

WHITE PAPER

Giving Birth in the United States

A Study of
Commercial Claims

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Summary

In this report, FAIR Health uses its repository of over 47 billion commercial healthcare claim records and builds on its free, interactive [Cost of Giving Birth Tracker](#) to examine various aspects of giving birth in the United States, including age, co-occurring conditions, birth rate, delivery types, provider specialties and costs. The key findings include the following:

- The average age of mothers at delivery rose one percent (0.3 years) from 31.4 in 2020 to 31.7 in 2023.
- The most common potentially complicating condition¹ of pregnancy and delivery in 2023 was obesity, which occurred in 19.7 percent of deliveries.
- From 2020 to 2023, potential complications of pregnancy and delivery rose 19.8 percent. Mental health disorders in pregnant women rose 52.9 percent and substance use disorders in pregnant women increased 8.2 percent.
- Potential complications of pregnancy and delivery tended to rise with age, from 16.7 percent of patients under age 18 to 43.3 percent of patients aged 40 and over in 2023. Mental health disorders, however, were most common in mothers under age 18, and substance use disorders were most common in mothers under age 25.
- From 2020 to 2023, changes in birth rate (defined for this study as the percentage of women receiving medical services who gave birth in a given year) varied by state, from an increase of 65.6 percent in Rhode Island (from 1.8 percent of women receiving medical services in 2020 to 3.0 percent in 2023) to a decrease of 31.9 percent in West Virginia (from 3.5 percent in 2020 to 2.4 percent in 2023). Overall, the birth rate rose in 21 states and fell in 30 (for a total of 50 states plus the District of Columbia).
- Vaginal deliveries outnumbered C-sections by about two to one nationally from 2020 to 2023, with significant regional variation. Nationally, the percentage of vaginal deliveries fell 1.8 percent (1.2 percentage points) from 66.7 percent in 2020 to 65.5 percent in 2023. On a state-by-state basis, vaginal deliveries varied from 59.7 percent of deliveries in Mississippi to 76.7 percent in South Dakota.
- From 2020 to 2023, several nonphysician specialties grew in their share of claim lines in the prenatal period, including nurse practitioner (31.2 percent increase), certified nurse-midwife (32.9 percent), social worker (25.2 percent) and physician assistant (21.0 percent). Several nonphysician specialties also increased in their share of claim lines on the day of delivery, including certified registered nurse anesthetist (12.6 percent increase), certified nurse-midwife (41.2 percent) and nurse practitioner (29.6 percent).
- In each year from 2020 to 2023, the median total allowed amount for all medical services for patients with potential complications of pregnancy and delivery was 24 percent or more higher than the median total allowed amount for patients with no potential complications.² For example, the median total allowed amount in 2023 for patients with potential complications was \$20,666 compared to \$16,728 for patients with no potential complications.

¹ As used in this paper, a “potentially complicating condition” is a condition that co-occurred with pregnancy or delivery and that may have complicated them, but that could not be determined to have done so based on claims data only.

² An allowed amount is the total fee negotiated between an insurance plan and a provider for an in-network service, including both the portion to be paid by the plan member and the portion to be paid by the plan.

- Throughout the period 2020 to 2023, the median total allowed amount for all medical services for patients giving birth increased as age increased. Most notably, costs were 12 to 14 percent higher for the 40-44 age group compared to the 35-39 age group in each year from 2020 to 2023.
- The median total allowed amount for all medical services performed for women who gave birth without potential complications in 2022 ranged from 915 percent to 1,109 percent higher than the median for women who received medical services but neither gave birth nor had an abortion or ectopic pregnancy, depending on the age group, when evaluating medical services for patients during a similar time frame.

Background

There were 3.7 million births in the United States in 2022.³ Some of each year's pregnancies are considered high risk, in the sense that the mother and her fetus have a higher-than-normal chance of experiencing problems.⁴ A number of factors can make a pregnancy high risk, including maternal age, existing physical and mental health conditions, lifestyle factors such as substance use, and pregnancy complications such as gestational diabetes, preeclampsia and eclampsia.^{5,6} There is evidence that the number of women entering pregnancy with preexisting conditions and the number of women with pregnancy complications and childbirth complications have been increasing in recent years.⁷

Typical provider specialties for pregnancy and childbirth include obstetrician, family practice physician and certified nurse-midwife.⁸ While the vast majority of women in the United States give birth in hospitals, a small percentage do so out of hospitals. In 2017, 0.99 percent of births occurred at home and 0.52 percent in freestanding birth centers.⁹ Out-of-hospital births rose between 2004 and 2017: Home births increased 77 percent, while birth center births more than doubled.¹⁰

Since June 2023, FAIR Health has maintained and annually updated the [Cost of Giving Birth Tracker](#), a free, interactive tool tracking the cost of giving birth state by state.¹¹ The Tracker draws on FAIR Health's commercial healthcare claims repository—the largest such database in the nation, with over 47 billion claim records from 2002 to the present. In this report, FAIR Health uses that same repository and builds on the Cost of Giving Birth Tracker to examine various aspects of giving birth in the United States, including age, co-occurring conditions, birth rate, delivery types, provider specialties and costs.

³ "Births: Final Data for 2022," *National Vital Statistics Reports* 73, no. 2 (April 4, 2024), <https://www.cdc.gov/nchs/data/nvsr/nvsr73/nvsr73-02.pdf>.

⁴ "High-Risk Pregnancy," Yale Medicine, accessed July 11, 2024, <https://www.yalemedicine.org/conditions/high-risk-pregnancy>.

⁵ "What Are Some Factors That Make a Pregnancy High Risk?," National Institutes of Health (NIH), last reviewed May 9, 2024, <https://www.nichd.nih.gov/health/topics/high-risk/conditioninfo/factors>.

⁶ Mohsen M. A. Abdelhafez et al., "Psychiatric Illness and Pregnancy: A Literature Review," *Heliyon* 9, no. 11 (November 2023): e20958, <https://www.doi.org/10.1016/j.heliyon.2023.e20958>.

⁷ "Trends in Pregnancy and Childbirth Complications in the U.S." BlueCross BlueShield, June 17, 2020, <https://www.bcbs.com/the-health-of-america/reports/trends-in-pregnancy-and-childbirth-complications-in-the-us>.

⁸ "Choosing the Right Health Care Provider for Pregnancy and Childbirth," MedlinePlus, last reviewed November 21, 2022, <https://medlineplus.gov/ency/patientinstructions/000596.htm>.

