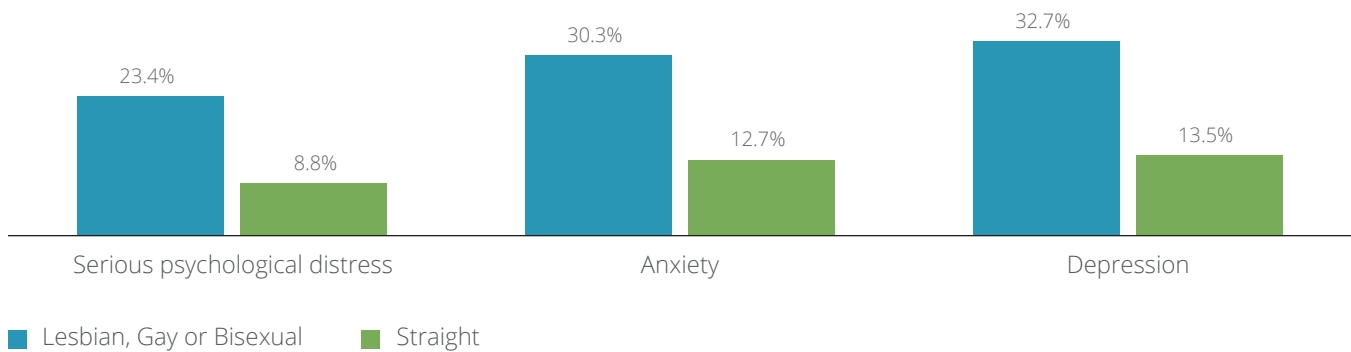
	Serious psychological distress		Anxiety		Depression	
	Unadjusted	Age and sex adjusted	Unadjusted	Age and sex adjusted	Unadjusted	Age and sex adjusted
Black v. White	-1.5	-2.0*	-8.7*	-9.6*	-8.0*	-8.8*
Asian v. White	-3.8*	-5.2*	-12.1*	-13.1*	-12.1*	-12.8*
Hispanic v. White	-0.9	-1.8*	-6.8*	-7.6*	-7.8*	-8.2*

Sources: 2019 NHIS (CDC/NCHS), 2019 NSDUH (SAMHSA)

\* Denotes statistical significance (p<0.05)

Prevalence of serious psychological distress also varied based on sexual orientation. Figure 6 portrays differences in prevalence of serious psychological distress, depression and anxiety between Lesbian, Gay or Bisexual enrollees and straight enrollees. Lesbian, Gay or Bisexual enrollees were nearly three times more likely than straight enrollees to report serious psychological distress (23.4 percent v. 8.8 percent). After adjusting for age and sex, the rate of serious psychological distress among Lesbian, Gay or Bisexual enrollees was 12.1 percentage points higher than straight enrollees. Moreover, Lesbian, Gay or Bisexual enrollees were more likely to experience depression or anxiety (32.7 and 30.3 percent, respectively) compared to straight enrollees (13.5 and 12.7 percent, respectively). The rate of depression was 18.4 percentage points higher, and the rate of anxiety was 16.6 percentage points higher than for Lesbian, Gay or Bisexual enrollees after adjusting for age and sex (Table 6).

**FIGURE 6** Prevalence of behavioral health among enrollees, by sexual orientation



Sources: 2019 NHIS (CDC/NCHS), 2019 NSDUH (SAMHSA)

**TABLE 6** Unadjusted and adjusted differences in behavioral health, by sexual orientation

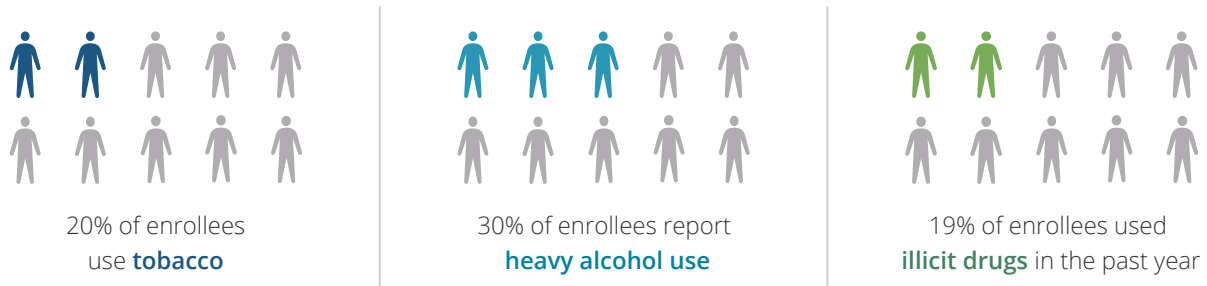
	Serious psychological distress		Anxiety		Depression	
	Unadjusted	Age and sex adjusted	Unadjusted	Age and sex adjusted	Unadjusted	Age and sex adjusted
Lesbian, Gay or Bisexual v. Straight	14.6*	12.1*	17.7*	16.6*	19.2*	18.4*

Sources: 2019 NHIS (CDC/NCHS), 2019 NSDUH (SAMHSA)

\* Denotes statistical significance (p<0.05)

Related to substance use, the analysis found 19.8 percent of enrollees use tobacco (inclusive of smoking, vaping and chewing tobacco), 30.1 percent report heavy alcohol use and 18.8 percent used illicit drugs.<sup>14,15,16</sup> Substance use was self-reported (NHIS/NSDUH) and may be subject to social-desirability bias.

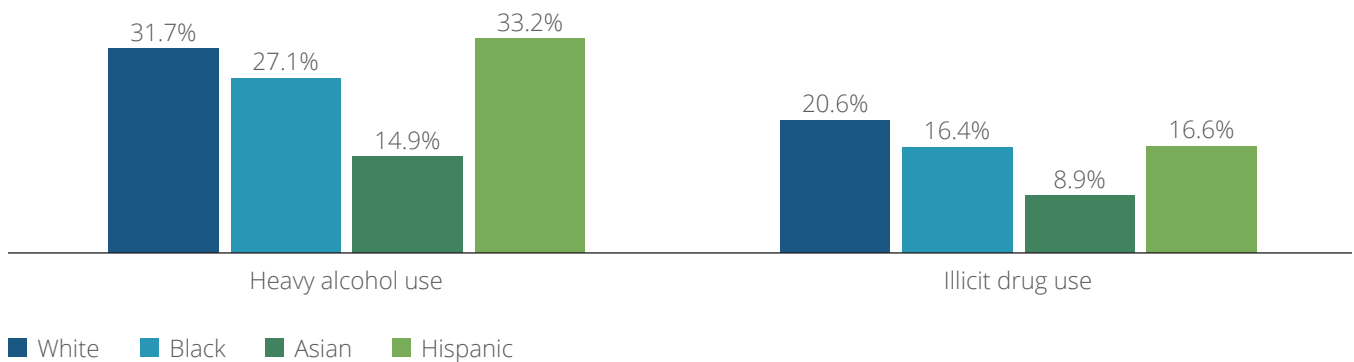
### Overall prevalence of substance use among enrollees



Sources: 2019 NHIS (CDC/NCHS), 2019 NSDUH (SAMHSA)

Substance use varied by race/ethnicity and white enrollees were more likely to use alcohol heavily and illicit drugs compared to Black, Asian and Hispanic enrollees. Heavy alcohol use was the most prevalent among Hispanic enrollees (33.2 percent) compared to white (31.7 percent), Black (27.1 percent) and Hispanic (14.9 percent) enrollees. Among enrollees, 20.6 percent of whites, 16.4 percent of Blacks, 8.9 percent of Asians and 16.6 percent of Hispanics used illicit drugs, such as marijuana, cocaine, crack, heroine, misuse of pain relievers, stimulants and tranquilizers, to name a few. The prevalence of heavy alcohol use and illicit drug use is captured in Figure 7. Adjusting for age and sex, Black and Asian enrollees were less likely than white enrollees to heavily use alcohol, and Black, Asian and Hispanic enrollees were less likely than white enrollees to use illicit drugs (Table 7).

**FIGURE 7** Prevalence of substance use among enrollees, by race and ethnicity



Source: 2019 NSDUH (SAMHSA)

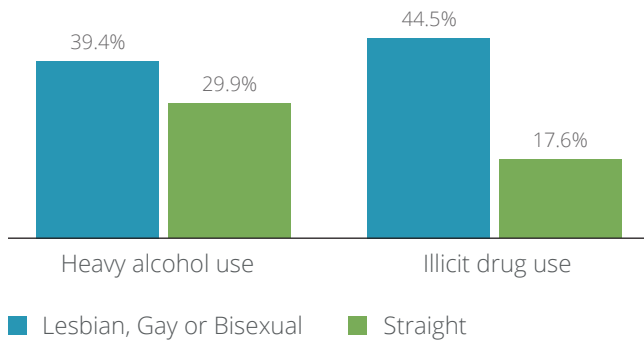
**TABLE 7** Unadjusted and adjusted differences in substance use, by race and ethnicity

	Heavy alcohol use		Illicit drug use	
	Unadjusted	Age and sex adjusted	Unadjusted	Age and sex adjusted
Black v. White	-4.6*	-4.6*	-4.2*	-4.2*
Asian v. White	-16.8*	-18.4*	-11.7*	-13.2*
Hispanic v. White	1.5	-0.3	-4.0*	-5.8*

Source: 2019 NSDUH (SAMHSA)  
\* Denotes statistical significance (p<0.05)

Lesbian, Gay or Bisexual enrollees were more likely to use alcohol heavily and illicit drugs than straight enrollees (Figure 8). When adjusted for age and sex, the percentage of Lesbian, Gay or Bisexual enrollees who reported illicit drug use was 24.0 percentage points higher than that of straight enrollees, and, the percent of Lesbian, Gay or Bisexual enrollees who reported alcohol abuse or dependence was 7.1 percentage points higher than straight enrollees (Table 8).

**FIGURE 8** Prevalence of substance use among enrollees, by sexual orientation



Source: 2019 NSDUH (SAMHSA)

**TABLE 8** Unadjusted and adjusted differences in substance use, by sexual orientation

	Heavy alcohol use		Illicit drug use	
	Unadjusted	Age and sex adjusted	Unadjusted	Age and sex adjusted
Lesbian, Gay or Bisexual v. Straight	9.5*	7.1*	26.9*	24.0*

Source: 2019 NSDUH (SAMHSA)  
\* Denotes statistical significance ( $p < 0.05$ )

The analysis generated findings related to behavioral health and substance use in 2019; other research conducted during the pandemic have indicated worsening of behavioral health and substance use since the onset of the COVID-19 pandemic. In 2020, 30.0 percent of adults in the U.S. reported symptoms of anxiety and/or depressive disorder, up from 11.0 percent prior to the pandemic, and deaths due to drug overdose increased by nearly 30.0 percent from 2019 to 2020.<sup>17</sup>

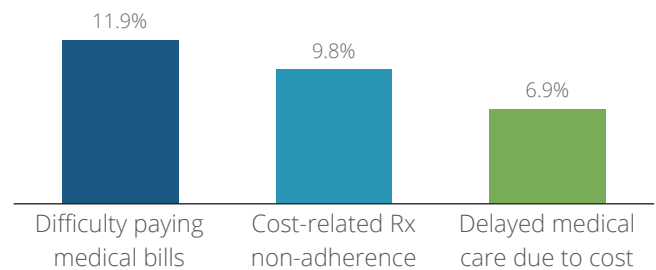
# Barriers to Care and Food Insecurity Among Enrollees Compound Negative Health Outcomes

## Usual Source of Care

The Institute of Medicine defines access to care as the “timely use of personal health services to achieve the best possible health outcomes.”<sup>18</sup> Access to comprehensive, high-quality care is important to promote and maintain better health, prevent and manage disease, and reduce and prevent unnecessary disability and premature death.<sup>19</sup> Recent research shows that commercial insurance enrollees (employer-sponsored and individual market coverage) experience challenges with accessing care and reduced satisfaction with care receive compared to individuals covered by publicly-sponsored insurance programs (Medicare and Medicaid).<sup>20</sup> Enrollees can face high out-of-pocket costs compared to those enrolled in coverage via Medicare or Medicaid, which can make accessing care particularly challenging for lower-income enrollees.

