FINAL REPORT

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

APRIL 18, 2017

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Executive Summary

This study examines the merits of available national data sources that could potentially be used to determine out-of-network reimbursement rates for medical services. NORC at the University of Chicago examined state all payer claims databases (APCD) and databases from both private and non-profit vendors, evaluating the different data sources on their comprehensiveness, validity, availability, and other features. We also considered the independence of each vendor or organization, the cost of acquiring the necessary data, and the availability of cost information for consumers.

The data sources/organizations reviewed were:

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

For the purposes of identifying a standard benchmark that draws on comprehensive data, NORC recommends the use of a vendor with national data coverage over state APCDs. APCD data and access processes are not uniform across states, rendering a nation-wide standard and process for analysis of claims and costs associated with the establishment and maintenance of the databases very difficult. Additionally, with the recent *Gobeille v. Liberty Mutual Insurance Company* court decision, states cannot mandate data reporting from ERISA-regulated self-funded plans, making it more difficult to apply benchmarks based on these data

NORC finds that FAIR Health met the most criteria and recommends the use of FAIR Health as a reliable source of data for this purpose. Importantly, other vendors were not in the benchmarking business, and prohibited outside parties from using their data for benchmarking purposes. FAIR Health had the largest and most geographically widespread database. Use of FAIR Health data is less costly than other vendors. More specifically, our recommendation is based on these considerations:

- A national dataset with over 150 million covered lives.
- Both Commercial and Medicare claims.
- Data include allowed and billed charges.
- Easily accessible data and moderately priced.
- Transparency is its primary business.

Introduction:

In the health care market, having accurate, timely, and transparent data is critical to all stakeholders. With proper data, consumers can make more cost-effective decisions which in turn will promote price competition in provider and consumer markets. Unfortunately, transparency in health care is the exception. Consumers often my find that their insurance may cover only a portion of services, particularly for out-of-network providers, leaving them with a surprise bill. As more health plans move to increase transparency in health care costs, many plans now submit claims data to national databases. A variety of vendors manage these databases, and each provide health claims with cost information for common services. Vendors aggregate claims information, provide publically available tools to assist consumers, and also license data to researchers, government organizations, and private companies to use to promote a better understanding of health costs in the U.S.

Consumers can face larger insurance bills for many reasons. Consumers may not necessarily understand the plans that they have purchased or what services are covered. Further, many insurance networks are currently narrowing, which has been particularly prevalent among Affordable Care Act qualified health plans. Many issuers offer narrow network plans as a cost saving measure to consumers. Plans that offer lower premiums with a smaller network can be attractive to consumers. However, when a patient receives emergency care at an in-network hospital, many patients can still receive care from an out-of-network-physician, typically a specialist, without knowing beforehand that those services will not be covered at the in-network rate. This inadvertent use of out-of-network providers can cause consumer's out-of-pocket expenses to dramatically increase. Additionally, many individuals use high-deductible plans. High deductible plans have lower monthly premiums but have a higher deductible before expenses can be covered by the plan.[1] These plans pass more of the health costs on the consumer. Depending on the plan, there may also be a varied deductible, where a consumer may have a higher deductible for out-of-network coverage. With these factors combined, consumers might face significantly higher out-of-pocket expenses. This scenario is often referred to as the surprise insurance gap.

To address the affordability concerns caused by this gap, Physicians for Fair Coverage (PFC), an alliance of multi-specialty physician groups dedicated to improving patient protections and promoting transparency in health costs,[2] advocates for the creation of an appropriate and fair Minimum Benefit Standard for out-of-network services that establishes a charge-based reimbursement schedule connected to an independently recognized and verified database.[3] PFC contracted NORC at the University of Chicago to conduct an environmental scan of different national databases sources that could potentially be used to determine out-of-network reimbursement rates.

[1] "High-Deductible Health Plans." FAIR Health Consumer Cost Lookup. Accessed April 05, 2017. https://www.fairhealthconsumer.org/reimbursementseries.php?terms=high-deductible-health-plans.

[2] "About PFC." Physicians for Fair Coverage. Accessed March 30, 2017. http://thepfc.org/about-pfc/.

[3] "The Issue." Physicians for Fair Coverage. Accessed March 30, 2017. http://thepfc.org/the-issue/.

Methodology:

NORC at the University of Chicago conducted an environmental scan and evaluation of national claims databases on behalf of PFC. This study reviewed the size, accessibility, quality and cost of national claims databases, as well as a scan of state All-Payer Claims Databases. Further analysis will be conducted to compare the trend and distribution of charges for common physician specialties and codes within FAIR Health data.

NORC conducted web-based research and held discussions with PFC to identify a panel of vendors that provide national databases of insurance claims. Vendors identified included Blue Health Intelligence, Health Care Cost Institute, FAIR Health, Optum360, and Truven MarketScan. NORC conducted a grey literature review to gain insight into the various vendors and databases and contacted vendors via email to schedule phone interviews with executives from each organizations. The interview protocol reviewed:

- The mission and structure of each organization.
- Data elements, including the availability of allowed and billed charges.
- Data contributors and quality control processes.
- Accessibility and cost of the database.
- Limitations of the data.

Of the five vendors contacted, four agreed to interviews: Health Care Cost Institute, Blue Health Intelligence, FAIR Health, and Truven Health Analytics. Optum360 declined as they felt their database would not be appropriate for the project's purposes. Once the interviews were concluded, NORC experts reviewed testimony and assessed each of the vendors on:

- The size and scope of the database.
- Availability of both allowed and billed charges.
- Availability for benchmarking.
- Cost of licensing the data.
- Overall independence of the vendors.

In the following sections, we provide background information for each organization interviewed; results from each vendor interview; review the strengths, limitations, and accessibility of the databases; and recommend a national data source that could potentially be used to benchmark out-of-network reimbursement rates.

Health Care Cost Institute

Organization

The Health Care Cost Institute (HCCI) is a non-partisan and non-profit organization founded in 2011 in an effort to provide independent research and analyses on the rising cost of health care in the United States. HCCI's governing board is comprised of a bipartisan group of experts from academic institutions, private consulting firms, health care experts, and the public sector. HCCI receives much of its funding from four major insurers that submit data; Aetna, Humana, Kaiser Permanente, and United Healthcare.

HCCI's mission is to promote independent research and analyses on the causes of rising US health care spending; to provide policy makers, consumers, and researchers with high quality and transparent information regarding the forces that are driving health care costs; and to help ensure that the nation gets a greater value from its health spending.

Data

HCCI's database includes claims going back to 2007 and includes claims for over 50 million people commercially. With Medicare claims, the database includes nearly 100 million individuals. The Medicare claims date back to 2012. Data elements are fairly comprehensive and include geographic location, place of service, date of service, and physician specialty. HCCI's data come from four issuers: Aetna, Humana, Kaiser Permanente, and United Healthcare. Issuers submit uniform data on an annual basis; they are fully insured paid claims. HCCI's data include both the allowed and billed charges.

HCCI's data are limited in rural areas and in states that are overwhelmingly covered by Blue Cross and Blue Shield Plans. While the database does have some gaps in coverage in some states, they do not use derived (imputed) data. Rather, HCCI opts not to report data in areas where claims coverage is scant. HCCI's quality control involves actuary review, and since the data are fully adjudicated paid claims, the issuers that submitted them met all internal controls to pay the claim. In the database, the data are given to researchers "as is." HCCI stated that researchers do not want them to determine claims' quality on their behalf. It is up to a researcher to determine if, for example, there is an outlier.

