FH® Healthcare Indicators and FH® Medical Price Index 2021

An Annual View of Place of Service Trends and Medical Pricing

A FAIR Health White Paper, March 31, 2021
Summary

This is the fourth annual edition of FH® Healthcare Indicators and FH® Medical Price Index, two measures developed by FAIR Health to provide clarity in a rapidly changing healthcare environment. Drawing on the independent nonprofit’s national database of billions of privately insured healthcare claims—the largest in the country—these two measures apply different approaches to illuminate different aspects of the national healthcare sector, including, among other factors, trends in the place of service and billed and allowed amounts for professional services.

FH Healthcare Indicators analyze trends involving the place of service, or setting (e.g., office, inpatient hospital, retail clinic, urgent care center, telehealth, ambulatory surgery center [ASC] and emergency room [ER]), for healthcare in recent years. Focusing on alternative places of service—retail clinics, urgent care centers, telehealth and ASCs—as well as ERs, FH Healthcare Indicators evaluate changes in utilization, geographic and demographic factors, diagnoses, procedures and costs. In the new edition, all time frames shift forward one year from the previous edition. For example, if a chart last year showed usage trends from 2013 to 2018, this year’s chart shows 2014 to 2019. It does not show changes that occurred in 2020 as a result of the COVID-19 pandemic; those will be apparent in next year’s edition. Here are some of the key findings from the period ending in 2019:

- In all places of service studied for change in utilization, utilization increased from 2018 to 2019. The greatest rate of growth was for telehealth (73 percent), followed by urgent care centers (47 percent), retail clinics (39 percent), ERs (33 percent) and ASCs (30 percent).
- Among the places of service studied, ERs continued to hold the highest percentage of medical claim lines in 2019, with 2.94 percent of all medical claim lines nationally. The comparable percentages for the other places of service were 1.56 percent for urgent care centers, 1.04 percent for ASCs, 0.22 percent for telehealth and 0.05 percent for retail clinics.
- In telehealth in 2019, males accounted for more claim lines than females in one adult age group: 71-80 years. The distribution in that age group was 55 percent male, 45 percent female. It was the first time in four years of tracking (2016-2019) that an adult age group had more claim lines submitted for men than women in any of the places of service in which FAIR Health studied gender-related patterns—retail clinics, urgent care centers, telehealth, ASCs and ERs.
- In retail clinics, urgent care centers and telehealth, the 31-40 age group had the greatest share of claim lines in 2019. But in ERs, it was the 51-60 age group.
- In 2019, West Virginia had the highest percentage of any state of retail clinic claim lines as a percentage of all medical claim lines. This was a change from previous years studied by FAIR Health, when Minnesota held that position.
- The most common diagnostic category in 2019 in retail clinics and urgent care centers was acute respiratory diseases and infections. But in telehealth it was mental health conditions, and among individuals over 22 years of age in the ER, it was digestive system issues.
- In 2019, the median charge amount for a 30-minute new patient office visit (CPT® 99203) ranged from $150 in a retail clinic to $217 in an office to $239 in an urgent care center.

FH Medical Price Index tracks the weighted average growth in median procedure charges and median imputed allowed amounts2 in six procedure categories. This report does not consider facility fees. The categories are:

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1 CPT © 2020 American Medical Association (AMA). All rights reserved.
2 Because payors’ contracted network rates are proprietary and cannot be shared, FAIR Health employs an imputation methodology to determine benchmarks for allowed amounts. First, FAIR Health calculates the ratios of actual allowed amounts to charges for groups of procedure codes on a regional basis. The resulting ratios are applied to the actual charges for each specific procedure at the local (geozip) level to develop an “imputed” allowed amount for each claim line.
• Professional evaluation and management (E&M; excluding E&Ms performed in a hospital setting);
• Hospital E&M (excluding E&Ms performed in a professional setting, such as typical office visits);
• Medicine (excluding E&Ms);
• Surgery (procedures for which the physician would bill);
• Pathology and laboratory (including both technical and professional components, i.e., both
equipment and professional services); and
• Radiology (including both technical and professional components).

May 2012 is the base month, to which values in later periods are compared; therefore, FH Medical Price
Index establishes a consistent point of reference that makes it easy to identify and compare shifts.

In the first edition, FH Medical Price Index presented an overview from May 2012 to May 2017, which was
extended in the second edition to November 2018, and in the third to November 2019. In the new edition,
the indices are extended to November 2020. Findings include the following, all for the period November
2019 to November 2020:

• Of the six procedure categories, hospital E&Ms had the greatest percent increase in charge
amount index, 6 percent, and in allowed amount index, 10 percent.
• The radiology charge amount index decreased one percent, the only decrease in either charge
amount or allowed amount indices.
• Radiology had the lowest percent increase in allowed amount index, three percent.
• The professional E&M charge amount index grew three percent and allowed amount index five
percent.
• The medicine charge amount index grew one percent and allowed amount index nine percent.
• The surgery charge amount index increased three percent and allowed amount index seven
percent.
• The pathology and laboratory charge amount index increased five percent and allowed amount
index four percent.

**Background**

In a white paper in March 2018, FAIR Health launched two new measures of healthcare information: FH®
Healthcare Indicators and FH® Medical Price Index.3 Designed to provide clarity in a rapidly changing
healthcare environment, these two measures for deriving insights from data elicited a welcome public
response; stakeholders expressed appreciation for being offered this “macro” view into the nation’s
healthcare system. From the start, the measures were intended to be released annually to reflect ongoing
changes. In the last two years, FAIR Health released the second4 and third5 annual editions, and this is
the fourth.