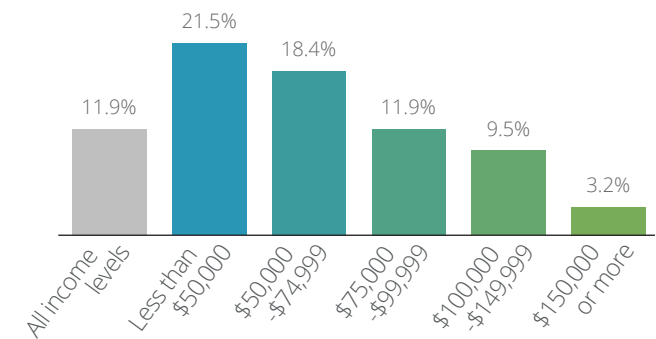
The analysis supports other research that finds financial barriers to care for enrollees, particularly those with low or modest incomes. Many enrollees avoided necessary medical services and prescriptions due to cost. Specifically, 6.9 percent reported missing medical care<sup>21</sup> due to cost, 9.8 percent reported missing prescriptions due to cost, and 11.9 percent reported difficulty paying medical bills (Figure 9). These numbers vary widely by income (Figure 10). While the analysis revealed some differences by race/ethnicity related to access to care, these differences decrease after controlling for income (Table 9).

**FIGURE 9** Prevalence of financial barriers to care



Source: 2019 NHIS (CDC/NCHS)

**FIGURE 10** Prevalence of difficulties paying medical bills, by income



Source: 2019 NHIS (CDC/NCHS)

**TABLE 9** Unadjusted and adjusted differences in financial barriers to care, by income

	Difficulty paying medical bills		Cost-related Rx non-adherence		Delayed medical care due to cost	
	Unadjusted	Age and sex adjusted	Unadjusted	Age and sex adjusted	Unadjusted	Age and sex adjusted
Income Group 1 v. 5	18.3*	18.6*	15.4*	15.4*	10.6*	10.5*
Income Group 2 v. 5	15.2*	15.5*	9.5*	9.6*	8.4*	8.4*
Income Group 3 v. 5	8.6*	9.0*	5.9*	6.1*	4.9*	5.0*
Income Group 4 v. 5	6.2*	6.4*	4.1*	4.2*	3.3*	3.4*

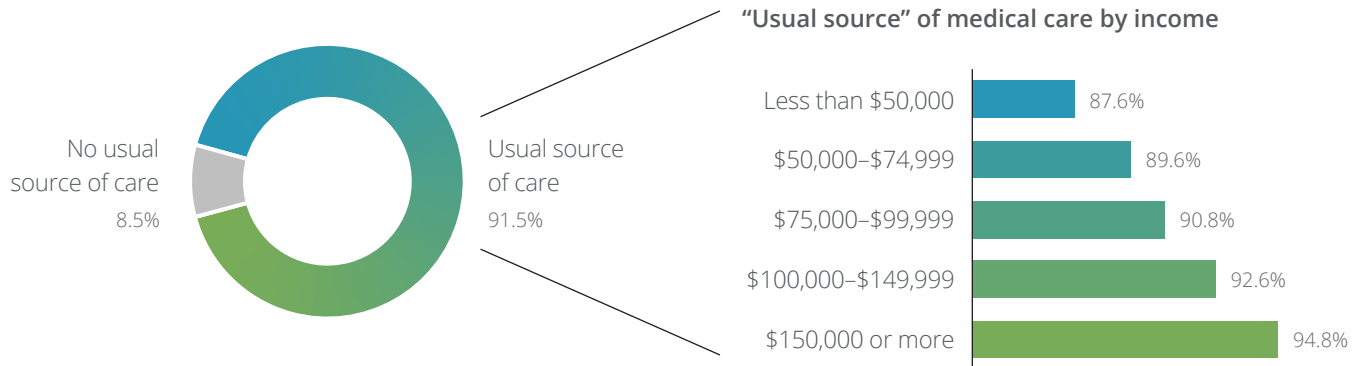
Source: 2019 NHIS (CDC/NCHS)

Family income groups defined as: (1) under \$50,000; (2) \$50,000 to \$74,999; (3) \$75,000 to \$99,999; (4) \$100,000 to \$149,999; (5) \$150,000 or more

\* Denotes statistical significance (p<0.05)

Virtually all enrollees (91.5 percent) reported having a usual source of care; this did not vary significantly by race but did vary significantly by income (Figure 11). The NHIS defines a “usual source” of medical care as a place that a patient usually goes to if they are sick and need health care. The question does not limit a “usual source” of medical care to a particular delivery setting, such as a primary care office. In a follow-up question, the survey probes whether that usual place is a doctor’s office, urgent care/retail clinic, hospital emergency department (ED), Veterans’ Affairs clinic or somewhere else.

**FIGURE 11** Prevalence of enrollees with a “usual source” of medical care, overall and by income



Source: 2019 NHIS (CDC/NCHS)

While nearly all enrollees have a usual source of care, the analysis showed significant differences in emergency department utilization — an additional proxy measure for care accessibility. The overall percentage of ESI enrollees who had at least one ED visit in the past year was 16.0, and this varied significantly by both race/ethnicity and by income. After adjusting for age and sex, Black enrollees were 4.9 percentage points more likely than white enrollees to have visited an ED; in contrast, Asian enrollees were 4.5 percentage points less likely than white enrollees to have visited an ED. Further adjusting for income only slightly attenuated these differences, and differences remained statistically significant. After adjusting for age and sex, enrollees in the lowest income bracket (under \$50,000) were 7.1 percentage points more likely than enrollees in the highest income bracket (\$150,000 or more) to have visited an ED (Table 11). Thus, these findings may reveal inequities in access to care despite comparable rates of a usual source of care among racial groups. Ultimately, these findings merit further study to understanding what is driving this care consumption pattern difference.

**TABLE 10** Unadjusted and adjusted differences between enrollees who had an ED visit in the past year, by race and ethnicity

	Unadjusted	Age and sex adjusted
Black v. White	5.1*	4.9*
Asian v. White	-4.3*	-4.5*
Hispanic v. White	0.6	0.5

Source: 2019 NHIS (CDC/NCHS)  
\* Denotes statistical significance (p<0.05)

**TABLE 11** Unadjusted and adjusted differences between enrollees who had an ED visit in the past year, by income

	Unadjusted	Age and sex adjusted
Income Group 1 v. 5	7.2*	7.1*
Income Group 2 v. 5	5.7*	5.7*
Income Group 3 v. 5	2.8*	2.8*
Income Group 4 v. 5	1.9	2.0

Source: 2019 NHIS (CDC/NCHS)  
Family income groups defined as: (1) under \$50,000; (2) \$50,000 to \$74,999; (3) \$75,000 to \$99,999; (4) \$100,000 to \$149,999; (5) \$150,000 or more  
\* Denotes statistical significance (p<0.05)



## Food Insecurity

This analysis identified food insecurity, a vulnerability often overlooked among those with employer-sponsored coverage, as a key consideration among enrollees. Food security is defined as the lack of consistent physical and economic access to sufficient, safe and nutritious foods for an active and healthy lifestyle.<sup>22</sup> A food secure individual reports no indications of food access problems or limitations while individuals reporting any other problems with access to food are categorized as food insecure.<sup>23</sup>

According to the analysis, 7.7 percent of enrollees were food insecure. However, food insecurity was not equally distributed across racial groups. After controlling for age and sex, Black and Hispanic enrollees were more likely than white enrollees to be food insecure (by 9.8 and 6.0 percentage points, respectively) (Table 12). Further adjusting for income reduced the magnitude of differences between race groups but gaps remained. Additionally, the pandemic has worsened food insecurity due to pandemic-related job losses combined with interruptions in the food supply chain and inflation.<sup>24</sup> Disparities in food security existed prior to the pandemic, and further analysis is necessary to understand the pandemic's effects on pre-existing inequities. Further deliberation is also necessary to better understand the risk factors of food insecurity within the overall ESI population and amongst racial minorities.

**TABLE 12** Unadjusted and adjusted differences in food insecurity, by race and ethnicity

	Unadjusted	Age and sex adjusted	Age, sex and income adjusted
Black v. White	10.2*	9.8*	6.2*
Asian v. White	-1.1	-1.5	-0.7
Hispanic v. White	6.4*	6.0*	3.6*

Source: 2019 NHIS (CDC/NCHS)

\* Denotes statistical significance ( $p < 0.05$ )

# Conclusion

---

For employers providing health benefits and coverage to their employees, the prevalence of health disparities across race, ethnicity and income undermines the strength and resiliency of our nation's workforce. The stark health disparities across subpopulations requires the urgent attention of the business community. Business leaders need to understand and recognize these disparities, and importantly, act to eliminate them.

Employers, health plans and providers need to be actively engaged in establishing a comprehensive health equity strategy, and there are many steps employers can take to improve the health care employees receive. Specifically related to care delivery, employers should be intentional about adopting or expanding an accountable care strategy, and health plans must be proactive and responsible for meaningful improvements to employees' health. Currently, the employer-sponsored insurance market remains significantly behind in the use of quality payment models, forcing employers and employees to depend on an antiquated fee-for-service reimbursement system that can compound health care gaps among enrollees. While the analysis did not address which strategies would best alleviate the kinds of outcomes highlighted in this report, it is evident that health plans cannot simply be passive payers of health care, but rather should use what market power they have to steer patients and providers toward better and equitable health outcomes. This may necessitate revisiting how health plans reimburse for care, how they share accountability over patient health with the providers they contract with and how they integrate population health and equity into performance metrics.

Employers must also be mindful of taking proactive steps to address unmet social needs facing employees. This analysis illustrates how low- and moderate-income employees can face significant financial barriers that impact their access to care, food and other pillars of health that can have an impact on outcomes overall. Recognizing and addressing the broader social determinants of health will also benefit health improvement over the long-term. This analysis lays the foundation for future work to track changes and evolution over time as employers and health plans work to close care gaps and address health inequities with proven interventions.

# Appendix 1: Sources and Methodology

---

NORC used data from four sources: the National Health Interview Survey (NHIS), the National Health and Nutrition Examination Survey (NHANES), the National Survey of Drug Use and Health (NSDUH) and the National Vital Statistics System (NVSS) Natality Data. This appendix describes the data sources in more detail and the methods used to produce statistics from each.

## NHIS

The NHIS is a nationally representative survey of U.S. Civilian Noninstitutionalized Population conducted each year by the National Center for Health Statistics at the Centers for Disease Control and Prevention. The survey uses a stratified cluster sample technique that first samples geographic areas and then households within the selected area. Lastly, within a household, the roster of inhabitants is taken and a single adult is randomly selected to participate in the survey. Survey weights reflect this probability of selection and are adjusted to correct for nonresponse and survey coverage. Lastly, weights are calibrated to independent totals of the U.S. Population from the U.S. Census Bureau's Population Projections and American Community Survey Estimates for age, sex, race and ethnicity, educational attainment, Census division and Metropolitan Statistical Area (MSA) status.

The statistics produced from the NHIS are derived using Horvitz-Thompson (HT) Estimators of population quantities. For a given characteristic  $x_i \in \{0,1\}$  within a domain  $d \in D$  (e.g.,  $x_i=1$  if individual  $i$  has diabetes and  $d_i=1$  if they have ESI coverage), the HT Estimator for the mean (proportion) of  $x$  in the population is:

$$\hat{\chi}_d = \frac{\hat{t}_{x,d}}{\hat{t}_d} = \frac{\sum w_i d_i x_i}{\sum w_i d_i}$$

where  $\hat{t}_{x,d}$  is the HT estimator for the number of people with characteristic  $x$  in domain  $d$ ,  $\hat{t}_d$  is the HT estimator for the total number of people in domain  $d$ , and  $w_i$  is the survey weight for individual  $i$ .

The variances are estimated using a Taylor Series approximation of true variance, using a linear combination of stratified sample HT estimators of variance for  $\hat{t}_{x,d}$  and  $\hat{t}_d$ .