Availability of Data

HCCI data are licensed to federal agencies, state governments, and researchers for the purpose of hypothesis testing only. Once a proposal is submitted, it goes to an internal review committee made up of academics. The review process takes between 30 and 60 days and licensing of the data costs approximately $50,000. In order for HCCI's data to be used, the work cannot identify insurers, providers, or suppliers. Further, the data must comply with HIPAA and any anti-trust confidentiality agreements in place. Users of HCCI data include the American Academy of Actuaries, the Congressional Budget Office, Dartmouth College, the Medicare Payment Advisory Commission (MedPAC), the National Bureau of

Economic Research (NBER), Northwestern University's Kellogg School of Management, and the Society of Actuaries. Research using the licensed data cannot identify issuers, providers, or suppliers. Further, users must comply with HIPAA, anti-trust, and confidentiality agreements. In addition to the claims database, HCCI maintains a public website called Guroo, (available at www.guroo.com, which consumers can use to obtain cost estimates for various health care services, including care bundles such as arthroscopic knee surgery.

Strengths and Limitations

Strengths

- Data contribution by four major issuer with broad geographic coverage.
- Data are uniformly submitted and reviewed by actuaries.
- Dataset includes large number of claims dating back to 2007, and to 2012 for Medicare.
- Database includes all necessary elements such as physician, geographic location, place and date of service.
- Numerous reputable organizations use HCCI data including the Congressional Budget Office.
- Pricing information is publically available on consumer-facing website, Guroo, available at www.guroo.com

Limitations

- Database not licensed for benchmarking purposes.
- Database has some areas with scant coverage, generally in states that are heavily Blue Cross. When coverage is scant, values are not reported.
- Affordability may be an issue for some purchasers, with a licensing fee typically around $50,000 per project.
- HCCI receives funding from the four issuers that submit claims.

Blue Health Intelligence

Organization:

Blue Health Intelligence (BHI) has access to one of the health industry's largest and most comprehensive healthcare data base of medical and pharmacy claims.[4] BHI aims to provide transparency regarding health trends and best practices through providing advanced data analytics.[5]

In 2004, the various BCBS plans within the Blue Cross and Blue Shield Association (BCBSA) had an enormous amount of data at their disposal, but lacked the analytic expertize needed to create national benchmarks to support large employers. The plans pooled their data for internal use and launched in 2006.[6] By 2011, it was commercialized and spun off into a separate company. BHI licenses data to researchers, hospitals, state governments, medical device manufacturers, pharmaceutical companies, analysts, and other vendors to use in a variety of different ways. BHI is a for profit company, that provides analytics, data consulting, and software services. BHI maintains a close relationship with the BCA, with 18 blue cross members sitting on the governing board. BHI also has perpetual contracts in place with 30 Blue Cross plans to submit data. Each of the plans submit uniform data monthly.

Data:

BHI collect all claims for BCBS' commercial population. While they are collecting Medicare Advantage claims, they are currently unavailable. BHI's database includes 165 million members from 2005 to present and allows for consistent and continuous data for analysis.[7] BHI's data includes physician specialty, geographic location, place of service, and date of service. Further, BHI's dataset includes a wealth of health information, allowing researchers the flexibility to compare patients by diagnoses, procedures, prescriptions, SIC, age bands, geographic regions, and product types.[8] To ensure data reliability, BHI's data certification process includes four levels of review from both within BHI and with an independent third-party actuarial review.[9]

Availability of Data:

When an organization reaches out to BHI to license data, BHI will license a subset or rollup of the data depending on the client's needs. Data are provided through a secure FTP site; however in some instances BHI will host the data internally. BHI includes precise language in the contract that outlines what the data

[4] "About Us." Blue Health Intelligence. Accessed February 15, 2017. https://bluehealthintelligence.com/about-us/index.html

[5] "Data Transformation." Blue Health Intelligence. Accessed February 15, 2017. https://bluehealthintelligence.com/data-transformation/index.html

[6] Conn, Joseph. "Blue Health Intelligence acquires Fla. analytics firm Intelimedix." Modern Healthcare. Accessed March 30, 2017. http://www.modernhealthcare.com/article/20130116/news/301169954.

[7] "Markets." Blue Health Intelligence. Accessed February 15, 2017. https://bluehealthintelligence.com/markets/index.html

[8] Ibid.

[9] "About Us." Blue Health Intelligence.

can and cannot be used for. If the project involves a whitepaper, for example, there is an approval process for the publication. The cost of licensing is significantly higher than other vendors. Price can range between $250,000 to over $1 million.

BHI's data are used more for determining insights on market share and trends rather than transparency. BHI's data has both the billed and allowed charges for every claim, however BHI is not allowed to show the combination of the charges. Typically, BHI does not get involved in projects that look to measure if one BC plan can pay more than another for the same service. BHI does offer a transparency platform for BCBS members to compare cost by CPT code and look at the average cost for procedures, however this type of transparency is not yielded to third parties. BHI's data are proprietary and not available for benchmarking.

Strengths and Limitations:

Strengths

- Data contribution is mandated. Perpetual contracts are in place to ensure data submission by BCBS plans.
- Data are uniformly submitted and validated.
- Dataset includes a wealth of information dating back to 2006.
- All required data elements are included, such as physician specialty, geographic location, place and date of service.

Limitations

- Not licensed for benchmarking purposes.
- BHI created a consumer cost comparison tool, but it is only available for BCBS consumers. It is not publically available.
- Only BCBS plan data included.
- Commercial claims only for now. BHI is starting to collect Medicare Advantage data and does not have any Medicaid data available.
- Costly to license. Pricing is anywhere from $120,000 to over a million dollars
- Lack of independence from BCBS plans.

FAIR Health

Organization

FAIR Health is a non-profit organization whose mission is to increase transparency for health care costs and health insurance information through comprehensive data products and consumer resources. FAIR Health was established in 2009 in response to an investigation in New York into reimbursement practices that were based on data compiled and controlled by a major insurer.[10] The court mandated that an independent database of information in healthcare claims contributed by payers nationwide be developed with the support of independent experts. [11]

FAIR Health's Board of Directors includes representatives from the consumer, government, academic, health plan, and provider communities. Board members serve without pay and include physician and former Aetna CEO John W. Rowe and Nancy Nielsen, the former President of the AMA. FAIR Health has 80 employees and does not subcontract out to vendors. The organization is self-sustaining from the sales of services and data. Because FAIR Health is self-financed and its board serves voluntarily without compensation with representatives from consumers, academics, government, providers and health plans, the independence of the organization is firmly established.

Data

Sixty organizations, including national and regional health plans and employers, contribute medical claims data to build the FAIR Health commercial database. Most of these 60 organizations contribute data monthly and in a consistent manner. In addition, FAIR Health is a CMS Qualified Entity and thus has Medicare claims from 2013-2016. The commercial database includes 150 million covered lives, and 23 billion claims from 2002-2017. All 50 states and some territories are in the data base. Coverage is most scant in three small states – Montana, Wyoming, and Alaska. In areas where data are thin, FAIR Health uses imputation algorithms designed by statisticians and actuaries to account for shortcomings in the combination of CPT codes. The imputation algorithms are a means to predict the cost and utilization of services in areas where there are gaps in the data based on similar observations. Algorithms are vetted internally and sent to the FAIR Health Board for approval before use.

