Qualitative Assessment of Databases for Out-of-Network Physician Reimbursement

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Executive Summary

This study is an environmental scan of different data sources and vendors that could potentially be used to create a minimum benefit standard for out-of-network services. Physicians for Fair Coverage (PFC), an alliance of multi-specialty physician groups dedicated to improving patient protections and promoting transparency in health costs, contracted with NORC at the University of Chicago to conduct the study. Using qualitative methods, NORC reviewed information on the following potential data sources and vendors:

- Blue Health Intelligence (BHI)
- FAIR Health
- Health Care Cost Institute (HCCI)
- Truven MarketScan
- State All-Payer Claims Databases (APCDs)

NORC collected information on the characteristics of these data sources as they relate to the policy use case described above. Key considerations included:

- the organizational structure of each vendor or organization;
- the breadth and depth of the organization’s data (e.g., geography, types of commercial payers, inclusion of “allowable charges” or paid amounts);
- access and availability of cost information for stakeholders; and
- the feasibility of using the vendor’s data to develop a minimum benefit standard for out-of-network services.

We found that data from multiple sources had characteristics that aligned favorably relative to these considerations. We summarize qualitative findings in our report. In the information we gathered for this research, we note where significant information was missing or where the information we obtained seems inconsistent.

We gathered information from interviews and public websites on the number of covered lives and total claims included in each vendor’s database. We present this information in Exhibit A. According to the information we were able to gather:

- BHI data includes information on approximately 60 million privately insured covered lives per year.\(^2\)

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2 From interview
FAIR Health has claims data on 150 million privately insured covered lives per year.\(^3\)

HCCI’s data includes information on 50 million covered lives per year (including privately insured and Medicare Advantage),\(^4\) and

Truven data includes 28 million privately insured covered lives per year.\(^5\)

These figures suggest that the databases are of sufficient size to have adequate coverage in many areas to set benchmarks. However, the best data source will depend on the particular geographic area. Careful analysis should be done of the available microdata to determine whether the data are “fit for use” (in terms of population coverage and representativeness) in each geography of interest. In preparing this report, we did not have access to information on the completeness of claims for each covered life or how well the individuals included in the data represent the underlying population. For a given geographic area, a vendor with complete claims on a smaller (but more representative) number of covered lives could be more appropriate than a data set that has incomplete claims records on a larger set of covered lives that systematically excludes segments of the underlying population.

The NORC team also sought pricing information for licensing each organization’s data. Much of the pricing information we were able to obtain was relevant to licensing data for individual research projects as opposed to operational purposes such as identifying the minimum benefit standard. We conclude that pricing for “non-research” purposes depends on factors such as the geographic area and use case for which the data are needed and likely will vary depending on detailed requirements. This makes it difficult to draw direct pricing comparisons between organizations. However, it is relevant to note that FAIR Health does not charge licensing fees to states where their data are used to support setting a standard for out-of-network services.

Overall, this review showed that FAIR Health, HCCI, and state APCDs are important potential sources of data for the minimum benefit standard policy use case.\(^6\) It should also be said that Truven and BHI also may have data relevant to this use case, depending on the state and geographic area. However, both of those organizations noted that they do not license their data for public benchmarking, and we did not find examples of arrangements either organization has with government entities for benchmarking.

Based on our research, Fair Health is the only vendor whose data are being used for the specific purpose of establishing reimbursement standards for out-of-network services in more than one state and who

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\(^5\) From interview

\(^6\) The viability of using APCDs for benchmarking will vary by state. Some states are much further along in developing an APCD than others. Furthermore, in states where a substantial share of the population is covered through self-insured health plans, APCDs have limited coverage. The Supreme Court in *Gobeille v. Liberty Mutual Insurance Company* ruled that states cannot mandate these plans submit claims to the APCD. The effect of this ruling should be considered on a state-by-state basis, as our experience shows that, in some states, some self-insured plans continue to submit data to the APCD even absent the mandate.
currently make their data available for this purpose broadly across the United States. As a pragmatic matter, this may be the most important consideration.