## NHANES

The NHANES is a national survey and clinical examination representative of the U.S. civilian noninstitutionalized population. The survey draws a stratified cluster sample and invites selected survey participants to answer questions and have a physical examination, including laboratory tests of biospecimens, at their mobile examination van. NHANES data are weighted to reflect the sample design process and to account for survey nonresponse and coverage error. Because some NHANES participants may not appear for their examinations, NCHS/CDC produces separate weights to account for differences between the full survey sample and the subsample that have examination results.

Like the NHIS, estimates from NHANES are estimated using HT estimators of population totals. Variances are calculated using the Taylor series linearization method, taking into account the complex sample design.

NHANES respondents do not provide detailed information about their health insurance coverage. While it is possible to examine characteristics of the population with private health insurance, we cannot differentiate between those who obtain their private coverage through an employer from those that purchase it directly from an insurance provider. As such, the statistics produced using NHANES data are for the *population of adults aged 25-to-64 years with private coverage*. Approximately 86% of adults with private insurance get their coverage through an employer.

## NSDUH

The NSDUH is a national survey of the U.S. civilian noninstitutionalized population conducted by SAMSHA. The NSDUH uses a complex stratified multi-stage sample design to draw sample that oversamples younger people and minority populations. This is done to gain greater efficiency for certain key domains. Weights are designed to correct for the imbalance this over-sampling creates.

Like the NHIS and NHANES, estimates from the NSDUH are estimated using HT estimators of population totals. Variances are calculated using the Taylor series linearization method, accounting for the complex sample design.

In the NSDUH public use data files, the age of respondent is provided as a categorical variable with certain age groups already combined. Specifically, 24- and 25-year-olds are combined into one age category. Because our study intends to examine adults aged 25-to-64 years with ESI, we decided to exclude this age group and constrict the study universe to *26-to-64-year-old adults with ESI* rather than include 24-year-olds and expand the universe.

## NVSS Natality Data

The NVSS Natality Data is a dataset of information compiled from birth certificates from all fifty states and the District of Columbia. Unlike the other data sources, the NVSS represents the population of births that occurred in the United States for a particular year. Because it is not a sample, direct estimates of NVSS data are unweighted proportions and are produced without sampling error.

For most statistics in this study, we imposed an upper age limit of 64 years in defining the universe. For the natality data, we did not, in part because there is a natural age limit; pregnancy to term is exceedingly rare among women over the age of 50 and the oldest ever recorded birth in the U.S. was to a woman aged 63 years.<sup>25</sup>

While the survey data collects data about the insurance coverage of respondents, the NVSS Natality Data only collects information about the source of payment for the delivery. There are various reasons why a covered woman would not have her delivery paid by insurance, often when the delivery occurs outside of a hospital setting. In addition to this difference, the NVSS Natality Data does not differentiate between private ESI and private direct purchase coverage.

As such, the maternal health statistics in this study are for *the population of women aged 25 years and older whose deliveries were paid by private insurance*.

## Regression Adjusted Estimates

For estimates of differences across groups, we also estimated linear regression models that predicted the outcome of interests using a vector of indicators for the groups being compared and additional indicators for the covariates being adjusted on.

For example, to produce age and sex adjusted estimates of differences in diabetes prevalence across race groups, we estimated the following regression:

$$Diabetes = \alpha_0 + \sum_{k \in K} \beta_k RACE_k + \sum_{j \in J} \gamma_j AGE_j + \lambda female + \epsilon$$

The coefficients  $\beta_1, \dots, \beta_k$  represent the adjusted difference between each race group and the reference group (i.e., non-Hispanic whites). The coefficients on adjusters (age and sex) are not reported. The variances associated with the coefficients are estimated using Taylor Series linearization methods, which account for the complex sample designs. Regression adjusted estimates of differences from the NVSS Natality Data are reported without error.

## Appendix 2: Demographic Profile of the Population of Adults with ESI, 2019

Demographic Profile	Adults aged 25-64 with ESI Percent
Age	
25-34	25.1
35-44	25.5
45-54	25.5
55-64	23.9
Gender	
Male	49.8
Female	50.2
Race/Origin	
White, non-Hispanic	67.9
Black, non-Hispanic	9.9
Asian, non-Hispanic	7.1
Hispanic	13.0
Other	2.1
Sexual Orientation	
Straight	96.5
Lesbian, Gay or Bisexual	2.6
Other/unsure	0.9
Educational attainment	
Less than high school graduate	4.3
High school graduate or equivalency	21.6
Some college or associate's degree	30.6
Bachelor's degree	26.5
Master's degree or higher	16.9
Veteran status	
Veteran	5.7
Non-veteran	94.3
Family Income	
Under \$25,000	2.4
\$25,000 to \$49,999	12.7
\$50,000 to \$74,999	19.3
\$75,000 to \$99,999	18.0
\$100,000 to \$149,999	23.0
\$150,000 or more	24.5
Urbanicity	
Large central metropolitan areas	31.7
Large fringe metropolitan areas	27.4
Medium and small metropolitan areas	28.8
Non-metropolitan areas	12.0

# Appendix 3: Supplemental Tables

**SUPPLEMENTAL TABLE 1.A** Prevalence of health topic/measures, by race and ethnicity

Topic/Measure	Total (All races)		White, not Hispanic		Black, not Hispanic		Asian, not Hispanic		Hispanic		Other (AIAN, PI, SOR, 2+ races)	
	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error
<b>CHRONIC HEALTH CONDITIONS</b>												
High blood pressure - total	<b>46.5</b>	3.4	<b>46.0</b>	5.0	<b>60.4</b>	6.2	<b>40.7</b>	5.5	<b>44.2</b>	3.9	<b>40.6</b>	9.3
Diagnosed & under control	<b>10.6</b>	1.7	<b>11.7</b>	2.4	<b>9.5</b>	3.7	<b>8.0</b>	2.8	<b>7.8</b>	3.5	<b>7.4</b>	5.6
Diagnosed & not under control	<b>15.5</b>	1.8	<b>14.0</b>	2.5	<b>28.7</b>	4.5	<b>14.3</b>	3.6	<b>15.8</b>	3.2	<b>12.5</b>	5.9
Undiagnosed	<b>20.4</b>	2.2	<b>20.4</b>	3.2	<b>22.2</b>	2.8	<b>18.3</b>	2.8	<b>20.6</b>	2.9	<b>20.6</b>	8.3
High cholesterol - total	<b>26.7</b>	2.5	<b>27.2</b>	3.7	<b>25.6</b>	4.3	<b>24.2</b>	3.8	<b>26.3</b>	3.5	<b>27.1</b>	11.6
Diagnosed & under control	<b>15.3</b>	1.4	<b>15.3</b>	2.2	<b>16.6</b>	2.8	<b>13.3</b>	3.0	<b>15.7</b>	3.4	<b>14.8</b>	8.2
Diagnosed & not under control	<b>6.2</b>	1.4	<b>6.6</b>	1.9	<b>6.0</b>	2.2	<b>6.1</b>	1.9	<b>5.1</b>	2.6	<b>3.8</b>	3.7
Undiagnosed	<b>5.2</b>	1.0	<b>5.3</b>	1.6	<b>3.0</b>	1.3	<b>4.8</b>	2.1	<b>5.6</b>	2.3	<b>8.5</b>	7.2
Diabetes - total	<b>10.2</b>	1.7	<b>8.8</b>	2.3	<b>13.4</b>	2.7	<b>14.1</b>	2.5	<b>13.3</b>	2.4	<b>10.5</b>	7.0
Diagnosed & under control	<b>2.7</b>	1.0	<b>2.5</b>	1.2	<b>1.2</b>	0.7	<b>3.6</b>	1.5	<b>3.2</b>	2.0	<b>5.3</b>	5.4
Diagnosed & not under control	<b>5.5</b>	1.5	<b>5.2</b>	2.3	<b>7.9</b>	2.7	<b>6.4</b>	1.7	<b>5.9</b>	2.5	<b>3.0</b>	2.7
Undiagnosed	<b>2.0</b>	0.8	<b>1.1</b>	0.8	<b>4.3</b>	1.5	<b>4.1</b>	1.7	<b>4.1</b>	1.6	<b>2.2</b>	2.1
Asthma (diagnosed)	<b>12.5</b>	0.7	<b>13.2</b>	0.9	<b>12.0</b>	2.4	<b>6.1</b>	1.7	<b>12.2</b>	2.1	<b>17.2</b>	5.2
Urgent care/ED visit in last 12 months due to asthma	<b>0.7</b>	0.2	<b>0.7</b>	0.2	<b>0.8</b>	0.5	<b>X</b>	-	<b>1.1</b>	0.8	<b>1.4</b>	1.8
Weight status												
Underweight (BMI: <18.5)	<b>1.0</b>	0.5	<b>0.7</b>	0.7	<b>1.3</b>	1.1	<b>3.1</b>	1.3	<b>0.6</b>	1.1	<b>1.2</b>	2.5
Normal Weight (BMI: 18.5 - 24.9)	<b>24.4</b>	2.6	<b>25.8</b>	3.4	<b>14.4</b>	2.9	<b>40.1</b>	6.1	<b>14.4</b>	2.7	<b>23.2</b>	10.7
Overweight (BMI: 25.0 - 29.9)	<b>31.9</b>	2.7	<b>30.5</b>	4.2	<b>28.1</b>	2.9	<b>40.7</b>	7.0	<b>38.6</b>	5.2	<b>25.6</b>	14.2
Obese (BMI: ≥30.0)	<b>42.8</b>	3.5	<b>43.0</b>	5.3	<b>56.2</b>	4.4	<b>16.2</b>	3.1	<b>46.4</b>	4.7	<b>50.0</b>	14.4
Abdominal obesity (WHR)	<b>75.6</b>	2.9	<b>75.7</b>	3.6	<b>73.5</b>	4.3	<b>70.1</b>	3.5	<b>80.4</b>	4.2	<b>73.2</b>	12.6
Is physically active	<b>71.1</b>	2.3	<b>73.2</b>	3.0	<b>65.9</b>	3.6	<b>61.8</b>	4.3	<b>71.7</b>	3.9	<b>64.3</b>	10.9
<b>BEHAVIORAL HEALTH / SUBSTANCE USE</b>												
Saw a mental health provider in the last year	<b>8.9</b>	0.6	<b>10.2</b>	0.8	<b>5.9</b>	1.5	<b>4.7</b>	1.5	<b>5.9</b>	1.4	<b>14.1</b>	5.0
Serious psychological distress	<b>9.5</b>	0.7	<b>9.9</b>	0.9	<b>8.4</b>	1.7	<b>6.1</b>	2.5	<b>9.1</b>	1.8	<b>13.3</b>	4.0
Anxiety - total	<b>13.3</b>	0.7	<b>15.8</b>	0.9	<b>7.1</b>	1.7	<b>3.8</b>	1.5	<b>9.0</b>	1.7	<b>17.9</b>	5.9
Diagnosed & taking medication for anxiety	<b>7.7</b>	0.6	<b>9.6</b>	0.8	<b>3.1</b>	1.0	<b>1.3</b>	1.0	<b>3.9</b>	1.0	<b>11.0</b>	5.5
Diagnosed & not taking medication	<b>4.2</b>	0.4	<b>5.0</b>	0.5	<b>1.9</b>	0.8	<b>1.2</b>	0.8	<b>3.5</b>	1.1	<b>4.7</b>	2.6
Undiagnosed	<b>1.4</b>	0.2	<b>1.2</b>	0.3	<b>2.1</b>	1.1	<b>1.3</b>	0.8	<b>1.6</b>	0.8	<b>2.2</b>	1.6
Depression - total	<b>14.1</b>	0.8	<b>16.7</b>	1.0	<b>8.7</b>	1.8	<b>4.6</b>	1.6	<b>8.9</b>	1.6	<b>20.5</b>	5.8
Diagnosed & taking medication for depression	<b>7.0</b>	0.6	<b>8.8</b>	0.7	<b>2.5</b>	1.0	<b>1.9</b>	1.1	<b>3.9</b>	1.1	<b>6.5</b>	3.1
Diagnosed & not taking medication	<b>5.8</b>	0.5	<b>6.7</b>	0.6	<b>4.1</b>	1.4	<b>1.9</b>	0.9	<b>4.0</b>	1.0	<b>11.0</b>	4.8
Undiagnosed	<b>1.3</b>	0.2	<b>1.3</b>	0.3	<b>2.0</b>	0.9	<b>0.8</b>	0.7	<b>1.0</b>	0.6	<b>2.9</b>	2.4
Current use of any tobacco product	<b>19.8</b>	0.9	<b>22.7</b>	1.1	<b>15.8</b>	2.6	<b>10.2</b>	2.8	<b>12.1</b>	2.0	<b>25.4</b>	6.2