All data include information on the billed charges, but only 50 percent of claims have data on allowed charges. While only 50% of the data include both the allowed and billed charges, this is mitigated by FAIR Health's large sample size. 50% of claims is more than enough to perform a comparison of billed and allowed charges. Medical claims include data on specialty, place of service, date of service, and geographic location of the service. FAIR Health has a rigorous quality control review to ensure the

[10] "About FAIR Health." FAIR Health, Inc. Accessed February 15, 2017. http://www.fairhealth.org/About-FH

[11] Ibid

validity of the data. They check unit thresholds, codes, month-to-month contribution levels, and eliminate any extreme outliers from the database.

Availability of Data

FAIR Health maintains a public website, the FAIR Health Consumer Cost Lookup tool available at www.fairhealthconsumer.org, where consumers can look up the cost of medical procedures and related services such as ambulance services by geographic location. Consumers are limited to 20 searches per month. FAIR Health also leases de-identified claims databases, largely to governments and academic researchers. Twenty states and the General Accountability Office (GAO) use FAIR Health data.

Using a pricing model for each request, FAIR Health also reviews each application before signing a data use agreement. Most requests can be fulfilled in two-six weeks of time.

Strengths and Limitations

Strengths

- FAIR Health possesses the largest national database with quality control and current data.
- The organization's mission is to provide transparency.
- Pricing information is publically available on consumer-facing website, FAIR Health Consumer, available at www.fairhealthconsumer.org
- FAIR health employees 80 employees, has a distinguished Board that serves without pay, and does their data management in-house.
- FAIR Health is an independent organization with credible data. More than 20 governments and GAO have used the data.
- FAIR Health has data from every state.
- Data are accessible and available at a modest price.

Limitations

- Only 50 percent of claims have data on allowed charges.
- Where data are scant, uses imputation algorithm to impute data.

Truven Health Analytics

Organization

Truven MarketScan is a series of claims databases provided by Truven Health Analytics to provide researchers with patient centric data from over 230 million patients since 1995.[12] Truven's MarketScan databases were created to address the need for better healthcare data on privately insured Americans.[13] MarketScan is made up of a series of data sets. The five core data sets include commercial, Medicare supplemental, Multi-State Medicaid, Hospital Drug, and Primary Care EMR claims, with additional linked datasets available as well.[14] Data in Truven's MarketScan databases are reported to Truven by large employers, managed care organizations, hospitals, EMR providers, and Medicare and Medicaid programs.[15]

Truven's mission is to make healthcare better — lower costs, improved quality, and better results through the use of analytics. The company is owned by IBM. Senior management includes persons from the business and health care industries. Fees from users of Truven data and analytical services are the source of revenue for the firm. Hence, profitability largely determines business decisions.

Data

Truven does not identify the organizations contributing commercial medical claims or the number of organizations for this convenience sample. Some health plans who contributed data earlier dropped out in 2015 so the number of covered lives declined from 47 to 28 million persons. Large employers are now the predominate contributors of data. Large employers are likely to have their employees clustered around specific geographic areas. Data are scant in the South and Northwest. There are about 600 million medical claims per year and all include data on allowed and billed charges. Claims also include data on provider specialty, provider geographic location, date and place of service. Licensed data are de-identified at the provider level.

Organizations that contribute data do so in a timely but non-uniformed rate and in a standard format. The majority contribute data monthly. Truven releases data annually. There are no imputed values in the database. Truven data sets are widely used in the world of research and have been the data source for many peer-reviewed articles. U.S. government agencies, such as the Center for Disease Control, are users of CDC data.

[12] "Life Sciences." Truven MarketScan Databases. Accessed February 15, 2017. http://truvenhealth.com/markets/life-sciences/products/data-tools/marketscan-databases

[13] "The MarketScan Databases for Life Sciences Researchers." Truven Health Analytics. Accessed February 15, 2017. http://content.truvenhealth.com/rs/699-YLV-293/images/%7B87d8921a-c27c-4382-bd88-d8ec9011de70%7D_2016_Truven_Health_MarketScan_white_paper_for_Life_Sciences.pdf?aliId=1274509.

[14] "Life Sciences." Truven MarketScan Databases.

[15] "The MarketScan Databases for Life Sciences Researchers." Truven Health Analytics.

Availability of Data

Truven commonly leases data to interested parties. The cost of leasing is negotiated and dependent on the specific requirements of the user. Users pay for the data on a per study basis. Truven is able to deliver data within a few weeks from the initial request for data. Truven data are not oriented for benchmarking. Users cannot publish data at a metropolitan area without the permission of Truven.

Strengths and Limitations

Strengths

- Truven offers a large, high-quality database with data elements of interest with credibility in the research and policy worlds
- All claims include allowed charges and billed charges
- Data are updated annually with consistent data submitted across all plans

Limitations

- Truven is not in the business of using data for benchmarking; contributors are concerned that proprietary information will be used.
- Truven data are from a convenience sample that is from mostly large employers.
- Licensed data are de-identified at the provider level.
- Truven does not operate a publically available health cost comparison tool.
- Geographic limitations
  - Employer data tend to be clustered, resulting in limited data in some geographies.
  - Truven has limitations on the geographic levels that can be used in a study.

State All Payer Claims Databases:

NORC examined the size, accessibility, and cost of using state-run All Payer Claims Databases (APCDs). These databases collect much of the same health claims information at a state level. States have established APCDs to help fill information gaps needed to make effective health policy decisions, to support health care and payment reform initiatives, and to address the need for transparency in health care.[16] APCDs offer a unique advantage over non-state run databases, as they generally allow for consistent and uniform data submissions, and use the force of state law to overcome legal hurdles, such as HIPAA.[17] Many states mandate the submission of health care claims data to the state APCD.

APCDs' ability to mandate reporting from all health plans was recently dealt a blow after the Supreme Court decision *Gobeille v. Liberty Mutual Insurance Company* .[18] The court ruled that reporting of claims by self-insured plans are pre-empted by Employee Retirement Income Security Act (ERISA).[19] Liberty Mutual Insurance Company, a multi-state employer operating a self-insured health plan for its Vermont employees argued that the state APCD statute imposed a "reporting" requirement on its self-insured employer health plan, and that ERISA makes reporting the exclusive domain of the federal government.[20] The 2nd Circuit court ruled in favor of Liberty Mutual and the Supreme Court let the decision stand.[21] While APCDs continue to collect claims information, excluding self-funded plans limits the database significantly. Many large employers use self-funded plans for coverage. According to the Kaiser Family Foundation, 63% of workers covered by employer-based health insurance are covered by self-funded plans.[22] Given that a large proportion of workers are covered in self-funded plans, APCDs may have more limited information available than databases operated by other vendors. Further, large employers are more likely to obtain large discounts from providers. Hence, exclusion of self-insured plans may lead to biased estimates of "allowed charges."

[16] "The Value of All-Payer Claims Databases for Employers." APCD Council. April 27, 2016. Accessed March 29, 2017. https://www.apcdcouncil.org/publication/value-all-payer-claims-databases-employers.

[17] Feldman, Joan W., and William J. Roberts. "APCDs: One Solution to Obtaining Meaningful Performance Data." Shipman & Goodwin. Accessed March 29, 2017. http://www.shipmangoodwin.com/apcds-one-solution-to-obtaining-meaningful-performance-data.