There are also barriers to using an APCD to establish a national approach to minimum benefit standards; depending on its status, however, an APCD in any given state may offer the best coverage of the total insured population within the state as well as all the necessary data elements to support this standard for smaller geographic locations within that state. However, the Supreme Court’s decision in Gobeille v. Liberty Mutual Insurance Company (2016), may limit state governments’ abilities to secure participation in APCDs by self-insured health plans. While the Gobeille decision does not allow states to mandate claims submission by self-insured plans, our experience in selected states shows that some self-insured plans may yet continue submitting claims to their APCD.7

For these reasons, the optimal source of data for determining a minimum benefit standard may vary depending on geographic location and the priorities of any given policymaker. Because circumstances and requirements will vary by geographic area, we encourage stakeholders to contact relevant organizations directly to assess the compatibility of a given data asset to their needs. Many of the considerations raised in this report might facilitate these discussions.

NORC employed qualitative research methodologies only, and our characterizations are based on a summary review of publicly available information and discussions with stakeholders. The scope of the report did not allow independent validation of these claims through firsthand inspection of the data or analysis using the data to understand the strengths and limitations for use in specific policy-relevant purposes (such as establishing a minimum benefit standard for out-of-network services). We also note that data access and availability policies associated with each vendor and data organization are evolving as the policy landscape is changing.

While we were able to obtain useful information about the data sources through qualitative research, we also believe that future reports of this type could benefit from the analysis of the microdata from the data sources. We also encourage all the vendors and data organizations to produce publicly available data quality reports, which could help potential users better understand the data sources. These data quality reports should include information such as the specific number of unique covered lives by payer type in any given year (e.g., group, individual, and Medicare Advantage); how the data link individuals from different data sources to ensure individual people are not counted more than once in the final dataset; what percentage of total claims are available for a unique individual person; what types of claims may be missing systematically from the database; what specific manipulations were made to the data to comply with national and state laws (e.g., HIPAA or anti-trust); and any other relevant data editing, cleaning, or harmonization that is done in aggregating the data. Producing detailed data quality reports would enable potential users to better understand how these data are able to meet the specific policy needs of users.

7 This is NORC’s understanding based on our work with APCDs in two states. However, the approach taken by ERISA plans will vary by state.
### Exhibit A: Summary of Claims Database Vendors

<table>
<thead>
<tr>
<th>Data Owner or APCD</th>
<th>Blue Health Intelligence</th>
<th>FAIR Health</th>
<th>Health Care Cost Institute</th>
<th>Truven MarketScan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mission</strong></td>
<td>Provide analytics, data consulting, and software services to BCBS plans and other customers such as hospitals, government, and medical device industry. Provide analytic consulting to the Blue Cross Association.</td>
<td>To increase transparency in health care costs and health insurance information through comprehensive data products and consumer resources.</td>
<td>Promote independent research and analyses on the causes of rising health spending, provide more transparent information on what is driving health care costs, and ensure that the nation gets a greater value from its health spending.</td>
<td>To lower health costs, improve quality, produce better health outcomes.</td>
</tr>
<tr>
<td><strong>Board Composition</strong></td>
<td>Board is comprised of representatives from BCBS plans.</td>
<td>The FAIR Health board of directors is comprised of individuals in the fields of medicine, health care policy, law, consumer advocacy, technology, education, medical research, and business. Board members serve without compensation.</td>
<td>HCCI board includes members from the academic, actuarial, and medical communities. Board members serve without compensation.</td>
<td>Truven’s management includes leaders from the health care industry and private business.</td>
</tr>
<tr>
<td><strong>Data Contributors</strong></td>
<td>30 BCBS plans.</td>
<td>60 national and regional insurers, TPAs, and employers. CMS Qualified Entity with access to Medicare and Medicaid data.</td>
<td>Aetna, Humana, Kaiser Permanente, and UnitedHealthcare. CMS Qualified Entity with access to Medicare and Medicaid data.</td>
<td>Primarily employer-provided data but does include some Medicare claims data.</td>
</tr>
</tbody>
</table>