Topic/Measure	Total (All races)		White, not Hispanic		Black, not Hispanic		Asian, not Hispanic		Hispanic		Other (AIAN, PI, SOR, 2+ races)	
	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error
Current smoking	11.9	0.8	13.6	0.9	8.7	1.9	6.3	2.4	7.8	1.6	15.5	5.0
Current use of e-cigarettes	4.2	0.4	4.8	0.6	2.9	1.2	2.2	1.1	2.2	0.8	8.9	4.7
Heavy alcohol use	30.1	0.9	31.7	1.3	27.1	2.6	14.9	3.4	33.2	2.7	32.1	5.9
Alcohol abuse or dependence	5.4	0.6	6.1	0.7	4.5	1.4	2.3	1.1	4.1	1.0	6.6	3.5
Illicit drug use in past year	18.8	1.0	20.6	1.3	16.4	2.1	8.9	2.5	16.6	2.2	23.4	4.6
Illicit drug abuse or dependence	1.6	0.3	1.7	0.3	1.5	0.8	0.2	0.3	1.5	0.9	3.1	1.6

### MATERNAL HEALTH

Obstetric care												
Delivered in a hospital setting	99.0	-	98.8	-	99.2	-	99.7	-	99.3	-	98.6	-
Of hospital births, delivery by cesar- ean section	34.4	-	33.0	-	42.8	-	33.9	-	36.5	-	33.2	-
Of low-risk pregnancies in hospitals, delivery by c-section	14.9	-	13.6	-	20.1	-	17.7	-	17.0	-	14.5	-
Delivered outside hospital setting	1.0	-	1.2	-	0.8	-	0.3	-	0.7	-	1.4	-

### HEALTH SERVICES USE / ACCESS

Single service plans												
Dental insurance	58.3	1.4	60.9	1.5	49.9	4.0	58.0	4.4	50.1	3.3	66.2	7.4
Vision insurance	46.1	1.3	47.7	1.5	40.7	3.7	44.6	4.5	40.7	3.1	56.4	7.0
Health system use												
Has a "usual source" where to receive care	91.5	0.7	91.9	0.7	91.1	1.9	91.1	2.5	90.0	2.2	89.5	4.5
Had a wellness visit in the past 12 months	79.3	0.9	78.9	1.0	84.9	2.3	81.7	3.0	76.7	2.7	73.6	6.4
Had an urgent care / retail visit in the last year	30.8	1.1	32.3	1.2	30.3	3.2	23.0	3.1	27.0	2.9	35.1	7.1
Had 2 or more visits in the last year	12.7	0.8	12.8	0.9	12.5	2.1	8.9	2.2	13.1	2.3	17.7	5.7
Had an emergency department visit in the last year	16.0	0.8	15.6	0.9	20.7	2.5	11.3	2.7	16.2	2.4	22.3	5.6
Had 2 or more visits in the last year	5.1	0.5	4.8	0.5	7.2	1.6	3.3	1.4	6.3	1.7	6.2	3.4
Financial barriers to care												
Delayed medical care due to cost	6.9	0.5	6.9	0.6	8.1	1.8	2.7	1.2	7.9	1.9	9.5	4.3
Did not get needed care due to cost	5.1	0.5	5.1	0.6	6.5	1.7	1.4	0.8	6.3	1.6	6.1	3.4
Delayed mental health care due to cost	4.7	0.4	5.1	0.6	4.1	1.2	2.2	1.1	4.7	1.3	4.3	2.7
Did not get needed mental health care due to costs	5.1	0.5	5.1	0.6	6.4	1.7	1.4	0.8	6.3	1.7	6.2	3.4
Cost-related Rx non-adherence	9.8	0.8	9.1	0.9	13.9	2.9	6.8	2.7	12.4	2.7	14.4	7.0
Skipped medication doses to save money	4.8	0.6	4.2	0.6	5.9	2.0	2.2	1.5	8.3	2.4	7.7	5.3
Took less medication to save money	5.1	0.6	4.8	0.7	5.9	1.9	3.0	1.9	7.0	2.2	8.9	5.7
Delayed filling a prescription to save money	7.0	0.7	6.5	0.7	10.1	2.7	3.3	1.8	9.0	2.4	11.3	6.3
Did not get need prescription due to cost	6.7	0.7	6.1	0.8	9.7	2.5	3.7	2.0	9.5	2.5	9.2	5.8
Difficulty paying medical bills	11.9	0.8	11.5	0.9	18.2	2.7	3.4	1.4	14.2	2.6	11.5	4.5

### PREVENTIVE SERVICES

Received influenza vaccine in the past year	46.5	1.2	47.5	1.3	39.1	3.4	57.4	4.0	40.2	3.0	52.1	7.2
---	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----

Topic/Measure	Total (All races)		White, not Hispanic		Black, not Hispanic		Asian, not Hispanic		Hispanic		Other (AIAN, PI, SOR, 2+ races)	
	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error
	Cancer testing in the past 2 years											
Colonoscopy or sigmoidoscopy (of people aged 40-64 years)	42.1	1.4	45.9	1.7	39.7	3.9	31.6	5.7	29.2	3.9	30.8	9.2
Pap smear or HPV test (of women)	84.1	1.1	85.0	1.3	84.0	3.5	79.1	4.1	81.7	3.4	86.9	6.5
Mammography (of women)	74.4	1.6	74.7	1.9	75.7	5.2	70.1	6.2	76.3	5.1	64.4	12.0
<b>FOOD INSECURITY</b>												
Food insecure	7.7	0.6	5.9	0.6	16.0	2.7	4.8	1.8	12.3	2.1	12.7	5.1

**SUPPLEMENTAL TABLE 1.B** Unadjusted and adjusted differences in health topic/measures, by race and ethnicity

Topic/Measure	Black v. White difference				Asian v. White difference				Hispanic v. White difference				Other v. White difference			
	Unadjusted	Margin of error	Adjusted <sup>†</sup>	Margin of error	Unadjusted	Margin of error	Adjusted <sup>†</sup>	Margin of error	Unadjusted	Margin of error	Adjusted <sup>†</sup>	Margin of error	Unadjusted	Margin of error	Adjusted <sup>†</sup>	Margin of error
	<b>CHRONIC HEALTH CONDITIONS</b>															
High blood pressure - total	14.4	7.4	16.7	7.4	-5.3	6.8	-1.0	6.2	-1.8	7.4	1.0	8.0	-5.4	10.3	-2.7	10.7
Diagnosed & under control	-2.2	4.3	-0.9	3.7	-3.6	3.2	-1.6	2.7	-3.9	4.6	-2.0	4.3	-4.2	6.1	-2.6	5.9
Diagnosed & not under control	14.8	4.2	15.6	4.1	0.4	4.4	1.9	3.9	1.8	4.3	2.9	4.4	-1.4	6.2	-0.5	6.6
Undiagnosed	1.8	4.9	2.0	4.6	-2.1	3.6	-1.3	3.7	0.2	4.4	0.1	4.5	0.2	8.5	0.4	8.5
High cholesterol - total	-1.6	5.9	0.3	6.2	-3.0	5.8	1.2	5.2	-0.9	4.9	2.2	5.0	-0.1	12.4	3.7	11.9
Diagnosed & under control	1.3	3.6	3.1	3.6	-2.0	4.0	1.4	3.5	0.4	4.5	2.7	4.0	-0.5	9.0	2.4	8.5
Diagnosed & not under control	-0.6	3.2	-0.5	3.1	-0.5	2.3	0.1	2.1	-1.5	3.4	-1.2	3.2	-2.8	4.0	-2.3	3.9
Undiagnosed	-2.3	2.0	-2.2	2.0	-0.5	2.8	-0.2	2.9	0.2	3.3	0.7	3.3	3.2	7.5	3.5	7.6
Diabetes - total	4.6	3.2	5.3	3.3	5.4	3.7	6.9	3.9	4.5	3.6	5.6	4.0	1.8	7.2	3.2	7.2
Diagnosed & under control	-1.3	1.3	-1.3	1.3	1.1	2.1	1.4	2.1	0.7	2.2	0.8	2.2	2.8	4.8	3.1	4.7
Diagnosed & not under control	2.7	3.5	3.2	3.4	1.2	2.9	2.1	2.9	0.8	3.6	1.5	3.6	-2.2	3.9	-1.4	3.8
Undiagnosed	3.2	1.6	3.3	1.6	3.0	1.8	3.4	1.7	3.0	1.6	3.3	1.6	1.2	2.2	1.5	2.2
Asthma (diagnosed)	-1.2	2.5	-1.4	2.5	-7.1	1.9	-7.6	1.9	-1.0	2.3	-1.4	2.3	4.0	5.2	3.6	5.3
Urgent care/ED visit in last 12 months due to asthma	0.2	0.6	0.1	0.6	-0.7	0.2	-0.7	0.2	0.4	0.8	0.4	0.8	0.8	1.8	0.7	1.8
Weight status																
Underweight (BMI: <18.5)	0.5	1.3	0.5	1.4	2.3	1.5	2.3	1.5	-0.1	1.3	-0.1	1.3	0.5	2.6	0.6	2.7
Normal Weight (BMI: 18.5 - 24.9)	-11.4	4.6	-12.3	3.3	14.3	4.6	12.7	3.3	-11.4	4.6	-11.6	3.3	-2.6	4.6	-3.2	3.3
Overweight (BMI: 25.0 - 29.9)	-2.4	6.0	-1.8	5.6	10.2	8.4	11.1	8.1	8.1	7.6	8.3	7.3	-4.9	15.5	-4.6	14.9
Obese (BMI: ≥30.0)	13.2	7.1	13.6	6.8	-26.8	6.5	-26.2	6.2	3.4	7.9	3.4	7.7	7.0	17.1	7.3	17.3
Abdominal obesity (WHR)	-2.2	5.3	-0.5	5.0	-5.5	5.1	-1.8	5.6	4.8	5.4	5.8	5.7	-2.5	11.6	-1.1	11.0
Is physically active	-7.3	4.2	-6.6	4.1	-11.4	5.2	-12.0	5.2	-1.5	5.1	-1.9	5.0	-8.8	10.8	-9.7	10.2
<b>BEHAVIORAL HEALTH / SUBSTANCE USE</b>																
Saw a mental health provider in the last year	-4.3	1.7	-5.0	1.7	-5.5	1.7	-6.4	1.8	-4.3	1.5	-5.0	1.5	3.9	5.0	3.1	5.0
Serious psychological distress	-1.5	1.8	-2.0	1.7	-3.8	2.9	-5.2	2.7	-0.9	1.8	-1.8	1.8	3.3	3.8	2.0	3.8
Anxiety - total	-8.7	1.9	-9.6	2.0	-12.1	1.8	-13.1	1.8	-6.8	1.9	-7.6	1.9	2.1	6.0	1.1	5.9