[18] *Gobeille v. Liberty Mutual Insurance Company*, 577 U. S. ____ (2016)

[19] Curfman, Gregory. "All-Payer Claims Databases After Gobeille." Health Affairs. March 3, 2017. Accessed March 22, 2017. http://healthaffairs.org/blog/2017/03/03/all-payer-claims-databases-after-gobeille/.

[20] Feldman, Joan W., and William J. Roberts.

[21] Ibid.

[22] Claxton, Gary, Matthew Rae, Michelle Long, Nirmita Panchal, Anthony Damico, Kevin Kenward, and Heidi Whitmore. "2015 Employer Health Benefits Survey." The Henry J. Kaiser Family Foundation. September 14, 2016. Accessed April 04, 2017. http://kff.org/health-costs/report/2015-employer-health-benefits-survey/.

Cost of developing an APCD:

APCDs are developed in several phases, including planning, implementation, and information production.[23] Each phase includes a one-time start-up cost and ongoing costs for appropriation.[24] States can receive funding for APCDs from general appropriations, fee assessments on public and private payers, through Medicaid match, and data sales.[25] Many state APCDs also receive federal funds through grants from the Center for Medicare and Medicaid Services (CMS). Costs for APCD planning, implementation, and maintenance vary by state and are subject to the state health care market structure, population and coverage patterns, number of licensed payers, agency that hosts the APCD, and planned users and uses for the APCD and costs of data release.[26] Given that these factors can vary state to state, the cost of implementing an APCD is difficult to approximate. In Florida, a state that is in the process of implementing an APCD, the legislation creating the APCD authorized $3.1 million dollars from the Health Care Trust fund to the Agency for Health Care Administration to implement the APCD.[27] Additionally, the legislation authorized an additional $952,919 in recurring funds for the APCD.[28] States often contract with outside organizations to operate the APCD. For example, Tennessee signed a contract with Truven Health Analytics to operate the state's APCD for approximately $3 million dollars over four years.[29] For example, in Colorado, the cost of operating the APCD was$3.8 million in FY2016. [30] The state earned $2.4 million in earned revenue and $1.4 million in grant revenue, summing to a total of $3.8 in revenue.[31] The federal government also helps fund state APCD efforts. In Washington, no funding is allocated by the state for the APCD.[32] Washington receives $1.9 million from the two-year, U.S. Department of Health and Human Services CMS Rate Review Cycle III grant to the state Office of Financial Management to fund the APCD.[33] The Washington state Health Care Authority included an additional $6 million from the CMS State Innovation Model grant to support the APCD.[34] Overall, standardizing and comparing the costs of implementing an APCD between states is difficult to do. Factors such as how long the APCD has been operated, whether the APCD is funded by the state alone or through

[23] Love, Denise, and Emily Sullivan. "Cost and Funding Considerations for a Statewide All-Payer Claims Database (APCD)." APCD Council. July 06, 2015. Accessed March 29, 2017. https://www.apcdcouncil.org/publication/cost-and-funding-considerations-statewide-all-payer-claims-database-apcd.

[24] Ibid.

[25] Ibid

[26] Ibid.

[27] "CS/CS/HB 1175: Transparency in Health Car." Florida Senate. 2016 Legislature. https://www.flsenate.gov/Session/Bill/2016/1175

[28] Ibid.

[29] "Contract", Tennessee Health Information Committee, https://www.tn.gov/assets/entities/hcfa/attachments/TruvenHealthAnalytics14Executed.pdf, accessed via "Tennessee Health Information Committee." Tennessee Health Information Committee - TN.Gov. Accessed March 29, 2017. https://www.tn.gov/hcfa/article/tennessee-health-information-committee.

[30] "CO APCD Annual Report 2016." Center for Improving Value in Health Care. http://civhc.org/getmedia/80881590-f979-41b2-89dd-cb2bdaeb5424/FINAL-2016-CO-APCD-Annual-Report-with-Bookmarks.pdf.aspx/.

[31] Ibid.

[32] "Statewide All-Payer Health Care Claims Database, Report to the Legislature." Washington Office of Financial Management. December 2016. http://www.ofm.wa.gov/reports/AllPayerHCClaimsDatabaseReportToLegDec2016.pdf

[33] Ibid.

[34] Ibid.

federal grants, and whether the database is administered internally or through an outside vendor make it difficult to establish an adequate baseline cost of implementing an APCD.

State summaries

Interest for implementing APCDs is high and many states already have APCDs in place in some form. Currently, 15 states have APCDs in place and active. Eight have APCDs that are in the process of being implemented. 20 states are in the early stages of planning or have expressed interest in developing an APCD. Only seven states have no interest or have no activity in developing an APCD. Below, we summarize state's efforts to provide claims data through APCDs:

Arkansas. In 2013, Arkansas was awarded $3.1 million from a Cycle III grant from the Center for Consumer Information and Insurance Oversight to build an APCD.[35] Arkansas' APCD is overseen by the AR Insurance Department, with consultation from a 13-member advisory board comprised of four statutorily-named members and nine governor-appointed members, and the Arkansas Center for Health Improvement administers the APCD.[36] Arkansas does not have a data codebook available to determine if the necessary elements are included in the data. Arkansas does not operate a publically available cost comparison website based on the data in the APCD.

Colorado. Colorado's APCD officially launched in 2012 to provide transparent price, quality, cost of care and utilization information across Colorado.[37] Colorado's APCD receives no direct, ongoing operational state funding. [38] All funds must be raised by the Administrator of the Colorado APCD. [39] Colorado's APCD is funded through $1.4 million in grants and $2.4 million in earned revenue. [40] The APCD is administered by CIVHC, a non-profit, non-partisan organization established in 2008 by executive order by the governor.[41] Data include approximately 65% of the insured Coloradoans with claims from the largest 33 commercial health payers and Medicaid.[42] In addition to licensing data, Colorado's APCD also provide an online resource for consumers to look up medical prices. Data are available from 2011-2014 for commercial claims and Medicaid and include all of the necessary data elements. Licensing cost can vary depending on data needs. A user must fill out a data release application and data element dictionary for the state to review. The state then does a cost analysis for each request

[35] "Arkansas Rate Review Grants Award List." Centers for Medicare & Medicaid Services (CMS). September 19, 2014. Accessed April 05, 2017. https://www.cms.gov/cciio/Resources/Rate-Review-Grants/ar.html.

[36] "Governance." Arkansas APCD. Accessed March 29, 2017. https://www.arkansasapcd.net/Governance/.

[37] "Colorado." APCD Council. January 17, 2017. Accessed March 29, 2017. https://www.apcdcouncil.org/state/colorado.

[38] "CO APCD Annual Report 2016." Center for Improving Value in Health Care. http://civhc.org/getmedia/80881590-f979-41b2-89dd-cb2bdaeb5424/FINAL-2016-CO-APCD-Annual-Report-with-Bookmarks.pdf.aspx/.

[39] Ibid.

[40] Ibid..

[41] "About CIVHC." Center for Improving Value in Health Care. Accessed March 29, 2017. http://civhc.org/About-CIVHC.aspx/.

[42] "CO Medical Price Compare." CO Medical Price Compare. Accessed March 29, 2017. https://www.comedprice.org/#/home.

based on the specific scope and requirements of the project.[43] Colorado operates a publically available medical cost comparison website, CO Medical Price Compare available at www.comedprice.org, based on the claims data in the state's APCD.