⁹ Marian MacDorman and Eugene Declercq, "Trends and State Variations in Out-of-Hospital Births in the United States, 2004-2017," *Birth* 46, no. 2 (June 2019): 279-88, <https://www.doi.org/10.1111/birt.12411>.

¹⁰ MacDorman and Declercq, "Trends and State Variations in Out-of-Hospital Births in the United States."

¹¹ "Cost of Giving Birth Tracker," FAIR Health, accessed July 11, 2024, <https://www.fairhealth.org/fh-trackers/cost-of-giving-birth>.

Methodology

Although the 3.7 million births in the United States reported for 2022 by the Centers for Disease Control and Prevention (CDC) are based on 100 percent of the nation's birth certificates,¹² the data in this report are drawn from commercial claims and represent only a portion of the total population. The data do not include Medicaid patients, who represented 41 percent of births in the United States in 2022.¹³

Deliveries were identified in a cohort of patients in FAIR Health longitudinal claims data from January 1, 2020, to December 31, 2023, using both CPT^{®14} and ICD-10 procedure codes that appear on the claims. Claims from Medicaid and workers' compensation were excluded. An index date was established using the first date that a delivery, abortion or ectopic pregnancy appeared in FAIR Health data. Abortions could be either induced or spontaneous (miscarriage). An abortion or ectopic pregnancy taking place at a minimum of 90 days after the previous index date was treated as a new pregnancy. A delivery taking place at a minimum of 20 weeks after the previous index date was treated as a new pregnancy.¹⁵

Deliveries could be of either a live-born or stillborn infant (at 20 or more weeks of gestation). The type of delivery (C-section versus vaginal) was identified via the description of the code billed. Cases in which a patient had both types of deliveries billed on the same date were excluded on analyses comparing C-section versus vaginal births.

For purposes of this study, geography of delivery was assigned based on the servicing provider geozip that appeared most frequently on the date of delivery, if multiple geozips appeared. A geozip is a geographic region typically corresponding to the first three digits of a zip code.

To capture total costs, claims were pulled for the index date to assess delivery costs, for 40 weeks prior to the index date to assess prenatal costs and for one year after the index date to assess postpartum costs. Cost-related analyses evaluated deliveries only from July 1, 2020, to June 30, 2023. Only professional and facility claims were included in this evaluation, given that FAIR Health does not receive pharmacy claims from all data contributors.

For evaluation of costs—which were based on allowed amounts—claims with missing or zero allowed amounts, claims with an allowed amount greater than the charged amount and claims for Medicare Advantage, Medicaid, Medigap, workers' compensation and auto liability were excluded. Patients with a total allowed amount of \$0 in the prenatal, delivery or postpartum periods were excluded from the cost analyses.

To define conditions that could be potentially complicating to a pregnancy or delivery, such as obesity and diabetes (gestational or preexisting), FAIR Health consulted outside sources.¹⁶

¹² "Births: Final Data for 2022," *National Vital Statistics Reports*.

¹³ "State Health Facts—Births Financed by Medicaid," KFF, accessed August 6, 2024,

<https://www.kff.org/medicaid/state-indicator/births-financed-by-medicaid/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D/>.

¹⁴ CPT © 2023 American Medical Association (AMA). All rights reserved.

¹⁵ In the United States, the loss of a baby after 20 weeks of pregnancy is generally defined as a stillbirth, whereas it is defined as a miscarriage before that time. "About Stillbirth," CDC, accessed August 6, 2024,

<https://www.cdc.gov/stillbirth/about/index.html#:~:text=In%20the%20United%20States%2C%20a,and%2036%20weeks%20of%20pregnancy.>

¹⁶ Sources included "High-Risk Pregnancy," Cleveland Clinic, last reviewed on July 12, 2024,

<https://my.clevelandclinic.org/health/diseases/22190-high-risk-pregnancy>, and Nola Holness, "High-Risk Pregnancy," *Nursing Clinics of North America* 53, no. 2 (June 2018): 241-51, <https://www.doi.org/10.1016/j.cnur.2018.01.010>.

Limitations

The data used in this report comprise claims data for commercially insured patients who are covered by insurers and third-party administrators who voluntarily participate in FAIR Health's data contribution program. Data from Medicaid, CHIP and other state and local government insurance programs are not included, nor are data collected regarding uninsured patients.

This is an observational report based on the data FAIR Health receives from commercial payors regarding care rendered to covered patients.

The report was not subject to peer review.

Results

Age

The median age of mothers at delivery was 32 from 2020 to 2023. The average age of mothers at delivery rose one percent, or 0.3 years, from 31.4 in 2020 to 31.7 in 2023 (table 1).¹⁷

Table 1. Average age of mother at delivery, 2020-2023

Year	Average Delivery Age
2020	31.4
2021	31.6
2022	31.6
2023	31.7

In 2023, the mother’s average age at delivery varied greatly by jurisdiction, from a high of 34.7 in the District of Columbia to a low of 28.2 in Arkansas. Three of the five states with the highest average delivery age were in the Northeast (Massachusetts, New York, New Jersey; table 2). Three of the five states with the lowest average delivery age were in the South (Arkansas, Mississippi, West Virginia; table 3).

Table 2. Five states with highest average delivery age, 2023

State	Average Delivery Age
District of Columbia	34.7
Massachusetts	33.5
California	33.0
New York	32.9
New Jersey	32.9

¹⁷ The average age of mothers at delivery as reported by FAIR Health differs from the statistics reported by the CDC because FAIR Health uses data only from commercially insured patients, not from Medicaid or uninsured patients. For example, the CDC reports that the average age of mothers at first birth in 2022 was 27.4 years (“Births: Final Data for 2022,” *National Vital Statistics Reports*), and the average age across all births was 29.5 years (CDC, National Center for Health Statistics. National Vital Statistics System, Natality on CDC WONDER Online Database. accessed August 6, 2024, <http://wonder.cdc.gov/natality-expanded-current.html>).

Table 3. Five states with lowest average delivery age, 2023

State	Average Delivery Age
Arkansas	28.2
Mississippi	28.8
West Virginia	29.0
Wyoming	29.2
Idaho	29.5

The five states with the highest percentage of deliveries under age 25 in 2023 (table 4) are identical to the five states with the lowest average delivery age (table 3): Arkansas, Mississippi, West Virginia, Wyoming and Idaho. In all these states, more than 20 percent of deliveries were for mothers under age 25, whereas nationally just 9.9 percent of deliveries took place for mothers under age 25.