Topic/Measure	Black v. White difference				Asian v. White difference				Hispanic v. White difference				Other v. White difference			
	Unadjusted		Adjusted <sup>†</sup>		Unadjusted		Adjusted <sup>†</sup>		Unadjusted		Adjusted <sup>†</sup>		Unadjusted		Adjusted <sup>†</sup>	
	Margin of error		Margin of error		Margin of error		Margin of error		Margin of error		Margin of error		Margin of error		Margin of error	
Diagnosed & taking medication for anxiety	<b>-6.5</b>	1.3	<b>-7.1</b>	1.4	<b>-8.2</b>	1.3	<b>-8.7</b>	1.3	<b>-5.6</b>	1.3	<b>-6.0</b>	1.3	<b>1.5</b>	5.6	<b>0.9</b>	5.5
Diagnosed & not taking medication	<b>-3.1</b>	0.9	<b>-3.4</b>	1.0	<b>-3.9</b>	0.9	<b>-4.3</b>	1.0	<b>-1.5</b>	1.2	<b>-1.9</b>	1.2	<b>-0.3</b>	2.7	<b>-0.7</b>	2.7
Undiagnosed	<b>0.9</b>	1.2	<b>0.8</b>	1.2	<b>0.0</b>	0.9	<b>-0.1</b>	0.9	<b>0.3</b>	0.8	<b>0.3</b>	0.8	<b>0.9</b>	1.6	<b>0.9</b>	1.6
Depression - total	<b>-8.0</b>	2.1	<b>-8.8</b>	2.1	<b>-12.1</b>	2.0	<b>-12.8</b>	2.0	<b>-7.8</b>	1.8	<b>-8.2</b>	1.8	<b>3.8</b>	5.9	<b>3.1</b>	5.8
Diagnosed & taking medication for depression	<b>-6.2</b>	1.3	<b>-6.7</b>	1.3	<b>-6.8</b>	1.4	<b>-7.0</b>	1.4	<b>-4.9</b>	1.3	<b>-4.9</b>	1.3	<b>-2.2</b>	3.2	<b>-2.4</b>	3.1
Diagnosed & not taking medication	<b>-2.5</b>	1.5	<b>-2.8</b>	1.5	<b>-4.8</b>	1.1	<b>-5.2</b>	1.2	<b>-2.6</b>	1.2	<b>-3.0</b>	1.2	<b>4.4</b>	4.8	<b>4.0</b>	4.8
Undiagnosed	<b>0.7</b>	0.9	<b>0.7</b>	0.9	<b>-0.5</b>	0.7	<b>-0.5</b>	0.8	<b>-0.3</b>	0.6	<b>-0.3</b>	0.6	<b>1.6</b>	2.4	<b>1.6</b>	2.4
Current use of any tobacco product	<b>-6.9</b>	2.8	<b>-6.3</b>	2.8	<b>-12.4</b>	3.0	<b>-12.3</b>	2.9	<b>-10.6</b>	2.3	<b>-10.9</b>	2.3	<b>2.7</b>	6.2	<b>2.9</b>	6.2
Current smoking	<b>-4.9</b>	2.1	<b>-4.8</b>	2.2	<b>-7.3</b>	2.5	<b>-7.2</b>	2.5	<b>-5.8</b>	1.9	<b>-5.8</b>	1.9	<b>1.9</b>	5.0	<b>2.0</b>	5.1
Current use of e-cigarettes	<b>-1.8</b>	1.3	<b>-1.8</b>	1.3	<b>-2.6</b>	1.3	<b>-2.9</b>	1.3	<b>-2.6</b>	1.0	<b>-3.0</b>	1.0	<b>4.1</b>	4.7	<b>3.8</b>	4.6
Heavy alcohol use	<b>-4.6</b>	3.1	<b>-4.6</b>	2.9	<b>-16.8</b>	3.7	<b>-18.4</b>	3.2	<b>1.5</b>	3.2	<b>-0.3</b>	3.2	<b>0.4</b>	6.1	<b>-1.5</b>	6.0
Alcohol abuse or dependence	<b>-1.6</b>	1.5	<b>-1.5</b>	1.4	<b>-3.8</b>	1.3	<b>-4.1</b>	1.3	<b>-2.0</b>	1.1	<b>-2.4</b>	1.1	<b>0.5</b>	3.5	<b>0.1</b>	3.6
Illicit drug use in past year	<b>-4.2</b>	2.5	<b>-4.2</b>	2.4	<b>-11.7</b>	2.9	<b>-13.2</b>	2.8	<b>-4.0</b>	2.5	<b>-5.8</b>	2.5	<b>2.9</b>	4.6	<b>1.2</b>	4.3
Illicit drug abuse or dependence	<b>-0.2</b>	0.9	<b>-0.2</b>	0.9	<b>-1.5</b>	0.3	<b>-1.7</b>	0.4	<b>-0.3</b>	1.0	<b>-0.5</b>	0.9	<b>1.4</b>	1.5	<b>1.2</b>	1.5

## MATERNAL HEALTH

### Obstetric care

Delivered in a hospital setting	<b>0.4</b>	-	<b>0.4</b>	-	<b>0.9</b>	-	<b>0.9</b>	-	<b>0.5</b>	-	<b>0.5</b>	-	<b>-0.2</b>	-	<b>-0.2</b>	-
Of hospital births, delivery by cesarean section	<b>9.9</b>	-	<b>9.3</b>	-	<b>0.9</b>	-	<b>-0.5</b>	-	<b>3.6</b>	-	<b>3.6</b>	-	<b>0.2</b>	-	<b>0.2</b>	-
Of low-risk pregnancies in hospitals, delivery by c-section	<b>6.5</b>	-	<b>6.5</b>	-	<b>4.0</b>	-	<b>3.9</b>	-	<b>3.4</b>	-	<b>3.4</b>	-	<b>0.9</b>	-	<b>0.9</b>	-
Delivered outside hospital setting	<b>-0.4</b>	-	<b>-0.4</b>	-	<b>-0.9</b>	-	<b>-0.9</b>	-	<b>-0.5</b>	-	<b>-0.5</b>	-	<b>0.2</b>	-	<b>0.2</b>	-

## HEALTH SERVICES USE / ACCESS

### Single service plans

Dental insurance	<b>-11.0</b>	4.2	<b>-11.3</b>	4.1	<b>-2.9</b>	4.4	<b>-3.2</b>	4.5	<b>-10.8</b>	3.5	<b>-11.1</b>	3.5	<b>5.3</b>	7.4	<b>5.0</b>	7.5
Vision insurance	<b>-7.0</b>	3.9	<b>-7.3</b>	3.9	<b>-3.1</b>	4.5	<b>-3.5</b>	4.6	<b>-7.0</b>	3.3	<b>-7.3</b>	3.3	<b>8.7</b>	7.0	<b>8.4</b>	7.1

### Health system use

Has a "usual source" where to receive care	<b>-0.9</b>	2.1	<b>-1.0</b>	2.0	<b>-0.9</b>	2.6	<b>-0.1</b>	2.4	<b>-2.0</b>	2.2	<b>-1.0</b>	2.2	<b>-2.4</b>	4.6	<b>-1.9</b>	4.6
Had a wellness visit in the past 12 months	<b>6.0</b>	2.5	<b>5.8</b>	2.4	<b>2.8</b>	3.1	<b>3.8</b>	3.1	<b>-2.3</b>	2.9	<b>-0.9</b>	2.9	<b>-5.3</b>	6.5	<b>-4.6</b>	6.4
Had an urgent care / retail visit in the last year	<b>-2.0</b>	3.4	<b>-2.7</b>	3.4	<b>-9.3</b>	3.2	<b>-10.5</b>	3.2	<b>-5.3</b>	3.1	<b>-6.3</b>	3.1	<b>2.9</b>	7.2	<b>1.9</b>	7.2
Had 2 or more visits in the last year	<b>-0.4</b>	2.2	<b>-0.9</b>	2.2	<b>-3.9</b>	2.4	<b>-4.6</b>	2.4	<b>0.2</b>	2.4	<b>-0.3</b>	2.4	<b>4.8</b>	5.7	<b>4.3</b>	5.7
Had an emergency department visit in the last year	<b>5.1</b>	2.7	<b>4.9</b>	2.7	<b>-4.3</b>	2.8	<b>-4.5</b>	2.9	<b>0.6</b>	2.5	<b>0.5</b>	2.5	<b>6.7</b>	5.7	<b>6.5</b>	5.7
Had 2 or more visits in the last year	<b>2.4</b>	1.7	<b>2.3</b>	1.7	<b>-1.4</b>	1.5	<b>-1.6</b>	1.5	<b>1.6</b>	1.7	<b>1.5</b>	1.7	<b>1.5</b>	3.5	<b>1.4</b>	3.5

### Financial barriers to care

Topic/Measure	Black v. White difference				Asian v. White difference				Hispanic v. White difference				Other v. White difference			
	Unadjusted	Margin of error	Adjusted†	Margin of error	Unadjusted	Margin of error	Adjusted†	Margin of error	Unadjusted	Margin of error	Adjusted†	Margin of error	Unadjusted	Margin of error	Adjusted†	Margin of error
	Delayed medical care due to cost	<b>1.1</b>	1.9	<b>0.8</b>	1.9	<b>-4.3</b>	1.3	<b>-4.6</b>	1.3	<b>0.9</b>	2.0	<b>0.7</b>	2.0	<b>2.5</b>	4.4	<b>2.3</b>
Did not get needed care due to cost	<b>1.4</b>	1.8	<b>1.2</b>	1.7	<b>-3.7</b>	1.0	<b>-3.9</b>	1.0	<b>1.3</b>	1.7	<b>1.1</b>	1.8	<b>1.1</b>	3.4	<b>0.9</b>	3.4
Delayed mental health care due to cost	<b>-1.0</b>	1.4	<b>-1.5</b>	1.4	<b>-2.8</b>	1.2	<b>-3.6</b>	1.3	<b>-0.4</b>	1.4	<b>-1.0</b>	1.4	<b>-0.8</b>	2.8	<b>-1.4</b>	2.7
Did not get needed mental health care due to costs	<b>1.1</b>	1.8	<b>0.8</b>	1.8	<b>-3.7</b>	1.0	<b>-3.9</b>	1.0	<b>1.2</b>	1.8	<b>1.1</b>	1.8	<b>1.1</b>	3.5	<b>0.9</b>	3.5
Cost-related Rx non-adherence	<b>4.8</b>	3.1	<b>4.5</b>	3.1	<b>-2.3</b>	2.9	<b>-2.7</b>	2.9	<b>3.4</b>	2.8	<b>2.9</b>	2.9	<b>5.3</b>	7.0	<b>4.8</b>	7.0
Skipped medication doses to save money	<b>1.7</b>	2.1	<b>1.6</b>	2.1	<b>-2.1</b>	1.7	<b>-2.3</b>	1.7	<b>4.0</b>	2.5	<b>3.8</b>	2.5	<b>3.5</b>	5.3	<b>3.2</b>	5.3
Took less medication to save money	<b>1.2</b>	2.0	<b>1.0</b>	2.0	<b>-1.8</b>	2.0	<b>-2.0</b>	2.0	<b>2.2</b>	2.3	<b>2.0</b>	2.3	<b>4.1</b>	5.7	<b>3.9</b>	5.7

Topic/Measure	Black v. White difference				Asian v. White difference				Hispanic v. White difference				Other v. White difference			
	Unadjusted	Margin of error	Adjusted†	Margin of error	Unadjusted	Margin of error	Adjusted†	Margin of error	Unadjusted	Margin of error	Adjusted†	Margin of error	Unadjusted	Margin of error	Adjusted†	Margin of error
	Delayed filling a prescription to save money	<b>3.6</b>	2.9	<b>3.4</b>	2.8	<b>-3.2</b>	1.9	<b>-3.6</b>	1.9	<b>2.5</b>	2.5	<b>2.1</b>	2.5	<b>4.8</b>	6.4	<b>4.4</b>
Did not get need prescription due to cost	<b>3.6</b>	2.6	<b>3.3</b>	2.6	<b>-2.4</b>	2.2	<b>-2.7</b>	2.2	<b>3.4</b>	2.6	<b>3.0</b>	2.7	<b>3.1</b>	5.8	<b>2.7</b>	5.8
Difficulty paying medical bills	<b>6.8</b>	2.9	<b>6.4</b>	2.8	<b>-8.1</b>	1.7	<b>-8.4</b>	1.7	<b>2.8</b>	2.7	<b>2.6</b>	2.7	<b>0.0</b>	4.6	<b>-0.3</b>	4.6