Kansas. Kansas received $3.1 million in funding from Cycle III grants from the Center for Consumer Information & Insurance Oversight in 2013 to enhance the state's APCD. [44]Kansas' APCD is combined from two databases. Kansas' Division of Health Care Finance collects and maintains data from Medicaid, Chip, and the State Employee Health Plan, and the Kansas Health Insurance Information System, which includes health care data from individual and small-group private plans.[45] Kansas combined these datasets in 2010 into an APCD referred to as the Data Analytic Interface, which can be used to compare prices paid for health care services across insurance plans across time.[46] The APCD is used by the Kansas Health Data Consortium, a collaborative, multi-stakeholder advisory committee on data-driven policy with membership spanning across key sectors of the health and health care industry.[47] The Health Data Consortium uses the DAI to develop and review reports on health cost, utilization, service patterns, and other trends in the health care market. However, Kansas does not license its data to researchers outside of the consortium, and no data dictionary is available online to verify that it includes the required data elements. Kansas' data includes data from Commercial Payers and Medicaid and include Medical, Eligibility, Dental, and Pharmacy claims. [48]

Maine. Maine's APCD was established in 2002 under the Main Health Data Organization (MHDO).[49] The MHDO was created by the Maine Legislature in 1996 as an independent executive agency to collect clinical and financial health care information.[50] The MHDO's board is made up of a multidisciplinary representatives, including providers, the state of Maine, employers, consumers, and third party payers.[51] In 2013, Maine received $2.6 million in funding from a Cycle III grant from the Center for Consumer Information & Insurance Oversight.[52] The APCD collects claims from commercial insurance carriers, third party administrators (TPAs) and self-funded plans, pharmacy benefit managers (PBMs), dental benefit administrators, MaineCare (Maine Medicaid), and CMS (Medicare).[53] Maine's data includes all

[43] "Colorado All Payer Claims Database. FAQ Data Release and Pricing." Center for Improving Value in Health Care. http://civhc.org/getmedia/8666ca15-f5a0-431f-bcc4-0e62d975f510/CO-APCD-Data-Release-and-Pricing-FAQs.pdf.aspx/.

[44] "Kansas Rate Review Grants Award List." Centers for Medicare & Medicaid Services (CMS). September 23, 2013. Accessed April 05, 2017. https://www.cms.gov/cciio/Resources/Rate-Review-Grants/ks.html.

[45] "Health Care Market Reports." Kansas Department of Health and Environment. Accessed March 29, 2017. http://www.kdheks.gov/hcf/medicaid_reports/Health_Care_Market_Reports.html.

[46]"Health Care Market Reports." Kansas Department of Health and Environment.

[47] Ibid.

[48] "Kansas." APCD Council. December 16, 2015. Accessed March 29, 2017. https://www.apcdcouncil.org/state/kansas.

[49] "Maine." APCD Council. July 14, 2016. Accessed March 29, 2017. https://www.apcdcouncil.org/state/maine.

[50] "Claims Data Submitters." Maine Health Data Organization. Accessed March 29, 2017. https://mhdo.maine.gov/pugPage.htm.

[51] Ibid.

[52] "Maine Rate Review Grants Award List." Centers for Medicare & Medicaid Services (CMS). September 19, 2014. Accessed April 05, 2017. https://www.cms.gov/cciio/Resources/Rate-Review-Grants/me.html.

[53] Ibid.

necessary data elements except the allowed charge.[54] Any data files, reports, or tables can be generated for a rate of $80 per hour. [55] The price for licensing the data set varies depending on the dataset. The rate for data changes depending on the organization. For example, the cost for licensing a year's worth of medical claims for a nonprofit is $4,000, while for a commercial organization it is $10,000 for the same data.[56] In addition to licensing data, Maine offers a public-facing website, Compare Maine available at www.comparemaine.org, to compare health costs in the state.[57]

Maryland. Maryland's Medical Care Database (MCDB) is Maryland's APCD, which includes enrollment, provider, and claims data for Maryland residents enrolled in private insurance, Medicare, or Medicaid Managed Care Organizations.[58] Maryland was awarded $2.8 million in 2013 by CMS from a Cycle III grant to enhance their APCD. [59]Datasets in the MCDB include Member Eligibility, Professional Services, Institutional Services, Pharmacy, and Dental claims.[60] At this time, data are available from 2010 to 2014. Maryland's Professional Services data include all required elements with the exception of physician specialty.[61] To license Maryland's data, the application process includes a review by a Data Review Committee, Institutional Review Board (if required), and a review by the Maryland Health Commission. From there, a data use agreement is issued and the data are released.[62] The state requires ongoing reporting and monitoring on all active projects to ensure that data are used properly. [63] Similar to other states, the cost for licensing Maryland's data depends on the type of organization. For Maryland's Professional Services claims, the cost of licensing data per year is $8,000 for commercial organization and $4,000 for non-profit/academic organizations.[64]

Massachusetts. Massachusetts' APCD is operated by the Center for Health Information and Analysis (CHIA), an independent agency established in 2012 to serve as Massachusetts' hub for health care data and analytics to support policy development.[65] Information on funding for Massachusetts' APCD was not found. Massachusetts' APCD collects data from commercial payers, third party administrators and public

[54] NORC analysis of ME APCD databook, available via "Request Data or Reports." Maine Health Data Organization. Accessed March 30, 2017. https://mhdo.maine.gov/data_rqst_process.htm

[55] "Pricing Information." Maine Health Data Organization. Accessed March 29, 2017. https://mhdo.maine.gov/pricing_information.html.

[56] Ibid

[57] "Compare Costs of Healthcare Procedures and Quality of Care Across Maine." CompareMaine. Accessed March 29, 2017. http://www.comparemaine.org/?page=choose.

[58] "Medical Care Data Base." Maryland Health Care Commission. Accessed March 29, 2017. http://mhcc.maryland.gov/mhcc/pages/apcd/apcd_mcdb/apcd_mcdb.aspx.

[59] "Maryland Rate Review Grants Award." Centers for Medicare & Medicaid Services (CMS). September 19, 2014. Accessed April 05, 2017. https://www.cms.gov/cciio/Resources/Rate-Review-Grants/md.html.

[60] "MCDB Data Release." Maryland Health Care Commission. Accessed March 29, 2017. http://mhcc.maryland.gov/mhcc/pages/apcd/apcd_data_release/apcd_data_release_mcdb.aspx.

[61] NORC analysis of MD APCD codebook, available via "MCDB Data Release." Maryland Health Care Commission. Accessed March 30, 2017. http://mhcc.maryland.gov/mhcc/pages/apcd/apcd_data_release/apcd_data_release_mcdb.aspx

[62] "MCDB Data Release." Maryland Health Care Commission.

[63] Ibid.

[64] Ibid.