Table 4. Five states with the highest percentage of deliveries under age 25, 2023

State	Percent of Deliveries under Age 25
Arkansas	28.7%
Mississippi	24.5%
West Virginia	21.6%
Wyoming	21.0%
Idaho	20.5%

The five jurisdictions with the lowest percentage of deliveries under age 25 in 2023 (table 5) include four of the five with the highest average delivery age (table 2): the District of Columbia, Massachusetts, New Jersey and California.

Table 5. Five states with the lowest percentage of deliveries under age 25, 2023

State	Percent of Deliveries under Age 25
District of Columbia	2.5%
Massachusetts	2.9%
New Jersey	5.0%
Rhode Island	5.6%
California	6.1%

In jurisdictions with at least 250 deliveries, the five states with the highest percentage of deliveries at or over age 40 in 2023 (table 6) include four of the five with the highest average delivery age (table 2): the District of Columbia, California, New York and New Jersey. In all these jurisdictions, more than 7 percent of deliveries occurred at or over age 40, whereas nationally 6.2 percent of deliveries took place at or over age 40.

Table 6. Five states with the highest percentage of deliveries at or over age 40, 2023

State	Percent of Deliveries at or over Age 40
District of Columbia	12.6%
California	9.0%
New York	8.9%
New Jersey	7.8%
Vermont	7.5%

The five states with the lowest percentage of deliveries at or over age 40 in 2023 (table 7) include three of the five states with the lowest average delivery age (table 3): West Virginia, Arkansas and Wyoming. All five states with the lowest percentage of deliveries at or over age 40 (including also Kentucky and Alabama) are in the South.

Table 7. Five states with the lowest percentage of deliveries at or over age 40, 2023

State	Percent of Deliveries at or over Age 40
West Virginia	2.3%
Arkansas	2.7%
Wyoming	2.8%
Kentucky	3.0%
Alabama	3.0%

Co-occurring Conditions

A number of co-occurring conditions may complicate pregnancy or delivery.¹⁸ Based on claims data only, FAIR Health is not able to determine whether these conditions did or did not complicate the pregnancy and delivery, and therefore refers to them as “potentially complicating conditions.” The most common potentially complicating condition in 2023 was obesity (either preexisting or arising during pregnancy), which occurred in 19.7 percent of deliveries (table 8). The next most common (11.0 percent) was gestational diabetes, a form of diabetes that occurs only during pregnancy. In 2.2 percent of deliveries, preeclampsia occurred, which is gestational hypertension accompanied by excess protein in the urine.

Table 8. Common potentially complicating conditions by percent of deliveries, 2023

Condition	Percent of Deliveries
Obesity	19.7%
Gestational Diabetes	11.0%
Preexisting Hypertension	6.5%
Gestational Hypertension	6.2%
Unspecified Hypertension	5.3%
Preexisting Diabetes	2.5%
Preeclampsia	2.2%
Unspecified Diabetes	1.0%

¹⁸ See, for example, “High-Risk Pregnancy,” Cleveland Clinic, and Holness, “High-Risk Pregnancy,”

Potential complications of pregnancy and delivery rose steadily from 28.4 percent of patients in 2020 to 34.0 percent in 2023, a 19.8 percent increase (figure 1). Mental health disorders in pregnant women (either preexisting or arising during pregnancy) rose by 52.9 percent, increasing from 11.8 percent of patients in 2020 to 18.1 percent in 2023. Substance use disorders in pregnant women (either preexisting or arising during pregnancy) had a smaller increase, 8.2 percent, rising 0.2 percentage points from 2.7 percent of patients in 2020 to 2.9 percent in 2023.

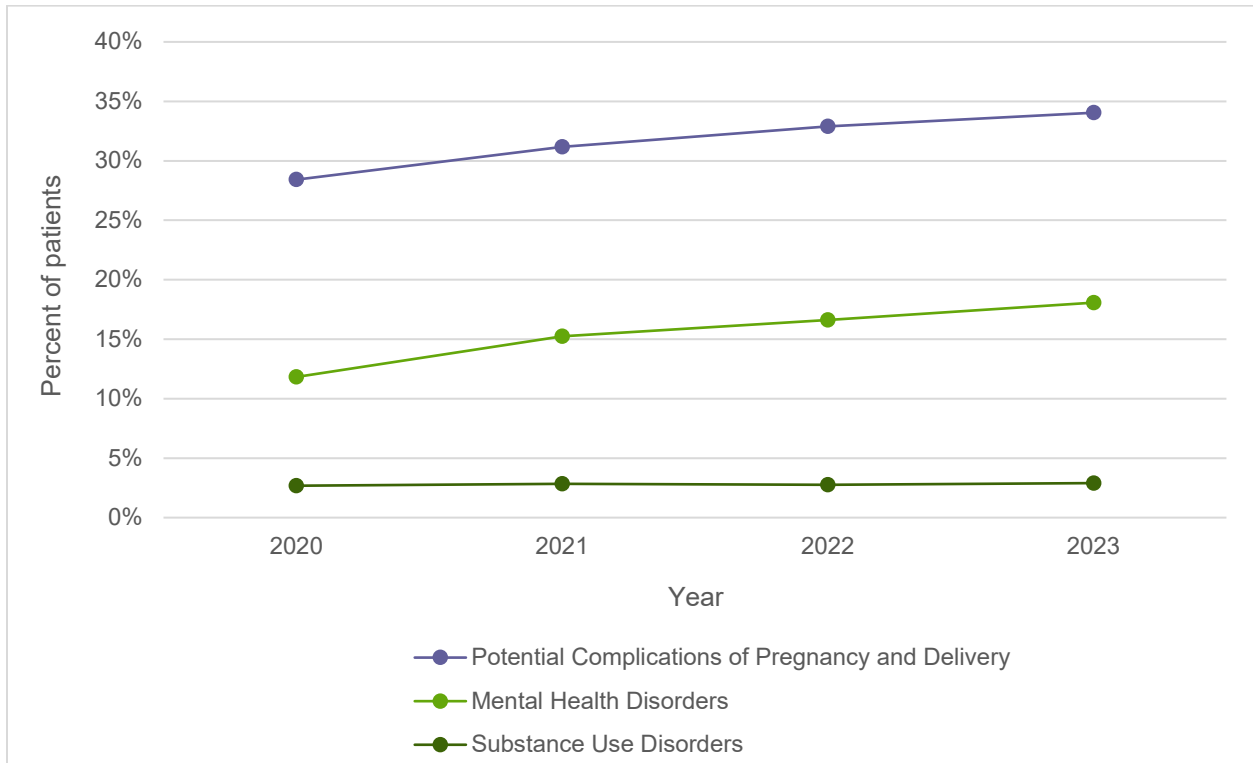


Figure 1. Potential complications of pregnancy and delivery, mental health disorders and substance use disorders, 2020-2023

Co-occurring conditions differed by age group in 2023 (table 9). Potential complications of pregnancy and delivery tended to rise with maternal age, from 16.7 percent of patients under age 18 to 43.3 percent of patients aged 40 and over. The only exception was the age group 30 to 34, which had a lower percentage (32.9 percent) of patients with complications than the age group 25 to 29 (33.5 percent).