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3 FAIR Health, FH® Healthcare Indicators and FH® Medical Price Index: A New View of Place of Service Trends and
Medical Pricing, A FAIR Health White Paper, March 2018,
H%20Healthcare%20Indicators--whitepaper.pdf.

4 FAIR Health, FH® Healthcare Indicators and FH® Medical Price Index 2019: An Annual View of Place of Service
Trends and Medical Pricing, A FAIR Health White Paper, April 2019,

5 FAIR Health, FH® Healthcare Indicators and FH® Medical Price Index 2020: An Annual View of Place of Service
Trends and Medical Pricing, A FAIR Health White Paper, March 2020,
Since the first edition, the healthcare sector has continued to evolve and grow more complex. Healthcare stakeholders continue to need information that will enable them to discern fundamental trends and patterns, and to make decisions on that basis. FH Healthcare Indicators and FH Medical Price Index are intended to serve all such constituents, including insurers and companies that self-insure, third-party administrators, hospitals and health systems, physicians and other individual providers, pharmaceutical and device manufacturers, federal and state government officials, legislators, policy makers, economists and academic researchers.

Both FH Healthcare Indicators and FH Medical Price Index use the same data source: FAIR Health’s database of over 32 billion claim records, which is growing at a rate of over 2 billion claim records a year. The data are contributed by payors and administrators who insure or process claims for private insurance plans. A national, independent nonprofit organization, FAIR Health uses this repository—the nation’s largest collection of private healthcare claims data—in furtherance of its mission of bringing transparency and integrity to healthcare costs and health insurance information.

Like previous releases, this year’s edition of FH Healthcare Indicators and FH Medical Price Index is intended to assist healthcare stakeholders in a variety of ways. For example, health systems can use the information in budgeting and considering affiliations or market expansion; insurers in designing plan benefits and provider networks, informing reimbursement policies and setting premiums; government agencies and policy makers in framing public health campaigns and responses, and setting courses to benefit the public good; investors in researching the healthcare sector; and economists and researchers in seeking to track and evaluate important trends.

In this edition, as in previous editions, FH Healthcare Indicators and FH Medical Price Index each advance one year in the data they report: FH Healthcare Indicators to 2019 and FH Medical Price Index to 2020. For this reason, FH Healthcare Indicators do not include data from the COVID-19 pandemic year (next year’s edition will extend to 2020), whereas FH Medical Price Index does. Indeed, this year’s FH Healthcare Indicators present a valuable picture of the nation’s healthcare environment just before COVID-19 arrived in the United States, while FH Medical Price Index offers an account of healthcare pricing trends in the midst of the pandemic.

Methodology

For this study, FAIR Health used its repository of private claims data, which includes data on commercially insured and Medicare Advantage (Medicare Part C) enrollees, but not that of uninsured individuals or those on Medicaid or on Medicare Parts A, B and D.6

FH Healthcare Indicators Methodology

To segregate FAIR Health claims data into venues of care, FAIR Health used standard Centers for Medicare & Medicaid Services (CMS) place of service codes to identify retail clinics (CMS place of service 17), urgent care centers (CMS place of service 20) and office (CMS place of service 11). Other methodologies were used to identify ERs (e.g., CMS place of service 23, bill type of 131 and/or an emergency department visit CPT code [CPTs 99281 through 99285]); telehealth (telehealth CPT codes such as CPT 99441 or telehealth modifiers such as GQ); and ASCs (bill type of 83* or CMS place of service 24).

6 It should be noted that FAIR Health also receives data for traditional Medicare Parts A, B and D under the Centers for Medicare & Medicaid Services Qualified Entity Program, but those data are not a source for this report.
The data were then aggregated by a variety of key fields, including state, urban/rural, diagnostic categories (e.g., urinary tract infection, ear infection, acute respiratory infection), year of service and patient demographics (age and gender), to identify trends and patterns in utilization and variation in cost. Diagnostic categories were consolidated from the International Classification of Diseases–Clinical Modification (ICD-CM) into clinically relevant groups to make them consumer-friendly. The data were evaluated with single and multiple variables to look for distinct trends and associations, which were then used to create graphical representations of the information.

In the graphical representations, the term "claim lines" refers to the individual procedures listed on insurance claims. A single claim for one patient may have multiple claim lines, with each line reflecting a separate procedure. To normalize the data and avoid fluctuations due to natural changes within plan data (e.g., the closing of a major employer and the loss of those members, or the addition of a major employer to a plan from which FAIR Health receives data, which would create a net influx of data from those members), FAIR Health calculates each data point as a percentage of the total number of medical claim lines for each year. When evaluating rural or urban data for a place of service, the denominator is all medical claim lines within that year and region. When evaluating total national data for a place of service, the entirety of medical claim lines for that year is the denominator. Once this claim line percentage is established, FAIR Health creates two separate types of trend charts.

“Percent of claim lines” is the percentage of all normalized claim line percentages as described above associated with a given grouping (e.g., a place of service) in a given time period in a particular chart. For example, in figure 1, which shows normalized claim line shares with retail clinic usage by rural, urban and national settings from 2014 to 2019, each year's data point for national usage is the percentage share of all the normalized claim lines in the national usage grouping from 2014 to 2019. If one were to add up all the data points for national usage from all the years in this period, they would total 100 percent.

Other graphs present “percent of all medical claim lines.” In this case, the number of claim lines for the place of service being evaluated in a particular location (state, rural, urban or national) in a particular year is presented as a percentage of all claim lines within the FAIR Health database that are designated as medical claim lines (not including dental or pharmacy claim lines) in that location in that year. For example, in figure 2, rural retail clinic claim lines in 2014 are shown as a percentage of all rural medical claim lines in that year.