[65] "Mission & History." The Center for Health Information and Analysis. Accessed March 29, 2017. http://www.chiamass.gov/mission-and-history/.

programs (Medicare and MassHealth, Massachusetts' Medicaid program).[66] Massachusetts does license a limited dataset to non-government organizations that includes all of the necessary data elements. While Massachusetts' APCD makes data available for cost analysis, it does not provide a public transparency site of health costs. To license Massachusetts' APCD data, organizations must submit a data request, data management plan, and fee remittance request to the state. [67] To apply for restricted data, there is a $300 application fee and a $2,500 licensing fee for researchers.[68] The State will review the application and work with applicants to refine the application as needed to ensure that they meet regulatory requirements. [69] From there, the request is reviewed by the state's Data Privacy Committee, and a data use agreement is issued.[70]

Minnesota. Minnesota passed legislation in 2008 to create a system to provide greater transparency of provider cost and quality. [71]As part of the system, Minnesota developed an APCD to collect health claims from billing records. The state was awarded $3.1 million from a Cycle III grant by CMS in 2013 to conduct a study of how an APCD could enhance rate review activities.[72] A legislative mandate was redirected to a research and analytic agenda, to better inform health care planning and policy decisions.[73] Minnesota's APCD is run by the Minnesota Department of Health, which requires all health plans and third party administrators to submit encounter data every six months.[74] Minnesota's APCD also incorporates data from Medicaid and Medicare plans.[75] Minnesota's APCD includes data for services from 2009 through 2015.[76] Minnesota provides public use files for little or no cost, however the files do not include the allowed charge or the physician specialty.[77]

New Hampshire. New Hampshire's APCD began accepting claims in 2005 to better provide transparency in the commercial insurance system.[78] In 2013, New Hampshire was granted $3 million from CMS to enhance the state's APCD.[79] New Hampshire's APCD includes claims from Commercial

[66] "Massachusetts APCD." The Center for Health Information and Analysis. Accessed March 29, 2017. http://www.chiamass.gov/ma-apcd/.

[67] "Non-Government Agency APCD Requests." The Center for Health Information and Analysis. Accessed March 29, 2017. http://www.chiamass.gov/non-government-agency-apcd-requests.

[68] "957 CMR 5.00: Health Care Claims, Case Mix and Charge Data Release Procedures" The Center for Health Information and Analysis. Accessed April 6, 2017. http://www.chiamass.gov/assets/docs/g/chia-ab/16-13.pdf

[69] "Non-Government Agency APCD Requests." The Center for Health Information and Analysis.

[70] Ibid.

[71] Ibid.

[72] "Minnesota Rate Review Grants Award List." Centers for Medicare & Medicaid Services (CMS). September 19, 2014. Accessed April 05, 2017. https://www.cms.gov/cciio/Resources/Rate-Review-Grants/mn.html.

[73] "Minnesota All Payer Claims Database." MN APCD. http://www.health.state.mn.us/healthreform/allpayer/mnapcdoverview.pdf

[74] "All Payer Claims Database." Encounter Data Collection - Minnesota Dept. of Health. Accessed March 29, 2017. http://www.health.state.mn.us/healthreform/encounterdata/index.html.

[75] "Minnesota All Payer Claims Database." MN APCD.

[76] Ibid.

[77] NORC analysis of MN APCD codebook, available via "Currently Available Public Use Files." Minnesota Department of Health. Accessed March 30, 2017. http://www.health.state.mn.us/healthreform/allpayer/publicusefiles/about.html

[78] "New Hampshire." APCD Council. July 14, 2016. Accessed March 29, 2017. https://www.apcdcouncil.org/state/new-hampshire.

[79] "New Hampshire Rate Review Grant Award List." Centers for Medicare & Medicaid Services (CMS). September 19, 2014. Accessed April 05, 2017. https://www.cms.gov/cciio/Resources/Rate-Review-Grants/nh.html.

payers, third party/self-funded, Medicaid, and Medicare. [80] New Hampshire's APCD data are available in both public use and limited form with all necessary data elements included. Data sets may be requested through an application and approval process in which the requestor specifies and justifies the data elements to be included in the data set. No pricing information is available. New Hampshire does operate a transparency tool for consumers to look up health costs, which was developed by the New Hampshire Insurance Department based on data from the APCD, available at https://nhhealthcost.nh.gov/. [81]

Oregon. Oregon established it's APCD in 2009 as a way to measure health cost quality and utilization.[82] Oregon received approximately $3.6 million from CMS to invest in an APCD. [83]Oregon's Health Authority is responsible for hosting and maintaining the dataset.[84] Oregon's APCD includes medical and pharmacy claims, enrollment data, premium information, and provider information for commercial insurers, Medicaid, and Medicare.[85] Data submissions include "commercial health plans and third-party administrators (TPAs) with 5,000+ covered lives in Oregon, all pharmacy benefit managers (PBMs) in Oregon, any payer with a dual eligible special needs plans (SNPs) in Oregon, and any payers that participate in Oregon's health insurance exchange."[86] Additionally, the state provides data from Medicaid fee-for-service plans and coordinated care organizations while CMS provides claims for Medicare Parts A and B. [87] In Oregon's limited data set, all data elements are included with the exception of the allowed amount.[88] Oregon's data costs approximately $1,500 per year for payers of all medical claims.[89]

Rhode Island. Rhode Island's APCD was established in 2008 to identify health care needs, inform health care policy, and compare costs.[90] Funding information for Rhode Island's APCD was not found. Rhode Island's database includes data from 2011 to present for private health insurers and Medicaid. [91] Medicare FFS claims are available from 2011 to 2013. [92] Data are licensed to consumers, researchers, providers, health insurers and others to examine data on healthcare use, quality, and spending, and identify

[80] [80] "New Hampshire." APCD Council.

[81] "Compare Health Costs & Quality of Care in New Hampshire." NH Health Cost. Accessed March 29, 2017. http://nhhealthcost.nh.gov/.

[82] "Office of Health Analytics All Payer All Claims Reporting Program." Office of Health Analytics All Payer All Claims Reporting Program. Accessed March 29, 2017. https://www.oregon.gov/oha/analytics/Pages/All-Payer-All-Claims.aspx.

[83] "Oregon Rate Review Grants Award List." Centers for Medicare & Medicaid Services (CMS). September 19, 2014. Accessed April 05, 2017. https://www.cms.gov/cciio/Resources/Rate-Review-Grants/or.html.

[84] Ibid.

[85] "Oregon All Payer All Claims Database (APAC) An Overview." Oregon.gov. https://www.oregon.gov/oha/analytics/APACPageDocs/APAC-Overview.pdf

[86] Ibid.

[87] Ibid.

[88] NORC analysis of OR APCD data dictionary, available via "All Payer All Claims Data Requests." Oregon Office of Health Analytics. Accessed March 30, 2017. https://www.oregon.gov/oha/analytics/Pages/APAC-Data-Requests.aspx

[89] "Application for APAC Data Files." Oregon Health Authority. Accessed March 30, 2017. http://www.oregon.gov/oha/analytics/APACPageDocs/APAC-3.pdf

[90] "TITLE 23 Health and Safety. CHAPTER 23-17.17 Health Care Quality Program SECTION 23-17.17-9" Rhode Island State Code. Accessed March 29, 2017. http://webserver.rilin.state.ri.us/Statutes/TITLE23/23-17.17/23-17.17-9.HTM.

[91] "HealthFacts RI Database." State of Rhode Island: Department of Health. Accessed March 29, 2017. http://health.ri.gov/data/healthfactsri/.

[92] Ibid.

opportunities for improvement.[93] For academic researchers, government agencies and data submitters the cost of licensing Rhode Island's data is $7,000 for a single project license.[94] For other organizations, the cost is $21,000.[95] RI's APCD provides a series of datasets on eligibility, Medical Claims, members, Pharmacy claims, procedure codes, product codes, providers, and more.[96] Data include all required elements, but elements vary across datasets.