Mental health disorders were most common in mothers under age 18 (24.1 percent). Substance use disorders were most common in mothers under age 25. In the age group under 18, 7.4 percent had substance use disorders; in the age group 18 to 24, 6.9 percent had substance use disorders. By comparison, rates of substance use disorders in age groups 25 and older ranged from 2.2 percent to 3.2 percent.

Table 9. Potential complications of pregnancy and delivery, mental health disorders and substance use disorders by delivery age group, 2023

Delivery Age Group	Potential Complications of Pregnancy and Delivery	Mental Health Disorders	Substance Use Disorders
Under 18	16.7%	24.1%	7.4%
18 to 24	29.4%	17.6%	6.9%
25 to 29	33.5%	16.8%	3.2%
30 to 34	32.9%	18.2%	2.2%
35 to 39	36.1%	19.1%	2.2%
40 and over	43.3%	18.9%	2.4%

Birth Rate

Birth rate is usually calculated as the number of live births per thousand of population per year. For purposes of this study, FAIR Health calculated it as the percentage of women aged 15-50 receiving medical services who gave birth in a given year. The birth rate by that definition was 3.51 percent nationally in 2020; it fell to 3.48 percent in 2023, a decrease of 0.68 percent. Overall, the birth rate rose in 21 states and fell in 30 (for a total of 50 states plus the District of Columbia).

Among states with at least 250 births, the change in birth rate from 2020 to 2023 varied from an increase of 65.6 percent in Rhode Island to a decrease of 31.9 percent in West Virginia. The states with the largest increases are shown in table 10, and those with the largest decreases in table 11. The largest decreases tended to be in states with more rural areas, such as West Virginia, North Dakota and Arkansas, the three states with the largest decreases. This is in keeping with evidence by other researchers of falling birth rates and lack of delivery services in rural areas.¹⁹ However, the state with the second largest increase in birth rate, Vermont, is considered the nation's most rural state.²⁰ Notably, the states with the largest decreases include Utah, which had the largest birth rate in both 2020 (5.0 percent) and 2023 (4.6 percent).

Table 10. Ten states with the largest increase in birth rate, 2020-2023

State	2020	2023	Increase
Rhode Island	1.8%	3.0%	65.6%
Vermont	2.6%	4.0%	51.5%
District of Columbia	2.9%	4.1%	43.3%
South Carolina	3.1%	3.3%	8.1%
Maine	3.4%	3.7%	8.1%
Idaho	3.9%	4.1%	7.0%
Texas	3.3%	3.5%	5.7%
Florida	3.2%	3.3%	5.4%
New Hampshire	3.3%	3.5%	4.0%
Nevada	3.6%	3.7%	3.7%

¹⁹ Tony Leys, "As a Baby Bust Hits Rural Areas, Hospital Labor and Delivery Wards Are Closing Down," NPR, July 15, 2024, <https://www.npr.org/sections/shots-health-news/2024/07/12/nx-s1-5036878/rural-hospitals-labor-delivery-health-care-shortage-birth>.

²⁰ "Nation's Urban and Rural Populations Shift following 2020 Census," US Census Bureau, press release, December 29, 2022, <https://www.census.gov/newsroom/press-releases/2022/urban-rural-populations.html>.

Table 11. Ten states with the largest decrease in birth rate, 2020-2023

State	2020	2023	Decrease
West Virginia	3.5%	2.4%	-31.9%
North Dakota	4.6%	3.8%	-18.9%
Arkansas	4.1%	3.6%	-11.4%
Connecticut	3.8%	3.4%	-10.7%
Minnesota	4.1%	3.7%	-9.9%
Delaware	4.5%	4.1%	-9.2%
Nebraska	4.4%	4.0%	-9.2%
Alabama	3.2%	2.9%	-8.9%
New Mexico	3.2%	2.9%	-7.6%
Utah	5.0%	4.6%	-7.0%

Figure 2 shows the percentage of women receiving medical services who gave birth by age in 2020 and 2023. The two years were similar, although there was a slight shift toward higher percentages in the older ages in 2023. Women aged 32 had the highest percentage giving birth in both 2020 (9.1 percent) and 2023 (8.9 percent). As noted above, this was also the median age to give birth in both years.



Figure 2. Percent of women receiving medical services who gave birth, by age, 2020 and 2023

Delivery Types

Vaginal deliveries outnumbered C-sections by about two to one nationally from 2020 to 2023 (table 12). The percentage of C-sections rose 3.6 percent from 33.3 percent in 2020 to 34.5 percent in 2023. The percentage of vaginal deliveries fell 1.8 percent from 66.7 percent in 2020 to 65.5 percent in 2023.

Table 12. C-sections versus vaginal deliveries, 2020 to 2023

Delivery Type	2020	2021	2022	2023
C-section	33.3%	33.7%	34.1%	34.5%
Vaginal Delivery	66.7%	66.3%	65.9%	65.5%

The percentage of vaginal deliveries varied from state to state in 2023, from a high of 76.7 percent in South Dakota to a low of 59.7 percent in Mississippi. Figure 3 shows the variation among states with at least 250 births. The variation is consistent with prior research on the prevalence of C-sections by state, showing noteworthy differences among regions, especially in the South.²¹