**FH Medical Price Index Methodology**

FAIR Health used two of its benchmark products, FH® Medical and FH® Allowed Medical, to calculate, respectively, charge amounts and allowed amounts for FH Medical Price Index. For each procedure code, the benchmark products (modules containing cost data based on recent claims) include a median value, which is the dollar value used for all codes included in the indices. For the 2020 indices, 18 releases of the benchmark products were used to establish the price component of the indices: May and November of each year from 2012 to 2020. The total frequency across the entire time period for each procedure code within the selected categories (professional E&M, hospital E&M, medicine, surgery, pathology and laboratory, and radiology) was used to select codes for inclusion or exclusion. Each procedure code that had a total combined frequency of one million or more occurrences in the last 11 module releases was included in the indices. This allowed for natural inclusion of new codes and eventual exclusion of deleted codes in a gradual and controlled manner so as not to create erroneous fluctuations.

Once the list of codes to be included in the 2020 indices was established, the median charge or allowed amount for each code in each release was used as the price and multiplied by the corresponding frequency for that code for the 18 releases, producing the release code median total. Then, all release code median totals in a category were summed to get a total dollar value for each release in that category (the release median total). That release median total was divided by the total frequency to generate a
release average median. Each index was then created by using the following index formula: dividing each release average median for each month and year by the first release average median established (May 2012, the base):

\[
\frac{\text{Release Weighted Average of Median}_{\text{MONTH YEAR}}}{\text{Release Weighted Average of Median}_{\text{BASE}}} = \text{Index Value}_{\text{MONTH YEAR}}
\]

The table below provides a sample calculation of how an FH Medical Price Index value is derived.

Table. Calculation of FH Medical Price Index for professional E&M charge amounts over a sample of the period May 2012-November 2020

<table>
<thead>
<tr>
<th>Release</th>
<th>Release Median Total</th>
<th>Total Frequency</th>
<th>Release Median Total/Total Frequency = Release Average Median</th>
<th>Index Formula</th>
<th>FH Medical Price Index Value</th>
</tr>
</thead>
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<td>May 2012</td>
<td>$280,020,108,863</td>
<td>2,013,522,941</td>
<td>$139.07 (base)</td>
<td>( \frac{139.07}{139.07} )</td>
<td>1.00</td>
</tr>
<tr>
<td>Nov 2020</td>
<td>$503,714,036,046</td>
<td>2,615,247,477</td>
<td>$192.61</td>
<td>( \frac{192.61}{139.07} )</td>
<td>1.38</td>
</tr>
</tbody>
</table>
FH Healthcare Indicators

As in last year’s report, FAIR Health studied four alternative places of service—retail clinics, urgent care centers, telehealth and ASCs—and compared them to more traditional venues of care, offices and ERs.

Retail Clinic

The normalized share of claim lines for retail clinics grew nationally 306 percent from 2014 to 2019 (figure 1), a slightly faster pace of growth than that documented in last year’s report (293 percent from 2013 to 2018).

Growth from 2014 to 2019 was higher in urban (329 percent) than rural areas (102 percent). From 2018 to 2019, total growth in the percentage share of retail clinic utilization was 39 percent and urban growth 43 percent; in rural areas, retail clinic usage declined 7 percent.

Figure 1. Percent of claim lines with retail clinic usage by rural, urban and national settings, 2014-2019
In figure 1 above, rural and urban retail clinic usage in 2014 is shown as a percentage of all rural and urban retail clinic usage, respectively, measured by claim lines, from 2014 to 2019. But in figure 2 below, rural and urban retail clinic usage in 2014 is shown as a percentage of all rural and urban medical claim lines, respectively, in that year.

In rural, urban and national settings from 2014 to 2019, the percentage of all medical claim lines attributed to retail clinics was less than 0.1 percent, just as it had been from 2013 to 2018. Use is increasing, however. In rural areas, retail clinics’ percentage of all medical claim lines approximately doubled, rising from 0.02 percent in 2014 to 0.04 percent in 2019. In urban areas and the nation as a whole, the percentage rose from 0.01 percent to 0.05 percent.

![Figure 2. Claim lines with retail clinic usage as a percentage of all medical claim lines by rural, urban and national settings, 2014-2019](image-url)
In the heat map below, states in which claim lines with retail clinic usage were a greater percentage of all medical claim lines than other states in 2019 are on the red end of the spectrum, while states with a lower percentage are on the green end (figure 3). In previous years, Minnesota was the number one state for claim lines with retail clinic usage as a percentage of all medical claim lines by state. But this year West Virginia took that position, with Oregon in second place and Minnesota in third. Nebraska and Missouri came, respectively, in fourth and fifth place. Compared to the year before, all but Minnesota were new to the list of five states with highest retail clinic usage.

The five states with the lowest retail clinic usage in 2019, in order from least to most, were Louisiana, Wyoming, North Carolina, Alabama and Virginia. All were new to that list compared to the year before.

The geographic changes in retail clinic usage may be related to widely reported industry changes that promote such usage. For example, following the acquisition of Aetna by CVS Health, the combined company has been expanding the types of services allowed within its retail clinics and has been expanding their reach.7 Similarly, Walmart has begun expanding into retail clinics as well—offering services such as primary care and psychiatric counseling.8

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The age distribution of retail clinic claim lines changed in 2019 (figure 4). In 2018, individuals aged 51-60 were the age group for which the most retail clinic claim lines were submitted, but in 2019 individuals aged 31-40 took that position, with 18 percent of retail clinic claim lines. Generally, retail clinics skewed younger in 2019, with the age group 0-10, for example, accounting for 11 percent of claim lines compared to 3 percent in 2018, and the age group over 80 accounting for 2 percent of claim lines compared to 6 percent in 2018.