### PREVENTIVE SERVICES

Received influenza vaccine in the past year	<b>-8.5</b>	3.6	<b>-8.4</b>	3.6	<b>9.8</b>	4.2	<b>10.7</b>	4.1	<b>-7.3</b>	3.2	<b>-6.1</b>	3.2	<b>4.6</b>	7.3	<b>5.3</b>	7.5
Cancer testing in the past 2 years																
Colonoscopy or sigmoidoscopy (of people aged 40-64 years)	<b>-2.7</b>	4.1	<b>-1.9</b>	3.8	<b>-10.1</b>	5.2	<b>-5.3</b>	5.1	<b>-13.1</b>	4.1	<b>-9.7</b>	3.9	<b>-12.6</b>	8.1	<b>-8.2</b>	7.3
Pap smear or HPV test (of women)	<b>4.7</b>	4.4	<b>3.5</b>	4.4	<b>-1.2</b>	5.1	<b>-3.4</b>	5.1	<b>1.5</b>	4.3	<b>-0.6</b>	4.2	<b>1.2</b>	10.4	<b>0.0</b>	10.5
Mammography (of women)	<b>1.0</b>	5.5	<b>2.3</b>	5.5	<b>-4.5</b>	6.5	<b>-1.2</b>	6.4	<b>1.6</b>	5.4	<b>3.8</b>	5.1	<b>-10.3</b>	12.3	<b>-7.9</b>	11.3

### FOOD INSECURITY

Food insecure	<b>10.2</b>	2.8	<b>9.8</b>	2.8	<b>-1.1</b>	1.9	<b>-1.5</b>	1.9	<b>6.4</b>	2.2	<b>6.0</b>	2.2	<b>6.9</b>	5.1	<b>6.5</b>	5.0
---------------	-------------	-----	------------	-----	-------------	-----	-------------	-----	------------	-----	------------	-----	------------	-----	------------	-----

**SUPPLEMENTAL TABLE 2.A** Prevalence of health topic/measures, by income

Topic/Measure	Total (All income levels)		Income Group (1) Under \$50,000		Income Group (2) \$50,000-\$74,999		Income Group (3) \$75,000-\$99,999		Income Group (4) \$100,000-\$149,999		Income Group (5) \$150,000 or more	
	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error
	<b>CHRONIC HEALTH CONDITIONS</b>											
Asthma (diagnosed)	12.5	0.7	13.7	1.8	12.8	1.5	14.3	1.8	11.7	1.5	11.2	1.5
Urgent care/ED visit in last 12 months due to asthma	0.7	0.2	0.8	0.4	0.8	0.4	1.0	0.6	0.7	0.4	0.4	0.3
<b>BEHAVIORAL HEALTH / SUBSTANCE USE</b>												
Saw a mental health provider in the last year	8.9	0.6	8.3	1.3	9.2	1.3	9.2	1.4	8.2	1.1	9.5	1.2
Anxiety - total	13.3	0.7	17.3	1.9	15.1	1.6	14.0	1.7	12.4	1.5	9.7	1.2
Diagnosed & taking medication for anxiety	7.7	0.6	8.6	1.4	9.1	1.4	7.9	1.4	7.3	1.1	6.0	1.0
Diagnosed & not taking medication	4.2	0.4	6.3	1.1	4.0	0.9	4.6	1.0	4.1	0.9	3.1	0.6
Undiagnosed	1.4	0.2	2.4	0.7	2.0	0.6	1.4	0.7	1.0	0.4	0.6	0.3
Depression - total	14.1	0.8	19.7	2.0	17.6	1.8	14.8	1.9	12.0	1.5	9.6	1.3
Diagnosed & taking medication for depression	7.0	0.6	8.8	1.4	9.3	1.4	7.0	1.3	6.3	1.0	4.7	0.9
Diagnosed & not taking medication	5.8	0.5	8.8	1.4	6.4	1.1	6.5	1.3	4.7	0.9	4.1	0.8
Undiagnosed	1.3	0.2	2.1	0.7	1.9	0.6	1.2	0.6	0.9	0.4	0.8	0.3
Current use of any tobacco product	19.8	0.9	27.0	2.4	23.0	2.1	21.5	2.1	19.0	1.9	12.4	1.4
Current smoking	11.9	0.8	20.6	2.1	15.6	1.8	12.9	1.8	9.9	1.5	4.8	1.0
Current use of e-cigarettes	4.2	0.4	5.6	1.2	4.7	1.1	4.7	1.1	4.2	1.0	2.3	0.7
<b>HEALTH SERVICES USE / ACCESS</b>												
Single service plans												
Dental insurance	58.3	1.4	43.5	2.6	52.8	2.7	59.3	2.7	61.4	2.4	68.2	2.3
Vision insurance	46.1	1.3	34.6	2.6	42.6	2.7	47.5	2.8	47.6	2.5	53.3	2.3
Health system use												
Has a "usual source" where to receive care	91.5	0.7	87.6	1.8	89.6	1.6	90.8	1.4	92.6	1.2	94.8	1.1
Had a wellness visit in the past 12 months	79.3	0.9	76.2	2.4	77.1	2.1	78.4	2.1	79.7	1.9	83.2	1.8
Had an urgent care / retail visit in the last year	30.8	1.1	29.4	2.5	31.7	2.3	30.2	2.4	30.6	2.1	31.6	2.0
Had 2 or more visits in the last year	12.7	0.8	14.1	1.9	13.4	1.8	12.5	1.6	11.8	1.4	12.1	1.4
Had an emergency department visit in the last year	16.0	0.8	20.1	2.2	18.6	1.9	15.7	2.0	14.8	1.6	12.9	1.5
Had 2 or more visits in the last year	5.1	0.5	7.4	1.3	6.0	1.2	5.4	1.3	4.1	0.9	3.9	0.8
Financial barriers to care												
Delayed medical care due to cost	6.9	0.5	12.7	1.6	10.4	1.6	6.9	1.4	5.4	1.1	2.0	0.6
Did not get needed care due to cost	5.1	0.5	10.0	1.5	7.7	1.4	5.1	1.3	3.9	1.0	1.3	0.5
Delayed mental health care due to cost	4.7	0.4	7.0	1.3	6.6	1.2	5.1	1.2	3.6	0.9	2.6	0.7
Did not get needed mental health care due to costs	5.1	0.5	10.0	1.5	7.7	1.4	4.9	1.2	3.9	1.0	1.3	0.5
Cost-related Rx non-adherence	9.8	0.8	19.2	2.6	13.3	2.1	9.7	1.9	7.8	1.7	3.8	1.0
Skipped medication doses to save money	4.8	0.6	11.1	2.1	7.1	1.6	4.0	1.2	3.2	1.0	1.4	0.6

Topic/Measure	Total (All income levels)		Income Group (1) Under \$50,000		Income Group (2) \$50,000- \$74,999		Income Group (3) \$75,000- \$99,999		Income Group (4) \$100,000- \$149,999		Income Group (5) \$150,000 or more	
	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error
Took less medication to save money	<b>5.1</b>	0.6	<b>11.4</b>	2.1	<b>7.2</b>	1.6	<b>4.2</b>	1.2	<b>4.3</b>	1.2	<b>1.2</b>	0.5
Delayed filling a prescription to save money	<b>7.0</b>	0.7	<b>14.1</b>	2.3	<b>9.5</b>	1.9	<b>7.6</b>	1.7	<b>5.3</b>	1.4	<b>2.2</b>	0.7
Did not get need prescription due to cost	<b>6.7</b>	0.7	<b>14.8</b>	2.4	<b>9.5</b>	1.8	<b>6.1</b>	1.7	<b>4.8</b>	1.4	<b>2.2</b>	0.7
Difficulty paying medical bills	<b>11.9</b>	0.8	<b>21.5</b>	2.2	<b>18.4</b>	2.1	<b>11.9</b>	1.8	<b>9.5</b>	1.4	<b>3.2</b>	0.8
<b>PREVENTIVE SERVICES</b>												
Received influenza vaccine in the past year	<b>46.5</b>	1.2	<b>42.1</b>	2.8	<b>41.2</b>	2.3	<b>42.6</b>	2.5	<b>48.9</b>	2.4	<b>54.2</b>	2.3
Cancer testing in the past 2 years												
Colonoscopy or sigmoidoscopy (of people aged 40-64 years)	<b>42.1</b>	1.4	<b>36.7</b>	3.3	<b>39.8</b>	3.4	<b>38.2</b>	3.3	<b>44.3</b>	3.1	<b>46.9</b>	2.8
Pap smear or HPV test (of women)	<b>84.1</b>	1.1	<b>77.4</b>	2.8	<b>81.2</b>	2.8	<b>82.8</b>	2.9	<b>87.0</b>	2.3	<b>89.2</b>	1.8
Mammography (of women)	<b>74.4</b>	1.6	<b>70.8</b>	4.1	<b>71.6</b>	4.0	<b>72.2</b>	4.4	<b>74.0</b>	3.6	<b>80.5</b>	2.7
<b>FOOD INSECURITY</b>												
Food insecure	<b>7.7</b>	0.6	<b>21.7</b>	2.3	<b>11.8</b>	1.6	<b>6.3</b>	1.4	<b>3.5</b>	1.0	<b>1.1</b>	0.4

SUPPLEMENTAL TABLE 2.B

## Unadjusted and adjusted differences in health topic/measures, by income

Topic/Measure	Income Group 1 v. 5 difference				Income Group 2 v. 5 difference				Income Group 3 v. 5 difference				Income Group 4 v. 5 difference			
	Unadjusted	Margin of error	Adjusted <sup>a</sup>	Margin of error	Unadjusted	Margin of error	Adjusted <sup>a</sup>	Margin of error	Unadjusted	Margin of error	Adjusted <sup>a</sup>	Margin of error	Unadjusted	Margin of error	Adjusted <sup>a</sup>	Margin of error
	<b>CHRONIC HEALTH CONDITIONS</b>															
Asthma (diagnosed)	2.5	2.4	1.8	2.3	1.6	2.1	1.1	2.1	3.1	2.3	2.7	2.3	0.5	2.2	0.3	2.2
Urgent care/ED visit in last 12 months due to asthma	0.4	0.5	0.4	0.6	0.4	0.5	0.4	0.5	0.6	0.7	0.6	0.7	0.3	0.5	0.3	0.5
<b>BEHAVIORAL HEALTH / SUBSTANCE USE</b>																
Saw a mental health provider in the last year	-1.3	1.7	-2.1	1.7	-0.3	1.7	-0.8	1.7	-0.4	1.7	-0.7	1.8	-1.4	1.7	-1.5	1.7
Anxiety - total	7.6	2.2	7.0	2.2	5.4	2.1	5.1	2.0	4.3	2.1	4.2	2.1	2.7	2.0	2.8	2.0
Diagnosed & taking medication for anxiety	2.6	1.7	2.5	1.7	3.1	1.7	3.1	1.7	1.9	1.7	2.1	1.7	1.3	1.6	1.5	1.6
Diagnosed & not taking medication	3.3	1.3	2.8	1.3	1.0	1.1	0.7	1.1	1.6	1.2	1.3	1.2	1.0	1.1	0.9	1.1
Undiagnosed	1.7	0.8	1.7	0.8	1.3	0.7	1.3	0.7	0.8	0.7	0.8	0.8	0.4	0.5	0.4	0.5
Depression - total	10.1	2.3	9.9	2.2	8.0	2.3	8.0	2.2	5.3	2.3	5.5	2.3	2.4	2.0	2.6	2.0
Diagnosed & taking medication for depression	4.1	1.7	4.1	1.7	4.5	1.7	4.7	1.7	2.3	1.6	2.6	1.6	1.6	1.4	1.8	1.4
Diagnosed & not taking medication	4.7	1.6	4.4	1.6	2.3	1.4	2.1	1.4	2.5	1.5	2.3	1.5	0.7	1.2	0.6	1.2
Undiagnosed	1.3	0.7	1.4	0.7	1.2	0.7	1.2	0.7	0.5	0.6	0.5	0.7	0.2	0.5	0.2	0.5
Current use of any tobacco product	14.6	2.7	15.6	2.8	10.6	2.5	11.2	2.5	9.0	2.5	9.1	2.5	6.6	2.4	6.4	2.4
Current smoking	15.8	2.4	16.5	2.4	10.8	2.0	11.3	2.1	8.1	2.0	8.5	2.0	5.1	1.8	5.2	1.8
Current use of e-cigarettes	3.2	1.4	3.0	1.5	2.4	1.3	2.2	1.3	2.4	1.3	2.1	1.2	1.9	1.2	1.7	1.2
<b>HEALTH SERVICES USE / ACCESS</b>																
Single service plans																
Dental insurance	-24.7	3.4	-24.5	3.4	-15.4	3.4	-15.2	3.4	-8.9	3.2	-8.7	3.2	-6.8	3.1	-6.7	3.1
Vision insurance	-18.7	3.3	-18.4	3.3	-10.7	3.4	-10.5	3.4	-5.8	3.4	-5.5	3.4	-5.8	3.5	-5.6	3.5
Health system use																
Has a "usual source" where to receive care	-7.3	2.1	-6.2	2.1	-5.3	1.8	-4.4	1.8	-4.0	1.8	-2.9	1.7	-2.3	1.5	-1.6	1.5
Had a wellness visit in the past 12 months	-7.0	3.0	-6.4	3.0	-6.1	2.7	-5.5	2.7	-4.8	2.6	-3.7	2.6	-3.4	2.6	-2.7	2.5
Had an urgent care / retail visit in the last year	-2.2	3.3	-3.2	3.3	0.0	3.0	-0.6	3.0	-1.4	3.1	-1.9	3.2	-1.0	2.8	-1.2	2.8
Had 2 or more visits in the last year	1.9	2.4	1.5	2.4	1.2	2.1	1.0	2.1	0.4	2.1	0.2	2.2	-0.3	2.0	-0.4	2.0
Had an emergency department visit in the last year	7.2	2.7	7.1	2.7	5.7	2.5	5.7	2.5	2.8	2.5	2.8	2.5	1.9	2.2	2.0	2.2
Had 2 or more visits in the last year	3.6	1.6	3.4	1.6	2.1	1.5	2.0	1.5	1.5	1.5	1.4	1.6	0.3	1.2	0.2	1.2
Financial barriers to care																
Delayed medical care due to cost	10.6	1.7	10.5	1.8	8.4	1.7	8.4	1.7	4.9	1.5	5.0	1.5	3.3	1.3	3.4	1.3
Did not get needed care due to cost	8.7	1.5	8.7	1.6	6.4	1.4	6.4	1.4	3.8	1.4	3.9	1.4	2.6	1.2	2.7	1.2