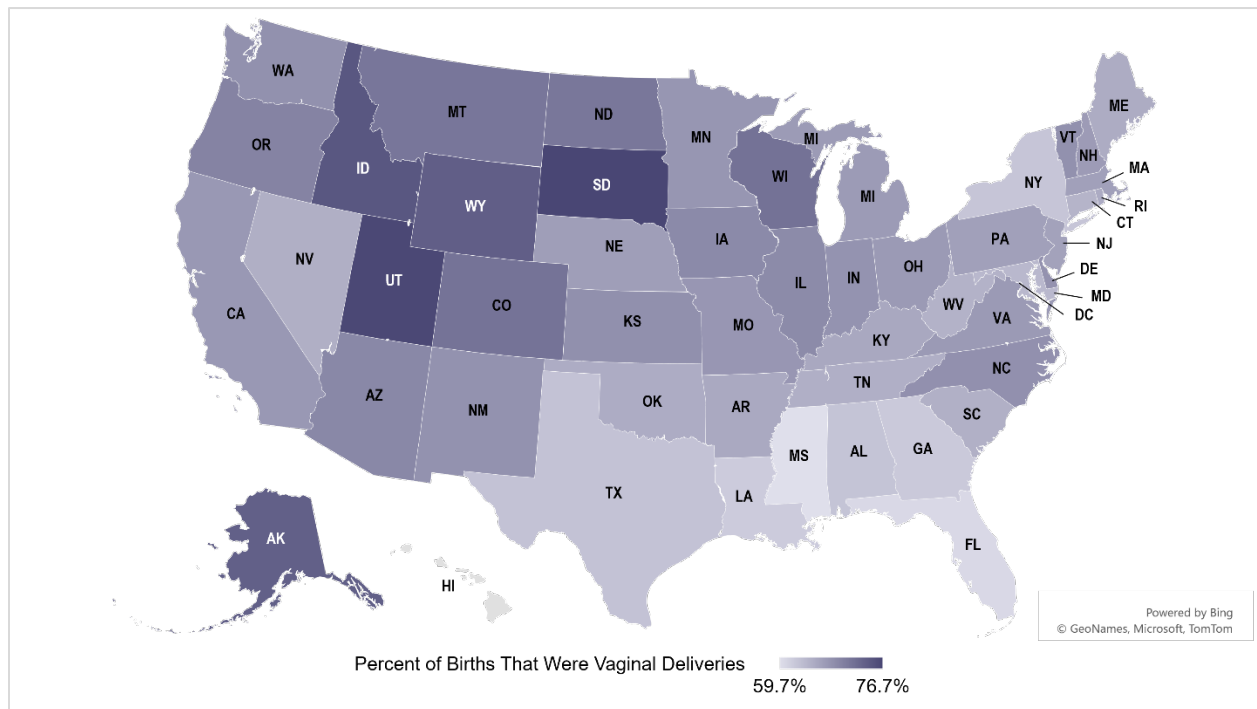


Figure 3. Percent of births that were vaginal deliveries by state, 2023

²¹ “Cesarean Delivery Rate by State,” CDC National Center for Health Statistics, last reviewed February 25, 2022, https://www.cdc.gov/nchs/pressroom/sosmap/cesarean_births/cesareans.htm.

In 2023, the states that had the highest percentage of vaginal deliveries among states with at least 250 deliveries were South Dakota, Utah, Idaho, Wyoming and Alaska (table 13).

Table 13. States with the highest percentage of vaginal deliveries, 2023

State	Percent of Births That Were Vaginal Deliveries
South Dakota	76.7%
Utah	76.5%
Idaho	74.9%
Wyoming	74.0%
Alaska	73.8%

In 2023, the jurisdictions with the lowest percentage of vaginal deliveries were Mississippi, Florida, Louisiana, the District of Columbia and Georgia (table 14).

Table 14. States with the lowest percentage of vaginal deliveries, 2023

State	Percent of Births That Were Vaginal Deliveries
Mississippi	59.7%
Florida	60.5%
Louisiana	61.9%
District of Columbia	62.0%
Georgia	62.1%

Specialties

Table 15 shows the most common provider specialties by percent of claim lines in the prenatal period (i.e., the 40-week period before delivery for women who delivered) from 2020 to 2023. The leading specialty in all four years was obstetrics and gynecology, with 35.77 percent of claim lines in 2023. This specialty, however, showed little growth during the period, increasing by 0.9 percent from 2020 to 2023. Several nonphysician specialties (highlighted in green) showed more growth, including nurse practitioner, which increased 31.2 percent; certified nurse-midwife, which rose 32.9 percent; social worker, which increased 25.2 percent; and physician assistant, which grew 21.0 percent. The trend toward more nonphysicians treating patients in the prenatal period is consistent with trends in mental health treatment²² and primary care²³ examined in earlier FAIR Health studies.

Table 15. Most common specialties by percent of claim lines in the prenatal period, 2020-2023

Description	2020	2021	2022	2023	Change
Obstetrics and Gynecology	35.46%	33.24%	34.06%	35.77%	0.9%
Maternal Fetal Medicine	12.96%	12.96%	12.93%	15.18%	17.2%
Pathology	7.94%	8.32%	8.26%	7.95%	0.2%
Nurse Practitioner	3.16%	3.83%	4.12%	4.14%	31.2%
Chiropractic	4.10%	4.20%	4.02%	3.90%	-4.8%
Family Practice	4.27%	4.32%	4.01%	3.34%	-21.7%
Radiology	3.09%	2.98%	2.92%	2.77%	-10.3%
Certified Nurse-Midwife	1.90%	1.97%	2.18%	2.53%	32.9%
Internal Medicine	2.54%	2.65%	2.41%	2.14%	-15.7%
Physical Medicine and Rehabilitation	1.39%	1.69%	1.80%	1.93%	39.0%
Pharmacy	2.52%	2.41%	2.25%	1.83%	-27.3%
Social Worker	1.39%	1.61%	1.79%	1.75%	25.2%
Infertility	3.71%	3.65%	3.37%	1.73%	-53.2%
Specialist	2.50%	2.16%	1.96%	1.69%	-32.4%
Emergency Medicine	1.63%	1.81%	1.76%	1.46%	-10.4%
Physician Assistant	1.03%	1.18%	1.32%	1.24%	21.0%

²² FAIR Health, *Trends in Mental Health Conditions: An Analysis of Private Healthcare Claims*, A FAIR Health White Paper, April 29, 2024, <https://s3.amazonaws.com/media2.fairhealth.org/whitepaper/asset/Trends%20in%20Mental%20Health%20Conditions%20-%20FAIR%20Health%20White%20Paper.pdf>.

²³ FAIR Health, *A Window into Primary Care: An Analysis of Private Healthcare Claims*, A FAIR Health White Paper, March 15, 2023, <https://s3.amazonaws.com/media2.fairhealth.org/whitepaper/asset/A%20Window%20into%20Primary%20Care%20-%20FAIR%20Health%20White%20Paper.pdf>.

Table 16 shows the most common specialties by percent of claim lines on the day of delivery for women who delivered, in the period from 2020 to 2023. As with specialties in the prenatal period (table 15), several nonphysician specialties (highlighted in green) showed considerable growth from 2020 to 2023, including certified registered nurse anesthetist (12.6 percent increase), certified nurse-midwife (41.2 percent) and nurse practitioner (29.6 percent).