Figure 4. Percent of claim lines with retail clinic usage by age group, 2019
In 2019 as in previous years, more claim lines were submitted for women than for men in most age groups in the places of service in which FAIR Health studied gender-related patterns—retail clinics, urgent care centers, telehealth, ASCs and ERs. As noted in past editions, this is consistent with the findings of other researchers that women are more likely than men to visit physicians\(^9\) and make use of healthcare services.\(^10\)

In retail clinics from 2016 to 2018, the only age group in which claim lines for males outnumbered those for females was that of children aged 0-10. In 2019, however, the gender distribution for that age group was almost even, with males and females each accounting for approximately 50 percent (figure 5). In the other age groups, the gender distribution was similar to what it had been in 2018.

**Figure 5. Percent of claim lines with retail clinic usage by age and gender, 2019**


As in previous years, the most common diagnostic category in retail clinics in 2019 was acute respiratory diseases and infections, which accounted for 37 percent of retail clinic claim lines that year (figure 6). Its share of the distribution was larger than the year before (31 percent). In 2019, encounter for immunization was the second largest diagnostic category, at nine percent, whereas the second largest in 2018 had been exposure to communicable diseases.

In 2019, ear infections and urinary tract infections kept the same share of the distribution as in 2018: six percent and five percent, respectively. From 2018 to 2019, influenza and pneumonia increased from three percent to six percent of the distribution. Viral infections and diseases entered the top diagnostic categories in 2019, at two percent. That category included viral infection, unspecified; zoster without complications (shingles); and viral warts (plantar included).

Figure 6. Distribution of claim lines with retail clinic usage by diagnostic category, 2019
As in previous years, the type of procedure most commonly performed in retail clinics in 2019 was established patient office or other outpatient services (figure 7). Its share of the distribution of retail clinic claim lines rose from 25 percent in 2018 to 30 percent in 2019. In second place in both 2018 and 2019 was infectious agent antigen detection, but it grew from 14 percent in 2018 to 19 percent in 2019. Psychiatric diagnostic procedures entered the top procedures at one percent of the distribution, indicating an increase in mental healthcare in some retail clinics.

Figure 7. Distribution of claim lines with retail clinic usage by procedures, 2019
The average charges and allowed amounts for the most common procedures performed in retail clinics in 2019, as identified by CPT code, are shown in figure 8. The top eight codes by volume were similar to 2018, though the order differed slightly, with CPT 87804, the influenza test, moving from eighth to fourth place. Also, CPT 90750 (shingles vaccine) joined the top eight while CPT 90686 (quadrivalent flu vaccine) fell off the list. CPT 90750 (shingles vaccine) had the highest average charge ($190) and allowed amount ($98) of the top eight. The lowest average charge was $35, for CPT 87880 (streptococcus test) and CPT 90471 (immunization administration). The lowest average allowed amount was $12 for CPT 87880 (streptococcus test).

![Figure 8. Average charges and average allowed amounts for the most common procedures performed in retail clinics, 2019](image)

<table>
<thead>
<tr>
<th>CPT Code</th>
<th>Description</th>
<th>CPT Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>99213</td>
<td>Office outpatient visit – 15 minutes</td>
<td>99214</td>
<td>Office outpatient visit – 25 minutes</td>
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<tr>
<td>87880</td>
<td>Streptococcus test</td>
<td>99203</td>
<td>Office outpatient – new – 30 minutes</td>
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<tr>
<td>90471</td>
<td>Immunization administration</td>
<td>90750</td>
<td>Zoster (shingles) vaccine (HZV)</td>
</tr>
<tr>
<td>87804</td>
<td>Influenza test</td>
<td>99202</td>
<td>Office outpatient – new – 20 minutes</td>
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</tbody>
</table>

Figure 8. Average charges and average allowed amounts for the most common procedures performed in retail clinics, 2019
Urgent Care

The normalized share of claim lines for urgent care centers grew overall 425 percent from 2010 to 2019 (figure 9). This was a lower increase from that from 2009 to 2018 (523 percent). There was a decrease in utilization of 11 percent from 2017 to 2018, but in the following year (2018 to 2019) there was an increase of 47 percent overall. The increase was 47 percent in urban areas and 41 percent in rural areas.

The increase could be due, in part, to the longer flu season in 201911 and to the establishment of more urgent care centers,12 with, reportedly, an almost 10 percent increase in the number of centers from 2018 to 2019.13

Growth in urgent care center usage from 2010 to 2019 was overall higher in rural (506 percent) than urban areas (419 percent).

Figure 9. Percent of claim lines with urgent care center usage by rural, urban and national settings, 2010-2019

Figure 10 presents claim lines with urgent care center usage as a percentage of all medical claim lines by rural, urban and national settings. In all three settings, the percentage of all medical claim lines attributed to urgent care centers reached over 1 percent from 2016 to 2019.

From 2010 to 2019, rural urgent care center usage as a percentage of all rural medical claim lines grew from 0.27 percent to 1.62 percent, while its urban counterpart grew from 0.30 percent to 1.55 percent. Nationally, urgent care center usage as a percentage of total medical claim lines rose from 0.30 percent in 2010 to 1.56 percent in 2019.

Figure 10. Claim lines with urgent care center usage as a percentage of all medical claim lines by rural, urban and national settings, 2010-2019
In 2019, the same states as in 2018 ranked in the top five for claim lines with urgent care center usage as a percentage of all medical claim lines by state, but their order was slightly different (figure 11). Hawaii, Virginia and New Mexico, in that order, ranked from first to third place both years. Louisiana moved from fourth to fifth place and Maryland moved from fifth to fourth place.