133 From interview.
134 [http://www.fairhealth.org/About-FH](http://www.fairhealth.org/About-FH)
136 From interview.
137 From interview.
138 [http://www.fairhealth.org/About-FH](http://www.fairhealth.org/About-FH)
140 From interview.
141 From interview.
142 From interview.
143 From interview.
144 From interview.
## Known Ways to Access Data

<table>
<thead>
<tr>
<th>Data Owner or APCD</th>
<th>Blue Health Intelligence</th>
<th>FAIR Health</th>
<th>Health Care Cost Institute</th>
<th>Truven MarketScan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Years Available</strong></td>
<td>2005 to present (12 years)(^\text{145})</td>
<td>2002 to present (16 years)(^\text{146})</td>
<td>2007 to present (11 years)(^\text{147})</td>
<td>1995 to present (23 years)(^\text{148})</td>
</tr>
<tr>
<td><strong>Known Ways to Access Data(^\text{149})</strong></td>
<td>Licensed to businesses, providers, other vendors</td>
<td>Licensed to government, insurers, businesses, providers, and academic researchers.</td>
<td>Public reports</td>
<td>Licensed to government organizations, businesses, nonprofits, and academics.</td>
</tr>
<tr>
<td></td>
<td>Because we did not find examples of the use of BHI data for the minimum benefit standard use case, we do not have relevant pricing information.</td>
<td>Public cost transparency tool (FAIR Health Consumer): <a href="http://fairhealthconsumer.org/">http://fairhealthconsumer.org/</a></td>
<td>Licensed to academics, actuarial organizations, and government agencies to conduct research.</td>
<td>Because we did not find examples of the use of Truven data for the minimum benefit standard use case, we do not have relevant pricing information.</td>
</tr>
<tr>
<td></td>
<td>Mobile app for FAIR Health Consumer</td>
<td>While other costs may apply, information we gathered suggests that FAIR Health does not charge state governments licensing fees for using their data for the minimum benefit standard use case.</td>
<td>Public cost transparency tool (Guroo): <a href="https://www.guroo.com/">https://www.guroo.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>State Health Policy Grant Program</td>
<td>RWJ grant <em>Health Data for Action</em></td>
<td>Because we did not find examples of the use of HCCI data for the minimum benefit standard use case, we do not have relevant pricing information.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^{145}\) [https://bluehealthintelligence.com/markets/index.html](https://bluehealthintelligence.com/markets/index.html)

\(^{146}\) From interview.

\(^{147}\) From interview.

\(^{148}\) From interview.

\(^{149}\) We are unable to provide comparable information on cost of data access. Vendors use different models depending on the purpose, and costs vary based on the amount and type of data requested, methods for data access, and other factors. Based on the information we have, if they agree to make available for the purpose of defining a “minimum benefit standard” or similar policy tool, vendors may consider this a “custom use” that would be priced differently depending on the needs of any given agency.
## Data Owner or APCD

<table>
<thead>
<tr>
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<th>Blue Health Intelligence</th>
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<th>Truven MarketScan</th>
</tr>
</thead>
</table>
| Unduplicated commercial lives and claims in the most recent year\(^{151}\) | ▪ 60 million covered lives in a given year.\(^{152}\)  
▪ Number of claims in most recent year not known. | ▪ 150 million covered lives per year.\(^{153}\)  
▪ Number of claims in most recent year not known. | ▪ 50 million covered lives per year including individual, group, and Medicare Advantage.\(^{154}\)  
▪ Number of claims in most recent year not known. | ▪ 28 million covered lives in 2015.\(^{155}\)  
▪ 600 million claims per year.\(^{156}\) |
| No. of commercial claims total all years | Not available | 23 billion claims\(^{157}\) | 6 billion claims\(^{158}\) | Not available |
| No. of commercial lives total all years | 165 million\(^{159}\) | Not available | Not available | Not available |
| Percent claims with allowed charges | 100% | 50% | 100% | 100% |

150. We urge caution in interpreting volume numbers. As noted in the Executive Summary and Conclusions, a dataset with a larger number of claims or covered lives will not automatically be the “best” data source to use in any given geography. We did not have access to the microdata that would allow for careful assessment of completeness of claims and representativeness of the data on covered lives presented in this table.