Table 16. Most common specialties by percent of claim lines on the day of delivery, 2020-2023

Description	2020	2021	2022	2023	Change
Obstetrics and Gynecology	29.63%	29.48%	30.88%	31.68%	6.9%
Pathology	31.07%	31.98%	31.70%	31.51%	1.4%
Anesthesiology	9.91%	9.17%	9.03%	8.36%	-15.7%
Maternal Fetal Medicine	3.93%	4.07%	4.09%	4.31%	9.6%
Certified Registered Nurse Anesthetist	2.63%	2.63%	2.87%	2.96%	12.6%
Certified Nurse-Midwife	1.65%	1.81%	2.06%	2.33%	41.2%
Radiology	1.55%	1.59%	1.50%	1.63%	5.1%
Family Practice	1.84%	1.70%	1.62%	1.54%	-16.3%
Specialist	1.77%	1.69%	1.54%	1.33%	-25.0%
Internal Medicine	1.38%	1.37%	1.11%	1.00%	-27.5%
Nurse Practitioner	0.75%	0.83%	0.92%	0.98%	29.6%

In 2020, 6.1 percent of births nationally were attended by a certified nurse-midwife (CNM). In 2023, that share rose to 8.3 percent of births, a 35.5 percent increase. The five states in 2023 with the highest percentage of births attended by a CNM were New Hampshire, New Mexico, Rhode Island, Oregon and Vermont (table 17). Notably, these are all states whose scope of practice laws allow CNMs to practice independently.²⁴

Table 17. Five states with the highest percentage of births attended by a certified nurse-midwife, 2023

State	Percent of Births Attended by Certified Nurse-Midwife
New Hampshire	28.6%
New Mexico	26.2%
Rhode Island	26.1%
Oregon	25.7%
Vermont	24.8%

The change in percent of births attended by a CNM from 2020 to 2023 varied from state to state. Table 18 shows the five states with the largest increase in that period. Table 19 shows the only states with at least 250 deliveries that had a decrease in that period.

Table 18. Five states with the largest increase in percent of births attended by a certified nurse-midwife, 2020-2023

State	2020	2023	Increase
Louisiana	0.6%	2.3%	273.3%
Arkansas	0.5%	1.5%	218.2%
Tennessee	4.4%	11.0%	148.0%
Virginia	5.3%	11.1%	109.6%
South Carolina	2.7%	5.4%	102.0%

²⁴ “State Practice Environment for Certified Nurse-Midwives June 2023,” American College of Nurse Midwives, accessed August 12, 2024, <https://www.midwife.org/acnm/files/cclibraryfiles/filename/000000008950/State%20Practice%20Environment%20for%20Certified%20Nurse-Midwives%20-%20Updated%20June%202023.png>.

Table 19. States with a decrease in percent of births attended by a certified nurse-midwife, 2020-2023

State	2020	2023	Decrease
District of Columbia	11.1%	6.9%	-38.1%
Alabama	1.6%	1.0%	-35.6%
North Dakota	10.8%	10.0%	-7.5%
Alaska	23.9%	23.5%	-1.7%

Costs

The overall, national, median allowed amount for patients giving birth—including all medical services during the prenatal period (40 weeks), the day of delivery and one year postpartum—rose steadily, from \$15,784 in 2020 to \$17,990 in 2023, a 14.0 percent increase (figure 4). Delivery by C-section was more expensive throughout the period, increasing 14.1 percent, from \$18,708 in 2020 to \$21,340 in 2023. Vaginal delivery was less expensive than either C-section or the overall rate, rising 13.3 percent, from \$14,550 in 2020 to \$16,490 in 2023.²⁵

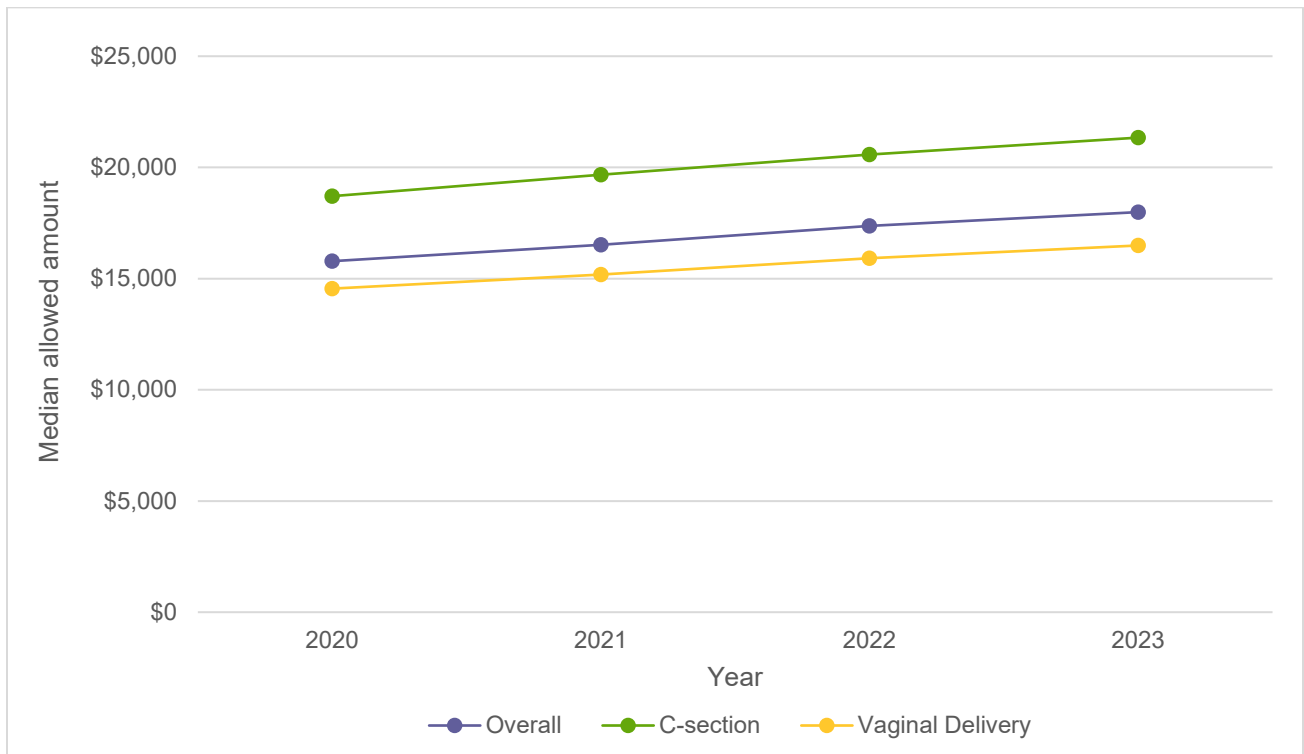


Figure 4. National, median allowed amount for patients giving birth by delivery type, 2020-2023

²⁵ The median allowed amounts in this paper differ from those in the Cost of Giving Birth Tracker because of differences in methodology. For example, the Cost of Giving Birth Tracker focuses on uncomplicated pregnancies, while this paper also includes complicated pregnancies and potentially complicated pregnancies.