The five jurisdictions with the lowest urgent care center usage in 2019 were Washington, DC; Iowa; North Dakota; Massachusetts; and Alaska. This list is similar to 2018, but with some changes in order—for example, Washington, DC, had the lowest utilization rather than North Dakota—and with the addition of Alaska and the removal of Montana.

![Figure 11. Percent of claim lines with urgent care center usage compared to all medical claim lines by state, 2019](image-url)
As in previous years, the age group with the greatest share of claim lines for urgent care center usage in 2019 was that of individuals aged 31-40 (18 percent; figure 12). The age distribution generally remained the same as in 2018.

Figure 12. Percent of claim lines with urgent care center usage by age group, 2019
In 2019, as in previous years, urgent care center claim lines for females exceeded those for males in every age group except 0-10 (figure 13). The age/gender distribution was generally similar to that of 2018. In both years, the greatest gender disparity was in the 19-22 age group, where females accounted for 64 percent of claim lines and males for 36 percent.

![Figure 13. Percent of claim lines with urgent care center usage by age and gender, 2019](image)
As in previous years, acute respiratory diseases and infections were the most common diagnostic category in urgent care centers in 2019, accounting for 32 percent of the claim line distribution in that place of service (figure 14). Unlike in 2018, influenza and pneumonia were the second most common reason for individuals to seek care at urgent care centers, with seven percent of the distribution; by contrast, influenza and pneumonia were in ninth place in 2018, with four percent. This change may be due in part to the longer flu season in 2019.¹⁴ Chronic respiratory diseases (three percent) joined the list of top diagnostic categories, while digestive system issues fell off.

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¹⁴ Xu et al., “Update: Influenza Activity in the United States during the 2018–19 Season and Composition of the 2019–20 Influenza Vaccine.”
As in retail clinics (figure 7), and as in previous years in urgent care centers, established patient office or other outpatient services were the most common procedure in urgent care centers in 2019, accounting for 24 percent of claim lines that year for that place of service (figure 15). There were few changes in top procedure codes from 2018 to 2019. One such change was that urgent care visits (S-codes) rose from fourth place at 10 percent to second place at 18 percent. S-codes comprise S9083 (global fee urgent care centers) and S9088 (services provided in an urgent care).

Figure 15. Distribution of claim lines with urgent care center usage by procedures, 2019
The most common codes being billed in urgent care centers did not change from 2018 to 2019, with two exceptions: S9083, the global urgent care center fee, rose from fourth place to first place; and CPT 87804, the flu test, rose from seventh place to fifth place (figure 16). The highest average charge amount in 2019 was $317 for CPT 99204, new office outpatient, 45-minute visit. The highest average allowed amount was $147 for S9083, the global urgent care center fee. The lowest average charge amount ($18) and average allowed amount ($2) were for CPT 81003, urinalysis procedures.

**Figure 16. Average charges and average allowed amounts for the most common procedures performed in urgent care centers, 2019**
Retail Clinic, Urgent Care Center and Office: A Price Comparison

As in previous years, for a comparison of prices at retail clinics, urgent care centers and traditional offices, FAIR Health analyzed claims data for new patient E&M codes. A new patient E&M visit includes a detailed history for the patient, a detailed examination and medical decision making. Counseling and coordination of care with other providers also may occur. The visits are coded by length of time: CPT 99202 is 20 minutes, CPT 99203 is 30, CPT 99204 is 45 and CPT 99205 is 60.

In 2019, the median charge amounts across offices, urgent care centers and retail clinics (figure 17) showed relative differences similar to those seen in 2018. CPT 99202 ranged from $139 in a retail clinic to $145 in an office to $174 in an urgent care center. CPT 99203 ranged from $150 in a retail clinic to $217 in an office to $239 in an urgent care center.

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<td>99204</td>
<td>Office outpatient – new – 45 minutes</td>
</tr>
<tr>
<td>99205</td>
<td>Office outpatient – new – 60 minutes</td>
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* Retail clinics did not have enough volume to establish any values for CPT 99205.

Figure 17. Median charge amounts for offices, urgent care centers and retail clinics for new patient E&M codes, 2019
In previous years, CPT 99204 was not billed frequently enough in retail clinics to have established values, but in 2019 it was. The median charge amount range for CPT 99204 was from $231 in a retail clinic to $300 in an urgent care center to $333 in an office. CPT 99205 was still not billed at sufficient volume in retail clinics to establish values. As in 2018, the median charge amount for offices ($425) for that code in 2019 was higher than for urgent care centers ($400), but the spread was wider.

When the same comparisons among retail clinics, urgent care centers and offices were made on the basis of median allowed amounts, the results (figure 18) were similar to those for charge amounts (figure 17). For CPT 99202, however, offices rather than retail clinics had the lowest median allowed amount ($78), with retail clinics in the middle ($89) and urgent care centers the highest ($120). Relative differences for the other codes mirrored those of the median charge amounts in 2019 and were similar to those of median allowed amounts in 2018.

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<td>99205</td>
<td>Office outpatient – new – 60 minutes</td>
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* Retail clinics did not have enough volume to establish any values for CPT 99205.

Figure 18. Median allowed amounts for offices, urgent care centers and retail clinics for new patient codes, 2019
Telehealth

Telehealth usage increased nationally 1,019 percent from 2014 to 2019 (figure 19), a larger rate of growth than in the period 2013-2018 reported last year (785 percent). The rural increase in the normalized share of telehealth claim lines from 2014 to 2019 was 287 percent and the urban increase 1,112 percent. In the last year of that period, from 2018 to 2019, rural areas increased 99 percent and urban areas 76 percent; national growth was 73 percent. The rural/urban designation is based on where the patient was receiving care.