151. Even though this information is not available for many vendors based on information we have, it is more relevant than “total numbers” for the purpose of developing a standard for out-of-network reimbursement.

152. From interview.

153. [http://www.fairhealth.org/ContributeData](http://www.fairhealth.org/ContributeData), and from phone conversation with FAIR Health that confirmed 150 million covered lives was an annual figure.


155. From interview.

156. From interview.

157. [http://www.fairhealth.org/ContributeData](http://www.fairhealth.org/ContributeData)


159. [https://bluehealthintelligence.com/markets/index.html](https://bluehealthintelligence.com/markets/index.html)
<table>
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<th>Truven MarketScan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Geographic coverage</strong></td>
<td>Limited or no coverage areas</td>
<td>States where BCBS have a low market share; areas with BCBS plans that do not share data.</td>
<td>Has coverage in all states; limited in some states.</td>
<td>Has coverage in all states; weakest coverage is in states where the Blues have a dominant market share.</td>
</tr>
<tr>
<td><strong>Limitations on data use</strong></td>
<td>Other limitations</td>
<td>Data not licensed for benchmarking purposes.(^ {160} )</td>
<td>Data are licensed for benchmarking purposes.(^ {161} )</td>
<td>Data has been used for benchmarking in different contexts.(^ {162} )</td>
</tr>
</tbody>
</table>

\(^{160}\) From interview.  
\(^{161}\) From interview.  
\(^{162}\) From interview. HCCI has made its data available to states for benchmarking-related purposes as shown in “examples of prior use.”  
\(^{163}\) From interview.
## Exhibit B: Summary of State APCDs

<table>
<thead>
<tr>
<th>State</th>
<th>Type of Claims Data Available</th>
<th>Has a Public Transparency Tool?</th>
<th>Data Elements</th>
<th>Years Available</th>
<th>Number of Commercial Claims Total All Years</th>
<th>Number of Commercial Lives Total All Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arkansas</td>
<td>—</td>
<td>No</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Colorado</td>
<td>—</td>
<td>Yes. Available at <a href="https://www.comedprice.org/">https://www.comedprice.org/</a></td>
<td>Allowed charge, billed charge, physician specialty, geographic location, place of service, date of service</td>
<td>Data year ranges depending on needs. State costs and utilization uses data from 2011 to 2014. Medical services prices reflect 2012 claims for commercial payers,(^{164})</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Kansas</td>
<td>Medical, eligibility, dental, and pharmacy claims</td>
<td>No</td>
<td>—</td>
<td>Since July 2011, Kansas has acquired Medicaid claims databases, which are integrated into the data warehouse. The data warehouse also includes state employee health plan (2009 onward) and KHIIS commercial claims (2009 onward). All data are maintained on a rolling five-year cycle. 2009 to 2012 Medicaid data are fee for service; 2012 onward is managed care,(^ {165})</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Maine</td>
<td>Claims from commercial insurance carriers, third-party administrators and self-funded plans, pharmacy benefit managers, dental benefit administrators, MaineCare (Maine Medicaid), and Medicare</td>
<td>Yes. Available at <a href="https://www.comparemaine.org">www.comparemaine.org</a></td>
<td>Billed charge, physician specialty, geographic location, place of service, date of service</td>
<td>Maine has collected health insurance claims information in its APCD since 2003,(^ {166})</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

\(^{164}\) [https://www.comedprice.org/#/home](https://www.comedprice.org/#/home)

\(^{165}\) [https://www.apcdcouncil.org/state/kansas](https://www.apcdcouncil.org/state/kansas)