Table 20 compares the national, median, total allowed amount for all patients giving birth with no potential complications of pregnancy and delivery to those giving birth with potential complications from 2020 to 2023. In each year, potential complications added 24 percent or more in costs; for example, the median total allowed amount in 2023 for patients with potential complications was \$20,666 compared to \$16,728 for patients with no potential complications. The costs for patients with no potential complications, however, increased more (13.5 percent) from 2020 to 2023 than did the costs for patients with potential complications (12.6 percent).

Table 20 also shows the national, median, total allowed amount from 2020 to 2023 for patients with preexisting diabetes, which was the most expensive of the potential complications. In 2023, the median total allowed amount for patients with preexisting diabetes was \$25,853 compared to \$16,728 for patients with no potential complications. Costs for patients with preexisting diabetes rose 7.0 percent from 2020 to 2023.

Table 20. National, median, total allowed amount for patients giving birth with no potential complications of pregnancy and delivery compared to those with potential complications and those with preexisting diabetes, 2020-2023

Year	No Potential Complications of Pregnancy and Delivery	Potential Complications of Pregnancy and Delivery	Preexisting Diabetes
2020	\$14,734	\$18,359	\$24,151
2021	\$15,393	\$19,187	\$25,417
2022	\$16,122	\$20,018	\$26,068
2023	\$16,728	\$20,666	\$25,853

Throughout the period 2020 to 2023, the median total allowed amount for all medical services for patients giving birth increased as age increased (figure 5). Most notably, costs were 12 to 14 percent higher for the 40-44 age group compared to the 35-39 age group in each year from 2020 to 2023.

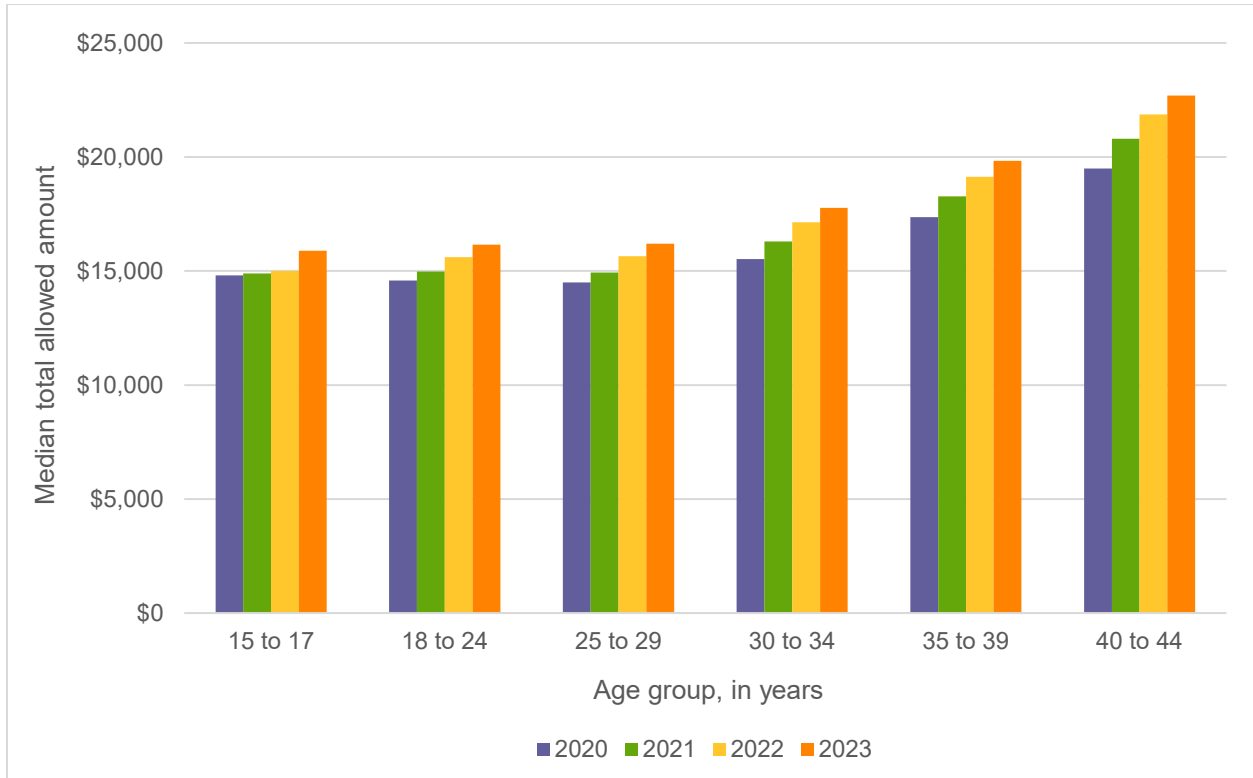


Figure 5. Median total allowed amount for patients giving birth by age group, 2020-2023

Figure 6 compares the median total allowed amount for women giving birth without potential complications in 2022 to women who neither gave birth nor had an abortion or ectopic pregnancy, but who had at least one medical service from January 1, 2022, to September 30, 2023. Both cohorts ranged in age from 15 to 44. Giving birth without potential complications added from 915 percent to 1,109 percent in costs, depending on the age group. The largest percent increase in cost (1,109 percent) was in the age group 25 to 29, in which the cost for women giving birth without potential complications was \$14,554, and for women who did not give birth it was \$1,204.

Birthing patients with potential complications had higher costs compared with their counterparts who did not give birth, ranging from 1,129 percent to 1,530 percent higher, depending on the age group. The largest percent increase in cost (1,530 percent) was in the age group 15 to 17, for which the cost for patients giving birth with potential complications was \$19,640, compared to \$1,205 for those who did not give birth.