Figure 19. Percent of claim lines with telehealth usage by rural, urban and national settings, 2014-2019
Figure 20 shows claim lines with telehealth usage as a percentage of all medical claim lines by rural, urban and national settings. 2019 was the first year in this period (2014-2019) when urban and national telehealth surpassed 0.20 percent of all medical claim lines for their respective settings—0.23 percent for urban, 0.22 percent for national. Rural telehealth remained under that level, at 0.10 percent of all rural medical claim lines.

Figure 20. Claim lines with telehealth usage as a percentage of all medical claim lines by rural, urban and national settings, 2014-2019
The top five states for telehealth claim lines as a percentage of all medical claim lines by state changed almost completely from 2018 to 2019 (figure 21). In 2019, in order from most to least, they were Texas, California, Alaska, Illinois and Florida. Only Texas persisted from the top five in 2018, and it shifted from fifth place to first place. In general, a great deal of telehealth-related legislation was passed in 2018 and 2019, changing the telehealth landscape and expanding telehealth adoption.\(^{15}\)

None of the five states with the lowest telehealth use rates in 2018 (Minnesota, Rhode Island, Montana, Massachusetts and South Dakota) could be found in the same list in 2019. In order from least to most, that list in 2019 was Alabama, Utah, Mississippi, Connecticut and Idaho.

\[\text{Figure 21. Percent of claim lines with telehealth usage compared to all medical claim lines by state, 2019}\]

As in 2018, the age group with the largest share of telehealth claim lines in 2019 was that of individuals aged 31-40 (23 percent), and the second largest was that of individuals aged 41-50 (18 percent; figure 22). Two age groups that showed growth from 2018 to 2019 were 0-10 and 23-30, each of which had a 15 percent share of the distribution in 2019 (compared to, respectively, 9 percent and 12 percent in 2018).

Figure 22. Percent of claim lines with telehealth usage by age group, 2019
In previous years, claim lines with telehealth usage were submitted more for females than males in every age group except children aged 0-10. That changed in 2019, when males accounted for more claim lines than females in one adult age group: 71-80 (figure 23). The distribution in that age group was 55 percent male, 45 percent female.

Figure 23. Percent of claim lines with telehealth usage by age and gender, 2019
In 2019, mental health conditions became the most common telehealth diagnostic category, moving into first place with 35 percent of the distribution from fifth place in 2018 with 7 percent (figure 24). Acute respiratory diseases and infections remained in second place with 21 percent in 2019 compared to 11 percent in 2018. Digestive system issues, which had been in first place in 2018, dropped off the list of most common diagnostic categories.

Figure 24. Distribution of claim lines with telehealth usage by diagnostic category, 2019
Ambulatory Surgery Center

The normalized share of claim lines for ASCs grew 60 percent overall from 2010 to 2019 (figure 25), compared to 35 percent from 2009 to 2018. As in the period 2009-2018, growth from 2010 to 2019 was greater in rural (84 percent) than urban areas (60 percent). After a decline from 2017 to 2018, ASC usage increased 30 percent nationally and in urban areas in the single year from 2018 to 2019; the increase in rural areas was 25 percent that year.

![Figure 25. Percent of claim lines with ASC usage by rural, urban and national settings, 2010-2019](image-url)
In the period 2010 to 2018, ASCs accounted for less than one percent of all medical claim lines by rural, urban and national settings (figure 26). But in 2019, ASCs surpassed one percent in urban (1.05 percent) and national (1.04 percent) settings, though not in rural (0.93 percent) settings.

**Figure 26.** Claim lines with ASC usage as a percentage of all medical claim lines by rural, urban and national settings, 2010-2019
As in previous years, more ASC claim lines in 2019 were submitted for females than males in almost every age group (figure 27). The exceptions, as in previous years, were the age groups 0-10 (males 59 percent) and 11-18 (males 52 percent).

Figure 27. Percent of claim lines with ASC usage by age and gender, 2019
Emergency Room

The normalized share of claim lines for ERs grew nationally 100 percent from 2010 to 2019 (figure 28), a larger increase than that from 2009 to 2018 (94 percent). Urban growth from 2010 to 2019 (99 percent) continued to be greater than rural growth (97 percent), as it had been in previous periods.

After a decline from 2017 to 2018, ER usage rose from 2018 to 2019 in national (33 percent), urban (34 percent) and rural (25 percent) settings.

Figure 28. Percent of claim lines with ER usage by rural, urban and national settings, 2010-2019
As in previous years, ERs accounted for a larger percentage of all medical claim lines than any of the other places of service studied for that variable in this report (figure 29). Nationally, the ER percentage of all medical claim lines grew from 1.47 percent in 2010 to 2.94 percent in 2019. In the rural setting, the ER percentage of all medical claim lines for that setting grew from 1.69 percent in 2010 to 3.33 percent in 2019. In urban areas, the percentage grew from 1.45 percent to 2.89 percent.

Figure 29. Claim lines with ER usage as a percentage of all medical claim lines by rural, urban and national settings, 2010-2019
As in 2017 and 2018, the age group with the greatest share of claim lines for ER usage in 2019 was 51-60 (16 percent; figure 30). The age range 31-70, comprising the four age groups with the greatest share of claim lines, collectively accounted for 56 percent of the distribution. Pediatric patients (ages 0-18) accounted for the same percentage as in 2017 and 2018 (12 percent).

Figure 30. Percent of claim lines with ER usage by age group, 2019
As with all of the other places of service studied for gender, and as in 2018, more claim lines with ER usage in 2019 were submitted for females than males in most age groups (figure 31). The sole exception was the age group 0-10, in which claim lines for boys (55 percent) outnumbered those for girls (45 percent). In the age groups 11-18 and 61-70, the disparity between females (52 percent) and males (48 percent) was relatively small, but the gap was wider in the other age groups.