Tennessee. Tennessee's APCD has underwent numerous transitions since its beginning in 2009. Legislation for Tennessee's APCD was passed in 2009 with collection beginning the summer of 2010. [97] After implementing the contract, data from all payers were collected through 2011.[98] After the contract expired, the state experienced a lapse in collection. [99] The state received a $3.9 million dollar grant from CMS in 2011 to continue to support the state's APCD.[100] The state began a new contract in 2013, which would collect data in a modified format. [101] The Tennessee Health Information Committee oversees and approves the data management, reporting, and research activities of the APCD. [102] Currently, Tennessee's APCD is being implemented and data are not publically available.

Utah. The Utah All Payer Claims Database became the fifth operating APCD in the nation in September 2009.[103] Funding for the Utah APCD was not found. The APCD contains data from health insurer, Medicaid, and third party administrators in Utah. Claims in the APCD include Medical, Pharmacy, Dental, enrollment, and provider data.[104] The state's claim centric dataset has data available from 2013-2014 to be licensed. The Claims centric limited dataset includes all elements except the allowed charge, physician specialty, and geography. Utah also offers a Research Dataset that includes sensitive and detailed patient data linked over time.[105] These datasets review and approval by both an IRB and the Health Data Committee. [106] Licensing cost varies depending on data needs. Data can cost as little as

[93] Ibid.

[94] "HealthFacts RI Data Products Fact Sheet." Rhode Island Department of Health. Accessed March 29, 2017. http://health.ri.gov/publications/factsheets/HealthFactsDataProducts.pdf.

[95] Ibid.

[96] NORC analysis of RI APCD data dictionary, available via "Data Dictionary for the Rhode Island All-Payer Claims Database (RI APCD)." Rhode Island Executive Office of Health & Human Services. Accessed March 30, 2017. http://www.health.ri.gov/publications/metadata/HealthFactsLevel3ExtractsDataElementDictionary.pdf

[97] "Tennessee." APCD Council. March 15, 2017. Accessed March 29, 2017. https://www.apcdcouncil.org/state/tennessee.

[98] "Brief History of Tennessee's All Payer Claims Database." Tennessee Health Information Committee - TN.Gov. January 17, 2017. https://www.tn.gov/assets/entities/hcfa/attachments/HistOfAPCD.pdf

[99] Ibid.

[100] "Tennessee Rate Review Grants Award List." Centers for Medicare & Medicaid Services (CMS). May 06, 2013. Accessed April 05, 2017. https://www.cms.gov/cciio/Resources/Rate-Review-Grants/tn.html.

[101] Ibid.

[102] Ibid.

[103] "Utah." APCD Council. January 25, 2017. Accessed March 29, 2017. https://www.apcdcouncil.org/state/utah.

[104] "All Payer Claims Data." Office of Health Care Statistics. Accessed March 29, 2017. http://stats.health.utah.gov/about-the-data/apcd/.

[105] "Data Series." Office of Health Care Statistics. Accessed March 29, 2017. http://stats.health.utah.gov/about-the-data/data-series/.

[106] Ibid.

$2,000 for a Public, Single Use Sample file and as much as $30,000 for a private, multi-use research data set.[107]

Vermont. Vermont's APCD, VHCURES, allows for population-based analysis of health care system performance. [108] Vermont's Green Mountain Care Board assumed responsibility for VHCURES in 2013 and has worked to improve the quality of the information and ensuring appropriate access to the data. [109] Funding for the Vermont APCD was not found. The APCD includes data from health insurers, third party administrators, pharmacy benefit managers, self-insured plans, Medicare supplement, Medicare parts C and D.[110] VHCURES is overseen by Data Governance Council which oversees data quality, data privacy and security, financial stability of the VHCURES program, and data release.[111] VHCURES includes all of the necessary data elements, excluding the allowed charge.[112] The state licenses the data to state agencies 'at cost', reserves the right to charge fees for general purpose research, and limits the release of data to uses that benefit the public good.[113]

Virginia. Virginia's APCD was created in 2012 and is a voluntary program committed by Virginia's major health insurance companies.[114] Virginia's APCD is operated by Virginia Health Information (VHI), a non-profit organization that creates health information for businesses, consumers, governments, health insurance companies, and providers.[115] Funding for the Virginia's APCD was not found. VHI estimates that Virginia's APCD contains information for approximately 60-65% of Virginia's commercially insured residents. Records include paid claims from institutional encounters (hospital, surgery centers, etc.), medical professional services (such as doctor visits and imaging), pharmacy and other services. [116] Claims files include Medical Claims, Pharmacy Claims, Member Eligibility and Medical Provider. Costs for using the states data vary depending on data needs. Virginia's data can be accessed through the state's MedInisight platform. [117]

Washington. Washington's APCD is currently still in implementation. The state legislature passed a bill in 2015 initiating a statewide APCD administered by the state's Office of Financial Management through

[107] Ibid.

[108] "Vermont Health Care Uniform Reporting and Evaluation System – VHCURES." Green Mountain Care Board. Accessed March 29, 2017. http://gmcboard.vermont.gov/hit/vhcures.

[109] Ibid.

[110] "VHCURES History" Green Mountain Care Board. Accessed March 29, 2017. http://gmcboard.vermont.gov/hit/vhcures/history.

[111] Ibid.

[112] NORC analysis of VT Data dictionary, available via "VHCURES Claims Submission Information." Green Mountain Care Board. Accessed March 30, 2017. http://gmcboard.vermont.gov/hit/vhcures/data-user-information

[113] "VHCURES DATA REQUEST INFORMATION." Green Mountain Care Board. Accessed March 29, 2017. http://gmcboard.vermont.gov/hit/vhcures/data-request-info

[114] "All Payer Claims Database (APCD)." Virginia Health Information. Accessed March 29, 2017. http://vhi.org/APCD/.

[115] "Overview of the Virginia All Payer Claims Database." Virginia Health Information. http://vhi.org/flyers/APCD%20Overview.pdf

[116] Ibid.

[117] Ibid, "All Payer Claims Database (APCD)." Virginia Health Information.

its Center for Health Systems Effectiveness.[118] As previously mentioned, Washington receives $1.9 million from the two-year, U.S. Department of Health and Human Services CMS Rate Review Cycle III grant to the state Office of Financial Management to fund the APCD.[119] Washington's APCD is governed by two committees. One committee focuses on data policy issues, while the other focuses on data release processes and requests. [120] Committee members include multi-disciplinary stakeholders such as provider, hospital, public health, health-maintenance organization, purchaser, and consumer stakeholder groups, and representatives from the two largest insurance carriers submitting data to the APCD.[121] The state is still implementing its system and data are projected to begin being reported in March 2017.[122]

[118] "Washington All Payer Claims Database." Oregon Health & Science University. Accessed March 29, 2017. http://www.ohsu.edu/xd/research/centers-institutes/center-for-health-systems-effectiveness/wa-apcd-governance-information/index.cfm.

[119] Ibid.

[120] "WA-APCD Rules and Governance." Oregon Health & Science University. Accessed March 29, 2017. http://www.ohsu.edu/xd/research/centers-institutes/center-for-health-systems-effectiveness/wa-apcd-governance-information/rules-governance.cfm.

[121] "WA-APCD Rules and Governance." Oregon Health & Science University.

[122] Ibid.