\(^{166}\) [https://mhdo.maine.gov/claims.htm](https://mhdo.maine.gov/claims.htm)
<table>
<thead>
<tr>
<th>State</th>
<th>Type of Claims Data Available</th>
<th>Has a Public Transparency Tool?</th>
<th>Data Elements</th>
<th>Years Available</th>
<th>Number of Commercial Claims Total All Years</th>
<th>Number of Commercial Lives Total All Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maryland</td>
<td>Enrollment, provider, and claims data for Maryland residents enrolled in private insurance, Medicare, or Medicaid Managed Care Organizations</td>
<td>No</td>
<td>Allowed charge, billed charge, geographic location, place of service, date of service</td>
<td>Member eligibility, professional services, institutional, pharmacy claims available from 2010 forward. Dental claims available from 2014 forward.(^{167})</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>Data from commercial payers, third-party administrators and public programs such as Medicare and MassHealth, and Massachusetts’s Medicaid program</td>
<td>No</td>
<td>Allowed charge, billed charge, physician specialty, geographic location, place of service, date of service</td>
<td>January 1, 2011 to December 31, 2015, with minimum run out through March 30, 2016.(^{168})</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Minnesota</td>
<td>Medicaid and Medicare plans</td>
<td>No</td>
<td>Billed charge, geographic location, place of service, date of service</td>
<td>2009 to 2015 (^{169})</td>
<td>1.1 billion(^{170})</td>
<td>4.3 million(^{171})</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>Claims from commercial payers, third-party/self-funded, Medicaid, and Medicare</td>
<td>Yes, Available at nhhealthcost. nh.gov</td>
<td>Allowed charge, billed charge, physician specialty, geographic location, place of service, date of service</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Oregon</td>
<td>Medical and pharmacy claims, enrollment data, premium information, and provider information for commercial insurers, Medicaid, and Medicare</td>
<td>No</td>
<td>Billed charge, physician specialty, geographic location, place of service, date of service</td>
<td>Commercial, Medicaid, Medicare available from 2010 to present.(^{172})</td>
<td>—</td>
<td>About 3.2 million(^{173})</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>State</th>
<th>Type of Claims Data Available</th>
<th>Has a Public Transparency Tool?</th>
<th>Data Elements</th>
<th>Years Available</th>
<th>Number of Commercial Claims Total All Years</th>
<th>Number of Commercial Lives Total All Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhode Island</td>
<td>Eligibility, medical claims, members, pharmacy claims, procedure codes, product codes, providers, and more</td>
<td>No</td>
<td>Allowed charge, billed charge, physician specialty, geographic location, place of service, date of service</td>
<td>2011 forward for private insurer and Medicaid. Medicare FFS are available from 2011 to 2013.¹⁷⁴</td>
<td>—</td>
<td>824,537 lives as in 2014¹⁷⁵</td>
</tr>
<tr>
<td>Tennessee (in implementation)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Utah</td>
<td>Medical, pharmacy, dental, enrollment, and provider claims</td>
<td>No</td>
<td>Billed charge, place of service, date of service</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Vermont</td>
<td>Health insurers, third-party administrators, pharmacy benefit managers, self-insured plans, Medicare supplement, Medicare parts C and D</td>
<td>No</td>
<td>Billed charge, physician specialty, geographic location, place of service</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Virginia</td>
<td>Medical claims, pharmacy claims, member eligibility and medical provider</td>
<td>No</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>About 3.5 million¹⁷⁶</td>
</tr>
<tr>
<td>Washington (in implementation)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

¹⁷⁴ [http://www.health.ri.gov/data/healthfactsri](http://www.health.ri.gov/data/healthfactsri).
¹⁷⁵ [http://www.health.ri.gov/data/healthfactsri](http://www.health.ri.gov/data/healthfactsri).
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http://civhc.org/About-CIVHC.aspx/.


https://www.oregon.gov/oha/analytics/Pages/APAC-Data-Requests.aspx


http://www.health.state.mn.us/healthreform/encounterdata/index.html

http://vhi.org/APCD/.

"Arkansas Rate Review Grants Award List.” Centers for Medicare & Medicaid Services (CMS).  


https://www.tn.gov/assets/entities/hcfa/attachments/HistOfAPCD.pdf


https://www.comedprice.org/#/home.