Figure 31. Percent of claim lines with ER usage by age and gender, 2019
Figure 32 shows the 2019 distribution of claim lines with ER usage by diagnostic category for individuals over the age of 22. The top 15 diagnostic categories remained fairly stable from 2018, with digestive system issues still at number one, though with 12 percent rather than 15 percent of the distribution. There were some changes in order, however, and chest pain was added to the list at number two (with 10 percent) while endocrine and metabolic disorders fell off the list. Overall, the diversity of conditions seen in the ER expanded in 2019, with the category of “All Others” constituting 33 percent of the distribution in 2019 compared to 19 percent in 2018. “All Others” in 2019 included influenza and pneumonia, kidney and bladder stones, and mental health issues, among other diagnostic categories.

Figure 32. Distribution of claim lines with ER usage by diagnostic category for individuals over 22 years of age, 2019
The 2019 distribution of claim lines with ER usage by procedures for individuals in all age groups, not including E&Ms (figure 33), was similar to that in 2018. Again, diagnostic radiology of the chest was the most common procedure, with 12 percent of the 2019 distribution, and again cardiography procedures were in second place (11 percent). Diagnostic radiology of the abdomen fell from third place to sixth place, being displaced by chemistry procedures, hematology and coagulation procedures and diagnostic radiology of the head and neck. There was more diversity in the 2019 distribution, in which “All Others” accounted for 30 percent, than in the 2018 distribution, in which that category accounted for 21 percent.

Figure 33. Distribution of claim lines with ER usage by procedures for individuals in all age groups, not including E&Ms, 2019
Figure 34 shows average charges and allowed amounts for the most common ER procedure codes in 2019. The most common ER codes remained the same from 2018 to 2019, except that two codes changed places, with CPT 85025 (blood count; complete [CBC], automated) becoming seventh and CPT 70450 (CT head/brain without contrast material) becoming eighth. The highest average charge amount ($1,151) and average allowed amount ($500) were for CPT 99285 (emergency department visit—high severity—life threatening). The lowest average charge amount ($36) and average allowed amount ($10) were for CPT 85025 (blood count; complete [CBC], automated).

<table>
<thead>
<tr>
<th>CPT Code</th>
<th>Description</th>
<th>CPT Code</th>
<th>Description</th>
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<tr>
<td>99285</td>
<td>Emergency department visit – high severity – life threatening</td>
<td>71045</td>
<td>Single-view chest X-ray</td>
</tr>
<tr>
<td>99284</td>
<td>Emergency department visit – high/urgent severity</td>
<td>71046</td>
<td>Two-view chest X-ray</td>
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<tr>
<td>99283</td>
<td>Emergency department visit – moderate severity</td>
<td>85025</td>
<td>Blood count; complete (CBC), automated</td>
</tr>
<tr>
<td>93010</td>
<td>Electrocardiogram</td>
<td>70450</td>
<td>CT head/brain w/o contrast material</td>
</tr>
</tbody>
</table>

Figure 34. Average charges and allowed amounts for the most common procedures performed in ERs, 2019
FH Medical Price Index

As stated in the Methodology section, FH Medical Price Index uses median charge amounts and median imputed allowed amounts and calculates the changes in those amounts across the years. FH Medical Price Index is based on FAIR Health’s benchmark products. Benchmark releases from 2020 did not show changes that were different from past years. FAIR Health conducts rigorous testing and analysis on each of its benchmark modules to ensure consistency and validity prior to release.

Professional E&M

The professional E&M indices include CPT codes in the AMA CPT code category Evaluation and Management Services for procedures typically performed in a professional setting as opposed to a hospital setting. This includes office visits such as CPT 99213 and consultations such as CPT 99241.

From November 2019 to November 2020, the professional E&M charge amount index continued the steady upward trend seen since the base period of May 2012 (figure 35). The index increased from 1.34 in November 2019 to 1.38 in November 2020, a three percent increase.

Figure 35. Professional E&M charge amount index
The professional E&M allowed amount index saw similar steady growth (figure 36). The index increased from 1.33 in November 2019 to 1.39 in November 2020, a five percent increase.

Figure 36. Professional E&M allowed amount index
Hospital E&M

The hospital E&M indices include CPT codes in the AMA CPT code category Evaluation and Management Services for procedures typically performed in a hospital setting, such as CPT 99223, initial hospital care per day, 70 minutes, or CPT 99283, emergency department visit of moderate severity. They exclude E&Ms typically performed in a professional setting, such as common office visits. Facility fees are not included.

The hospital E&M charge amount index continued the growth trend since May 2012 (figure 37). The index increased from 1.52 in November 2019 to 1.61 in November 2020, a six percent increase. Of the six categories, hospital E&Ms had the greatest percent increase in charge amount index from November 2019 to November 2020.

Figure 37. Hospital E&M charge amount index
The hospital E&M allowed amount index increased significantly, from 1.46 in November 2019 to 1.60 in November 2020, a 10 percent increase (figure 38). Of the six categories, hospital E&Ms had the greatest percent increase in allowed amount index from November 2019 to November 2020.

Figure 38. Hospital E&M allowed amount index
Medicine

The medicine indices include all procedures that are not E&Ms, meet the frequency criterion of one million or more and are found in the CPT code ranges from CPT 90281 to CPT 99199 and CPT 99500 to CPT 99607. They include services such as immunizations, psychiatry services, dialysis procedures and allergy and immunology procedures.

The medicine charge amount index flattened out considerably since November 2019 (figure 39). The index grew from 1.25 in November 2019 to 1.26 in November 2020, a one percent increase.

Figure 39. Medicine charge amount index
The medicine allowed amount index showed a steep rise not typical of the past trend of slower growth. The index increased from 1.29 in November 2019 to 1.40 in November 2020, a nine percent increase (figure 40).