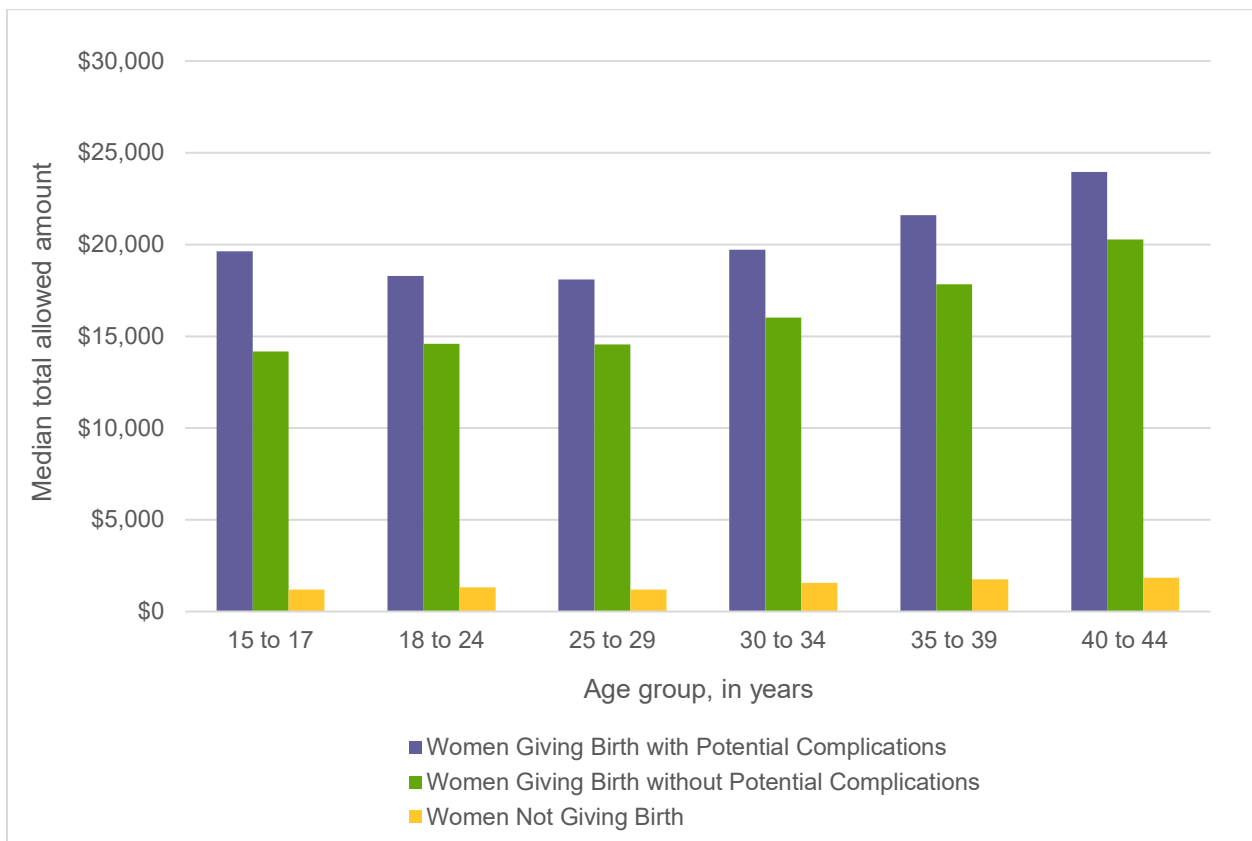


Figure 6. Median total allowed amount for women giving birth without potential complications (2022) compared to women giving birth with potential complications (2022) and women not giving birth (2022-2023), by age group

Conclusion

This study of giving birth in the period from 2020 to 2023 makes several noteworthy findings. The average age of mothers at delivery rose one percent in this period, to 31.7. The most common potentially complicating condition of pregnancy and delivery in 2023 was obesity. From 2020 to 2023, potential complications of pregnancy and delivery, mental health disorders in pregnant women and substance use disorders in pregnant women all increased. Potential complications of pregnancy and delivery tended to rise with age, but mental health disorders were most common in mothers under age 18, and substance use disorders were most common in mothers under age 25.

From 2020 to 2023, changes in birth rate varied by state. Overall, the birth rate rose in 21 states and fell in 30. Vaginal deliveries outnumbered C-sections by about two to one nationally throughout the period. Several nonphysician specialties grew in their share of claim lines in the prenatal period, including nurse practitioner, certified nurse-midwife, social worker and physician assistant. Several nonphysician specialties also increased in their share of claim lines on the day of delivery, including certified registered nurse anesthetist, certified nurse-midwife and nurse practitioner.

In each year from 2020 to 2023, potential complications of pregnancy and delivery added 24 percent or more in median total allowed amount for all services rendered. Throughout the period, the median total allowed amount for all medical services for patients giving birth increased as age increased. In a comparison of women who gave birth without potential complications in 2022 to women who did not give birth, giving birth without potential complications added from 915 percent to 1,109 percent in median total allowed amount for all services rendered, depending on the age group.

The findings in this report have implications for stakeholders across the healthcare spectrum, especially women who are pregnant or in the postpartum period. The study is also important for the providers who care for these patients, as well as payors and policy makers. In addition, FAIR Health hopes that these findings will be starting points for further research on giving birth in the United States.

About FAIR Health

FAIR Health is a national, independent nonprofit organization dedicated to bringing transparency to healthcare costs and health insurance information through data products, consumer resources and health systems research support. FAIR Health qualifies as a public charity under section 501(c)(3) of the federal tax code. FAIR Health possesses the nation's largest collection of private healthcare claims data, which includes over 47 billion claim records and is growing at a rate of over 3 billion claim records a year. FAIR Health licenses its privately billed data and data products—including benchmark modules, data visualizations, custom analytics and market indices—to commercial insurers and self-insurers, employers, providers, hospitals and healthcare systems, government agencies, researchers and others. Certified by the Centers for Medicare & Medicaid Services (CMS) as a national Qualified Entity, FAIR Health also receives data representing the experience of all individuals enrolled in traditional Medicare Parts A, B and D, which accounts for a separate collection of over 48 billion claim records; FAIR Health includes among the private claims data in its database, data on Medicare Advantage enrollees. FAIR Health can produce insightful analytic reports and data products based on combined Medicare and commercial claims data for government, providers, payors and other authorized users. FAIR Health's free, award-winning, national consumer websites are fairhealthconsumer.org and fairhealthconsumidor.org. For more information on FAIR Health, visit fairhealth.org.

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