Topic/Measure	Income Group 1 v. 5 difference				Income Group 2 v. 5 difference				Income Group 3 v. 5 difference				Income Group 4 v. 5 difference			
	Unadjusted	Margin of error	Adjusted <sup>f</sup>	Margin of error	Unadjusted	Margin of error	Adjusted <sup>f</sup>	Margin of error	Unadjusted	Margin of error	Adjusted <sup>f</sup>	Margin of error	Unadjusted	Margin of error	Adjusted <sup>f</sup>	Margin of error
	Delayed mental health care due to cost	<b>4.4</b>	1.5	<b>3.7</b>	1.4	<b>4.0</b>	1.4	<b>3.5</b>	1.4	<b>2.5</b>	1.3	<b>2.1</b>	1.3	<b>1.1</b>	1.1	<b>0.9</b>
Did not get needed mental health care due to costs	<b>8.6</b>	1.6	<b>8.6</b>	1.6	<b>6.4</b>	1.5	<b>6.4</b>	1.5	<b>3.6</b>	1.3	<b>3.7</b>	1.3	<b>2.6</b>	1.2	<b>2.7</b>	1.2
Cost-related Rx non-adherence	<b>15.4</b>	2.8	<b>15.4</b>	2.8	<b>9.5</b>	2.3	<b>9.6</b>	2.3	<b>5.9</b>	2.2	<b>6.1</b>	2.2	<b>4.1</b>	2.0	<b>4.2</b>	2.0
Skipped medication doses to save money	<b>9.7</b>	2.2	<b>9.7</b>	2.2	<b>5.7</b>	1.7	<b>5.7</b>	1.7	<b>2.6</b>	1.3	<b>2.7</b>	1.3	<b>1.8</b>	1.2	<b>1.8</b>	1.2
Took less medication to save money	<b>10.3</b>	2.2	<b>10.2</b>	2.2	<b>6.0</b>	1.7	<b>6.0</b>	1.7	<b>3.1</b>	1.3	<b>3.1</b>	1.3	<b>3.1</b>	1.4	<b>3.2</b>	1.4
Delayed filling a prescription to save money	<b>11.8</b>	2.4	<b>11.7</b>	2.4	<b>7.3</b>	2.0	<b>7.3</b>	2.0	<b>5.3</b>	1.9	<b>5.4</b>	1.9	<b>3.1</b>	1.6	<b>3.2</b>	1.6
Did not get need prescription due to cost	<b>12.6</b>	2.5	<b>12.6</b>	2.6	<b>7.3</b>	1.9	<b>7.4</b>	1.9	<b>3.9</b>	1.8	<b>4.0</b>	1.8	<b>2.6</b>	1.6	<b>2.8</b>	1.6
Difficulty paying medical bills	<b>18.3</b>	2.3	<b>18.6</b>	2.4	<b>15.2</b>	2.2	<b>15.5</b>	2.3	<b>8.6</b>	1.9	<b>9.0</b>	1.9	<b>6.2</b>	1.6	<b>6.4</b>	1.6
<b>PREVENTIVE SERVICES</b>																
Received influenza vaccine in the past year	<b>-12.1</b>	3.5	<b>-12.4</b>	3.6	<b>-13.0</b>	3.1	<b>-13.2</b>	3.1	<b>-11.6</b>	3.3	<b>-11.4</b>	3.3	<b>-5.3</b>	3.2	<b>-5.0</b>	3.1
Cancer testing in the past 2 years																
Colonoscopy or sigmoidoscopy (of people aged 40-64 years)	<b>-8.5</b>	4.1	<b>-12.7</b>	3.8	<b>-6.9</b>	4.5	<b>-9.8</b>	4.2	<b>-7.0</b>	4.2	<b>-10.1</b>	3.8	<b>-2.1</b>	4.4	<b>-3.1</b>	3.9
Pap smear or HPV test (of women)	<b>-13.5</b>	4.3	<b>-14.6</b>	4.2	<b>-7.3</b>	4.0	<b>-7.9</b>	4.0	<b>-5.1</b>	4.3	<b>-6.0</b>	4.3	<b>-3.9</b>	3.9	<b>-4.4</b>	4.0
Mammography (of women)	<b>-9.7</b>	4.9	<b>-10.7</b>	4.8	<b>-8.9</b>	4.7	<b>-9.9</b>	4.6	<b>-8.3</b>	5.3	<b>-8.2</b>	5.2	<b>-6.6</b>	4.6	<b>-6.9</b>	4.5
<b>FOOD INSECURITY</b>																
Food insecure	<b>20.6</b>	2.3	<b>20.7</b>	2.3	<b>10.7</b>	1.7	<b>10.8</b>	1.7	<b>5.2</b>	1.5	<b>5.4</b>	1.5	<b>2.4</b>	1.0	<b>2.5</b>	1.0

**SUPPLEMENTAL TABLE 3.A** Prevalence of behavioral health and substance use, by income

Topic/Measure	Total (All income levels)		Income Group (1) Under \$50,000		Income Group (2) \$50,000-\$74,999		Income Group (3) \$75,000 or more	
	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error
	<b>BEHAVIORAL HEALTH / SUBSTANCE USE</b>							
Serious psychological distress	<b>9.5</b>	0.7	<b>13.2</b>	1.5	<b>11.0</b>	1.5	<b>7.8</b>	0.7
Heavy alcohol use	<b>30.1</b>	0.9	<b>28.2</b>	1.9	<b>31.1</b>	2.2	<b>30.5</b>	1.3
Alcohol abuse or dependence	<b>5.4</b>	0.6	<b>4.8</b>	1.0	<b>5.5</b>	0.9	<b>5.5</b>	0.8
Illicit drug use in past year	<b>18.8</b>	1.0	<b>20.4</b>	1.8	<b>20.3</b>	1.9	<b>17.8</b>	1.2
Illicit drug abuse or dependence	<b>1.6</b>	0.3	<b>2.2</b>	0.6	<b>2.3</b>	0.6	<b>1.2</b>	0.3

**SUPPLEMENTAL TABLE 3.B** Unadjusted and adjusted differences in behavioral health and substance use, by income

Topic/Measure	Income Group 1 v. 3 difference				Income Group 2 v. 3 difference			
	Unadjusted	Margin of error	Adjusted <sup>†</sup>	Margin of error	Unadjusted	Margin of error	Adjusted <sup>†</sup>	Margin of error
<b>BEHAVIORAL HEALTH / SUBSTANCE USE</b>								
Serious psychological distress	<b>5.4</b>	1.5	<b>3.9</b>	1.5	<b>3.2</b>	1.3	<b>2.3</b>	1.4
Heavy alcohol use	<b>-2.3</b>	2.3	<b>-2.6</b>	2.3	<b>0.6</b>	2.7	<b>0.1</b>	2.7
Alcohol abuse or dependence	<b>-0.7</b>	1.2	<b>-0.8</b>	1.2	<b>-0.1</b>	1.2	<b>-0.2</b>	1.2
Illicit drug use in past year	<b>2.6</b>	2.0	<b>1.5</b>	2.1	<b>2.6</b>	2.1	<b>1.6</b>	2.1
Illicit drug abuse or dependence	<b>0.9</b>	0.7	<b>0.8</b>	0.7	<b>1.0</b>	0.7	<b>0.9</b>	0.7

**SUPPLEMENTAL TABLE 4** Prevalence of health topic/measure, by sexual orientation

Topic/Measure	Total		Straight/ Heterosexual		Lesbian, Gay or Bisexual		Difference (Lesbian, Gay or Bisexual v. Straight)			
	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error	Un-adjusted	Margin of error	Adjust-ed <sup>†</sup>	Margin of error
<b>CHRONIC HEALTH CONDITIONS</b>										
Asthma (diagnosed)	<b>12.5</b>	0.7	<b>12.4</b>	0.7	<b>17.8</b>	4.5	<b>5.5</b>	4.6	<b>4.9</b>	4.6
Urgent care/ED visit in last 12 months due to asthma	<b>0.7</b>	0.2	<b>0.7</b>	0.2	<b>1.7</b>	1.4	<b>1.1</b>	1.5	<b>1.0</b>	1.5
<b>BEHAVIORAL HEALTH / SUBSTANCE USE</b>										
Saw a mental health provider in the last year	<b>8.9</b>	0.6	<b>8.5</b>	0.6	<b>20.3</b>	4.4	<b>11.8</b>	4.4	<b>10.9</b>	4.3
Serious psychological distress	<b>9.5</b>	0.7	<b>8.8</b>	0.7	<b>23.4</b>	3.8	<b>14.6</b>	3.6	<b>12.1</b>	3.5
Anxiety - total	<b>13.3</b>	0.7	<b>12.7</b>	0.7	<b>30.3</b>	5.4	<b>17.7</b>	5.4	<b>16.6</b>	5.2
Diagnosed & taking medication for anxiety	<b>7.7</b>	0.6	<b>7.4</b>	0.6	<b>16.4</b>	4.7	<b>9.0</b>	4.7	<b>8.5</b>	4.6
Diagnosed & not taking medication	<b>4.2</b>	0.4	<b>3.9</b>	0.4	<b>11.1</b>	3.8	<b>7.2</b>	3.8	<b>6.7</b>	3.7
Undiagnosed	<b>1.4</b>	0.2	<b>1.3</b>	0.2	<b>2.9</b>	1.9	<b>1.5</b>	1.9	<b>1.5</b>	1.8
Depression - total	<b>14.1</b>	0.8	<b>13.5</b>	0.8	<b>32.7</b>	5.3	<b>19.2</b>	5.3	<b>18.4</b>	5.2
Diagnosed & taking medication for depression	<b>7.0</b>	0.6	<b>6.7</b>	0.6	<b>15.3</b>	4.5	<b>8.5</b>	4.5	<b>8.3</b>	4.4
Diagnosed & not taking medication	<b>5.8</b>	0.5	<b>5.5</b>	0.5	<b>15.8</b>	3.9	<b>10.3</b>	3.8	<b>9.9</b>	3.8
Undiagnosed	<b>1.3</b>	0.2	<b>1.3</b>	0.2	<b>1.6</b>	1.6	<b>0.3</b>	1.6	<b>0.3</b>	1.5
Current use of any tobacco product	<b>19.8</b>	0.9	<b>19.7</b>	0.9	<b>22.1</b>	4.9	<b>2.4</b>	5.1	<b>3.1</b>	5.1
Current smoking	<b>11.9</b>	0.8	<b>11.8</b>	0.8	<b>15.0</b>	4.0	<b>3.3</b>	4.2	<b>3.5</b>	4.2
Current use of e-cigarettes	<b>4.2</b>	0.4	<b>4.1</b>	0.4	<b>6.4</b>	2.8	<b>2.3</b>	2.9	<b>2.1</b>	2.9
Heavy alcohol use	<b>30.1</b>	0.9	<b>29.9</b>	0.9	<b>39.4</b>	4.3	<b>9.5</b>	4.5	<b>7.1</b>	4.6
Alcohol abuse or dependence	<b>30.1</b>	0.9	<b>29.9</b>	0.9	<b>39.4</b>	4.3	<b>9.5</b>	4.5	<b>7.1</b>	4.6
Illicit drug use in past year	<b>18.8</b>	1.0	<b>17.6</b>	1.0	<b>44.5</b>	3.8	<b>26.9</b>	3.5	<b>24.0</b>	3.5
Illicit drug abuse or dependence	<b>1.6</b>	0.3	<b>1.5</b>	0.2	<b>3.7</b>	1.7	<b>2.2</b>	1.7	<b>1.8</b>	1.7