Figure 40. Medicine allowed amount index
Surgery

The surgery indices include codes typically found in the surgical portion of the CPT code book, such as CPT 17003, which is a destruction of a premalignant lesion, and CPT 43239, which is a biopsy during an endoscopy. These are procedures for which the physician would bill; facility fees, if any, are not reflected in the surgery indices.

The surgery charge amount index saw a slightly lessened, but still steady rise since November 2019 (figure 41). The index increased from 1.16 in November 2019 to 1.20 in November 2020, a three percent increase.

Figure 41. Surgery charge amount index
The surgery allowed amount index continued to rise rapidly (figure 42). The index increased from 1.19 in November 2019 to 1.27 in November 2020, a seven percent increase.

Figure 42. Surgery allowed amount index
Pathology and Laboratory

The pathology and laboratory indices include the CPT code range 80047 through 89398, which identifies such procedures as organ- or disease-oriented panels, drug testing, therapeutic transfusion medicine, microbiology, anatomic pathology (postmortem), cytopathology and in vivo laboratory procedures. Technical (e.g., equipment) and professional costs are included, but not facility fees.

The pathology and laboratory charge amount index exhibited an acceleration in growth since May 2019 (figure 43). The index increased from 1.17 in November 2019 to 1.23 in November 2020, a five percent increase.

Figure 43. Pathology and laboratory charge amount index
After a period of slower growth, the pathology and laboratory allowed amount index experienced a small jump from the November 2019 value (figure 44). The index increased from 1.14 in November 2019 to 1.18 in November 2020, a four percent increase.

Figure 44. Pathology and laboratory allowed amount index
**Radiology**

The radiology indices include CPT codes from 70010 to 79999, representing a variety of imaging techniques to diagnose or treat diseases. X-rays, radiographs, ultrasounds, positron emission tomography (PET), computed tomography (CT) and nuclear medicine are included in this category. Both technical and professional components are included, but not facility fees.

The radiology charge amount index continued its steady decline since November 2018 (figure 45). The index decreased from 1.09 in November 2019 to 1.08 in November 2020, a one percent decrease. Of the six categories, radiology was the only one to decrease in charge amount index from November 2019 to November 2020.

![Figure 45. Radiology charge amount index](image)
The radiology allowed amount index, by contrast, rose since November 2019 (figure 46). The index increased from 1.14 in November 2019 to 1.17 in November 2020, a three percent increase. Of the six categories, radiology had the lowest percent increase in allowed amount index from November 2019 to November 2020.

![Figure 46. Radiology allowed amount index](image)

### Conclusion

In last year’s edition of FH Healthcare Indicators, three of five places of service studied for change in utilization showed a decrease in utilization from 2017 to 2018: urgent care centers, ASCs and ERs. Only retail clinics and telehealth showed an increase in that period. In this year’s edition, by contrast, all five of these places of service presented an increase in utilization from 2018 to 2019. The greatest rate of growth was for telehealth (73 percent), followed by urgent care centers (47 percent), retail clinics (39 percent), ERs (33 percent) and ASCs (30 percent).

Among the places of service studied, ERs continued to hold the highest percentage of medical claim lines in 2019, with 2.94 percent of all medical claim lines nationally. The comparable percentages for the other places of service were 1.56 percent for urgent care centers, 1.04 percent for ASCs, 0.22 percent for telehealth and 0.05 percent for retail clinics.

As in previous editions, patterns of utilization studied in this year’s edition typically differed across states and in urban and rural areas, and age distribution differed among places of service. In retail clinics, urgent care centers and telehealth, the 31-40 age group had the greatest share of claim lines in 2019. But in ERs, it was the 51-60 age group.

In past editions, claim lines were more likely to be submitted for women than men in every adult age group in every place of service studied. But this year there was one exception: In telehealth in 2019, males accounted for more claim lines than females in the age group 71-80 years. The distribution in that age group was 55 percent male, 45 percent female.
Places of service varied in their most common diagnoses and procedures, and in their charge amounts and allowed amounts for their most common procedure codes. There were similarities from year to year, but also differences. For example, mental health conditions became the most common telehealth diagnostic category in 2019, displacing digestive system issues—although the latter remained the most common diagnostic category for individuals over age 22 in ERs, as it had been in 2018.

This year’s edition of FH Medical Price Index shows continued growth of charge amounts from November 2019 to November 2020 in every professional procedure category except radiology. As in the prior year, the radiology charge amount index decreased one percent, the only decrease in either charge amount or allowed amount indices. In every category (professional E&M, hospital E&M, medicine, surgery, pathology and laboratory, and radiology), allowed amounts grew. Of the six categories, hospital E&Ms had the greatest percent increase in charge amount index, 6 percent, and in allowed amount index, 10 percent. Radiology had the lowest percent increase in allowed amount index, three percent.

Because of the importance of the healthcare sector to the US economy and the lives of Americans, understanding the trends and shifts in that sector is vital. By issuing this new edition of FH Healthcare Indicators and FH Medical Price Index, FAIR Health intends to provide insights that can inform decision making by stakeholders throughout the healthcare sector, including payors, providers, government officials, policy makers and others. As part of its mission, FAIR Health will continue to issue these reports annually. In addition, FAIR Health makes available customized indicators and indices that offer specific data subsets (e.g., based on clinical category, geographic region, time period) of particular interest to stakeholders. Contact FAIR Health at info@fairhealth.org or 855-301-3247 to learn more about such customized studies.
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 32 billion claim records and is growing at a rate of over 2 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; FAIR Health houses data on Medicare Advantage enrollees in its private claims data repository. 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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