Summary and Recommendation

Based on telephone interviews, a review of vendor websites and grey literature, and a review of state APCD efforts, this report assesses the comprehensiveness and validity of multiple national databases comprised of medical claims files. NORC evaluated these databases based on features including:

- The size and scope of the database
- Availability of both allowed and billed charges
- Permissibility of benchmarking
- Cost of licensing the data
- Overall independence of vendors

For the purposes of identifying a standard benchmark that draws on comprehensive data, NORC recommends the use of a vendor with national data coverage over state APCDs. APCD data and access processes are not uniform across, rendering a nation-wide standard and process for analysis of claims and costs associated with the establishment and maintenance of the databases very difficult. Additionally, with the recent *Gobeille v. Liberty Mutual Insurance Company* court decision, states cannot mandate data reporting from ERISA-regulated self-funded plans, making it more difficult to apply benchmarks based on these data

Recommendation

Exhibit A summarizes our findings for each of the vendors. We recommend the use of the FAIR Health dataset for benchmarking physician fees. FAIR Health met the most criteria for selection. Importantly, other vendors do not license data for benchmarking purposes. FAIR Health also has the largest and most geographically widespread database, the cost of using FAIR Health data is lower than for other vendors, and the organization is financially independent from the issuers that submit claims.

To conclude, FAIR Health offers:

- A national dataset with over 150 million covered lives.
- Both Commercial and Medicare claims.
- Data include allowed and billed charges.
- Easily accessible data and moderately priced.
- Transparency is its primary business.

Exhibit A: Comparison of Claims Database Vendors

Vendor	Mission of Organization	Board of Directors	Data Contributors	Size and Years of Data Base	% of claims with allowed Charges	Geographic Areas of Scant Coverage	Limitations on Data use	Accessibility of Data	Public Cost Transparency Tool	Availability for benchmarking
FAIR Health	To increase transparency in healthcare costs and health insurance information through comprehensive data products and consumer resources.	Conflict free board where members serve without compensation; representatives from consumers, policy, Government, plans, and providers.	60 national and regional health plans and employers.	23 billion commercial claims from all states; 2002-2017; all states; also Medicare claims from 2013-2016.	50%	Montana, Wyoming, and Alaska.	HIPAA; won't release certain CPT codes.	Free data on cost of procedures on website; license data to government and academic researchers.	FAIR Health Consumer, available at: http://fairhealthconsumer.org/	Available.
Blue Health Intelligence	Provide Analytics, data consulting, and software services to BC plans. Provide analytic consulting to the Blue Cross Association. License data from the BCBS plans.	BHI has an independent CEO, but is partially owned by BC owners. Board is made up of representatives from BCBS plans.	30 of 34 BCBS plans.	150 million members over 10 years.	100%, but BHI is not allowed to show the combination.	The west coast and areas that are not overwhelmingly BCBS.	Data are proprietary and are not licensed for benchmarking.	Cost of data ranges depending on the data needs. Can cost anywhere from $120,000 to over $1 million.	A transparency tool is available but only to BCBS members.	Not available.

Vendor	Mission of Organization	Board of Directors	Data Contributors	Size and Years of Data Base	% of claims with allowed Charges	Geographic Areas of Scant Coverage	Limitations on Data use	Accessibility of Data	Public Cost Transparency Tool	Availability for benchmarking
HCCI	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.	HCCI's governing board consists of academics, health care experts, and private industry consultants.	Aetna, Humana, Kaiser Permanente, and United Healthcare.	HCCI's database includes claims going back to 2007 and has claims for over 50 million people commercially, and nearly 100 million including Medicare.	100%	States that are overwhelmingly Blue Cross.	Not licensed for benchmarking purposes. Pricing is publically available on Guroo.	Data are licensed to federal agencies and researchers for the purpose of hypothesis testing only. Proposals are reviewed by an internal review committee. Process takes between 30 and 60 days and costs ~ $50,000.	Guroo, accessible via https://www.guroo.com/	Not available.
Truven	To lower health costs, improve quality, produce better health outcomes.	Truven's management includes experts from the health care industry and private business leaders.	Primarily employer provided data, but does include some Medicare claims data.	Convenience sample with approximately 600 million claims in a single year. Data are available as far back as 1995.	100%	Employer data tend to be clustered, resulting in limited data in some geographies.	Not in the business of using data for benchmarking; concerns of contributors that proprietary information will be used.	Data are licensed to government organizations, non-profits, and academics. Pricing of data depends on the use of the data. Truven puts together an estimate based on data needs and mails a USB drive with the data once a contract is signed.	Not available.	Not available.

Exhibit B: Comparison of State APCDs

State	Type of Claims Data Available	Has a Public Transparency Tool?	Licensing Cost	Data Elements
Arkansas	--	No	--	Unknown
Colorado	--	Yes, available at https://www.comedprice.org/	Varies based on data needs	Allowed charge, Billed charge, Physician Specialty, Geographic Location, Place of Service, Date of Service
Kansas	Medical, Eligibility, Dental, and Pharmacy claims	No	Does not license its data to researchers outside of the consortium	--
Maine	The APCD collects claims from commercial insurance carriers, third party administrators and self-funded plans, pharmacy benefit managers , dental benefit administrators, MaineCare (Maine Medicaid), and Medicare	Yes, available at www.comparemaine.org	$4,000 (per year for non-profit institution)	Billed charge, Physician Specialty, Geographic Location, Place of Service, Date of Service
Maryland	Enrollment, provider, and claims data for Maryland residents enrolled in private insurance, Medicare, or Medicaid Managed Care Organizations	No	$4,000 (per year for non-profit institution)	Allowed charge, Billed charge, Geographic Location, Place of Service, Date of Service
Massachusetts	MA's APCD collects data from commercial payers, third party administrators and public programs such as Medicare and MassHealth, and Massachusetts' Medicaid program.	No	$300 application fee and costs $2,500 to license the data for researchers	Allowed charge, Billed charge, Physician Specialty, Geographic Location, Place of Service, Date of Service
Minnesota	Medicaid and Medicare plans	No	Only public use files available for little or no cost	Billed charge, Geographic Location, Place of Service, Date of Service

New Hampshire	Claims from Commercial payers, third party/self-funded, Medicaid, and Medicare	Yes, available at https://nhhealthcost.nh.gov/	--	Allowed charge, Billed charge, Physician Specialty, Geographic Location, Place of Service, Date of Service
Oregon	Medical and pharmacy claims, enrollment data, premium information, and provider information for commercial insurers, Medicaid, and Medicare.	No	$1,500 per year for payers of all medical claims	Billed charge, Physician Specialty, Geographic Location, Place of Service, Date of Service
Rhode Island	Eligibility, Medical Claims, members, Pharmacy claims, procedure codes, product codes, providers, and more	No	$7,000 for a single project license. For other organizations, the cost is $21,000.	Allowed charge, Billed charge, Physician Specialty, Geographic Location, Place of Service, Date of Service
Tennessee (In Implementation)	--	--	--	--
Utah	Medical, Pharmacy, Dental, enrollment, and provider claims	No	Varies. (Data can cost as little as $2,000 for a Public, Single Use Sample file and as much as $30,000 for a private, multi-use research data set.)	Billed charge, Place of Service, Date of Service
Vermont	Health insurers, third party administrators, pharmacy benefit managers, self-insured plans, Medicare supplement, Medicare parts C and D	No	Varies based on data needs.	Billed charge, Physician specialty, Geographic Location, Place of Service, Date of Service
Virginia	Medical Claims, Pharmacy Claims, Member Eligibility and Medical Provider	No	Varies based on data needs	--
Washington (In Implementation)	--	--	--	--

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