Topic/Measure	Total		Straight/ Heterosexual		Lesbian, Gay or Bisexual		Difference (Lesbian, Gay or Bisexual v. Straight)			
	Estimate	Margin of error	Estimate	Margin of error	Estimate	Margin of error	Un- adjusted	Margin of error	Adjust- ed†	Margin of error
<b>HEALTH SERVICES USE / ACCESS</b>										
Single service plans										
Dental insurance	58.3	1.4	58.5	1.4	56.2	6.1	-2.3	6.2	-2.2	6.1
Vision insurance	46.1	1.3	46.1	1.4	44.0	5.8	-2.2	5.9	-2.2	5.9
Health system use										
Has a "usual source" where to receive care	91.5	0.7	91.6	0.7	88.9	3.5	-2.7	3.5	-1.9	3.5
Had a wellness visit in the past 12 months	79.3	0.9	79.2	0.9	81.8	4.5	2.6	4.6	3.3	4.7
Had an urgent care / retail visit in the last year	30.8	1.1	30.7	1.1	34.9	5.5	4.2	5.6	2.9	5.6
Had 2 or more visits in the last year	12.7	0.8	12.5	0.8	16.2	4.1	3.7	4.2	3.0	4.2
Had an emergency department visit in the last year	16.0	0.8	16.1	0.8	18.3	4.6	2.3	4.6	2.0	4.7
Had 2 or more visits in the last year	5.1	0.5	5.1	0.5	6.5	3.0	1.4	3.1	1.2	3.1
Financial barriers to care										
Delayed medical care due to cost	6.9	0.5	6.7	0.5	9.9	3.5	3.2	3.5	2.8	3.5
Did not get needed care due to cost	5.1	0.5	5.0	0.5	7.4	2.8	2.4	2.9	2.1	2.9
Delayed mental health care due to cost	4.7	0.4	4.4	0.4	11.9	3.7	7.5	3.7	6.6	3.7
Did not get needed mental health care due to costs	5.1	0.5	5.0	0.5	7.4	2.8	2.4	2.9	2.1	2.9
Did not get needed mental health care due to costs	5.1	0.5	5.0	0.5	7.4	2.8	2.4	2.9	2.1	2.9
Skipped medication doses to save money	4.8	0.6	4.8	0.6	5.1	3.0	0.4	3.1	0.2	3.1
Took less medication to save money	5.1	0.6	5.1	0.6	5.5	3.2	0.5	3.3	0.3	3.3
Delayed filling a prescription to save money	7.0	0.7	6.9	0.7	9.9	4.1	3.0	4.2	2.6	4.2
Did not get need prescription due to cost	6.7	0.7	6.5	0.7	11.1	4.4	4.5	4.5	4.1	4.5
Difficulty paying medical bills	11.9	0.8	11.9	0.8	13.3	3.9	1.3	4.0	1.0	3.9
<b>HEALTH SERVICES USE / ACCESS</b>										
Received influenza vaccine in the past year	46.5	1.2	46.5	1.2	50.8	5.8	4.3	5.8	4.9	5.8
Cancer testing in the past 2 years										
Colonoscopy or sigmoidoscopy (of people aged 40-64 years)	28.7	1.4	28.9	1.5	30.2	8.9	1.4	9.0	3.0	8.4
Pap smear or HPV test (of women)	69.7	1.4	70.4	1.4	61.3	7.9	-9.0	8.0	-12.3	8.0
Mammography (of women)	74.4	1.6	74.6	1.6	68.0	12.1	-6.5	12.2	-5.1	11.6
<b>FOOD INSECURITY</b>										
Food insecure	7.7	0.6	7.7	0.6	9.2	3.5	1.6	3.5	1.0	3.6

x Sample size insufficient.

\* Measure estimated from population data (no sampling error).

† Adjusted differences are the differences between categories after controlling for age and sex in a linear regression model.

Note: For measures from the NHIS, the total population is the civilian noninstitutionalized population 25 to 64 years old who have employer sponsored insurance (ESI) coverage. For measures from the NHANES, ESI coverage could not be determined, so the total population is the civilian noninstitutionalized population 25 to 64 years old with private health insurance. For measures from the NSDUH, the total population excludes 25-year-olds (civilian noninstitutionalized population 26 to 64 years old with ESI) due to how age is categorized on the public use files. For maternal health measures, the population is women 25 and older with private insurance as the source of payment for their delivery.

Data Sources: 2019 National Health Interview Survey (NHIS); 2017-March 2020 National Health and Nutrition Examination Survey (NHANES); 2019 National Survey of Drug Use and Health (NSDUH); 2020 National Vital Statistics System (NVSS) Natality Data



# Endnotes

---

1. Summary of Findings: 2021 Employer Health Benefits Survey. KFF. (2021, November 10). <https://www.kff.org/report-section/ehbs-2021-summary-of-findings/>
2. Health Insurance Coverage of the Total Population. KFF. (2021, November 15). <https://www.kff.org/other/state-indicator/total-population/?currentTime-frame=0&sortModel=%7B%22colId%22%3A%22Location%22%2C%22sort%22%3A%22asc%22%7D>
3. “Heavy alcohol use” is defined as drinking five or more alcoholic drinks (12oz of Beer, 5oz of wine or 1.5oz of distilled spirits) on the same occasion for males or drinking four or more alcoholic drinks of the same occasion for females on each of five or more days in the past thirty days.
4. Marijuana is now legal in many states, but the survey instrument lists marijuana as an answer option for illicit drug use.
5. Gundersen, C., & Ziliak, J. P. (2015). Food insecurity and health outcomes. *Health affairs*, 34(11), 1830-1839.
6. CDC. (2022, June 9). National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP). Centers for Disease Control and Prevention. <https://www.cdc.gov/chronicdisease/index.htm>
7. Centers for Disease Control and Prevention. (2022, May 16). Diabetes and Prediabetes. Centers for Disease Control and Prevention. <https://www.cdc.gov/chronicdisease/resources/publications/factsheets/diabetes-prediabetes.htm>
8. Centers for Disease Control and Prevention. (2022, May 16). Diabetes and Prediabetes. Centers for Disease Control and Prevention. <https://www.cdc.gov/chronicdisease/resources/publications/factsheets/diabetes-prediabetes.htm>
9. Centers for Disease Control and Prevention. (2022, May 17). Adult Obesity Facts. Centers for Disease Control and Prevention. <https://www.cdc.gov/obesity/data/adult.html>
10. Hoyert DL. Maternal mortality rates in the United States, 2020. NCHS Health E-Stats. 2022. DOI: <https://dx.doi.org/10.15620/cdc:113967>.
11. Tikkanen, R., Gunja, M. Z., Fitzgerald, M., & Zephyrin, L. (2020, November 18). Maternal Mortality and Maternity Care in the United States Compared to 10 Other Developed Countries. The Commonwealth Fund. <https://www.commonwealthfund.org/publications/issue-briefs/2020/nov/maternal-mortality-maternity-care-us-compared-10-countries>
12. CDC. (2022, April 6). Working Together to Reduce Black Maternal Mortality. Centers for Disease Control and Prevention. <https://www.cdc.gov/healthequity/features/maternal-mortality/index.html>
13. A pregnancy is considered low-risk if the following conditions are met: (1) a singleton, (2) presenting head-first (3) at full term to a (4) mother under the age of 40 (5) without diabetes, hypertension, eclampsia, or pre-pregnancy obesity, (6) and with no previous pre-term births or previous cesarean deliveries.
14. “Tobacco Use” is defined in the NHIS as being an “every day” or “some day” user of cigarettes, e-cigarettes, cigars, pipes, or smokeless tobacco.
15. “Heavy alcohol use” is defined as drinking five or more alcoholic drinks (12oz of Beer, 5oz of wine, or 1.5oz of distilled spirits) on the same occasion for males or drinking four or more alcoholic drinks of the same occasion for females on each of 5 or more days in the past 30 days.
16. “Illicit drug use” is defined in the NSDUH as having used any of the following substances in the past twelve months: marijuana, cocaine, crack, heroine, hallucinogens, LSD, PCP, ecstasy, inhalants, methamphetamine, pain relievers (not as prescribed by a physician), stimulants (not as prescribed) or tranquilizers (not as prescribed).
17. KFF. (2021, December 13). Mental Health and Substance Use State Fact Sheets. KFF. <https://www.kff.org/statedata/mental-health-and-substance-use-state-fact-sheets/>
18. Institute of Medicine. 1993. Access to Health Care in America. Washington, DC: The National Academies Press. <https://doi.org/10.17226/2009>

19. Healthy People 2020.
20. Wray CM, Khare M, Keyhani S. Access to Care, Cost of Care, and Satisfaction With Care Among Adults With Private and Public Health Insurance in the US. *JAMA Network Open*. 2021;4(6):e2110275. doi:10.1001/jamanetworkopen.2021.10275
21. Medical care is not explicitly defined in the NHIS; however, the survey question follows one related to emergency room use. Therefore, respondents may be primed to answer regarding a medical need that might require use of an emergency room, urgent care center or other physician office but that they went without care because of cost.
22. Parekh, N., Ali, S. H., O'Connor, J., Tozan, Y., Jones, A. M., Capasso, A., ... & DiClemente, R. J. (2021). Food insecurity among households with children during the COVID-19 pandemic: results from a study among social media users across the United States. *Nutrition Journal*, 20(1), 1-11.
23. USDA. (2022, April 22). Definitions of Food Security. U.S. Department of Agriculture. <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/definitions-of-food-security/#:~:text=Food%20insecurity%E2%80%94the%20condition%20assessed,may%20result%20from%20food%20insecurity.>
24. Parekh, N., Ali, S. H., O'Connor, J., Tozan, Y., Jones, A. M., Capasso, A., ... & DiClemente, R. J. (2021). Food insecurity among households with children during the COVID-19 pandemic: results from a study among social media users across the United States. *Nutrition Journal*, 20(1), 1-11.
25. The Associated Press. (1997, April 28). World's Oldest Mother 'Just Wanted a Baby'. *The New York Times*. <https://www.nytimes.com/1997/04/28/us/world-s-oldest-mother-just-wanted-a-baby.html>

Morgan Health commissioned NORC at the University of Chicago to conduct this analysis. Staff from NORC's Health Care Strategy and Public Health Departments worked collaboratively to produce the analysis: Caroline Pearson, David Rein, Ph.D, Mairin Mancino, Matthew Brault, Morgan Clausen.

"JPMorgan Chase," "J.P. Morgan," "Chase," the Octagon symbol and other words or symbols in this report that identify JPMorgan Chase services are service marks of JPMorgan Chase & Co. Other words or symbols in this report that identify other parties' goods or services may be trademarks or service marks of those other parties. ©2022 JPMorgan Chase & Co. All rights reserved.

<https://www.jpmorganchase.com/about/our-business/morgan-health>