

## Collecting Health Data: All-Payer Claims Databases

### Cost Containment Strategy and Logic

In recent years, several states have established databases that collect health insurance claims information from all health care payers into a statewide information repository. Known as “all-payer claims databases” or “all-payer, all-claims databases,” they are designed to inform cost containment and quality improvement efforts. Payers include private health insurers, Medicaid, children’s health insurance and state employee health benefit programs, prescription drug plans, dental insurers, self-insured employer plans and

Medicare (where it is available to a state). The databases contain eligibility and claims data (medical, pharmacy and dental) and are used to report cost, use and quality information. The data consist of “service-level” information based on valid claims processed by health payers. Service-level information includes charges and payments, the provider(s) receiving payment, clinical diagnosis and procedure codes, and patient demographics. To mask the identity of patients and ensure privacy, states usually encrypt, aggregate and suppress patient identifiers.

***Some states are using all-payer claims databases to identify potential areas for cost savings. It is still too early, however, to determine how effective databases are in helping states shape successful cost containment efforts.***

**Table 1. Benefits of All-Payer, All-Claims Data Collection Programs**

#### Businesses

- Helps businesses know where they stand with respect to their coverage’s costs and included services.
- Provides access to information that gives businesses a better negotiating position.
- Allows businesses to choose insurance products for employees based on price and quality.

#### Consumers

- Provides consumers with access to information to help them make informed decisions with their health care providers so they can determine which providers and treatments are most effective and efficient.

#### Providers

- Supports provider efforts to design targeted quality improvement initiatives.
- Enables providers to compare their performance with that of their peers.

#### Policymakers

- Enables [the state] to identify communities that provide cost-effective care and learn from their successes.
- Allows targeted population health initiatives.
- Allows reform efforts to be evaluated so successful initiatives can be identified and replicated.
- Allows identification of opportunities for further reform.

Source: Oregon Health Fund Board, “Aim High: Building a Healthy Oregon—Final Report,” November 2008, [http://www.oregon.gov/OHPPR/HFB/docs/Final\\_Report\\_12\\_2008.pdf](http://www.oregon.gov/OHPPR/HFB/docs/Final_Report_12_2008.pdf).

All-payer claims databases alone are not a means of controlling costs. Rather, they provide detailed information to help design and assess various cost containment and quality improvement efforts. By collecting all claims into one data system, states gain a complete picture of what care costs, how much providers receive from different payers for the same or similar services, the resources used to treat patients, and variations across the state and among providers in the total cost to treat an illness or medical event (e.g., a heart attack or knee surgery). In turn, businesses, consumers, providers and policymakers can use the information to make better-informed decisions about cost-effective care (Table 1). All-payer claims databases also are an important source of information for designing and implementing payment and delivery system reforms, such as pay-for-performance, episode-of-care payments, global payments, medical homes and accountable care organizations (all of which are discussed in other briefs in this series).

### Target of Cost Containment

Studies confirm the United States spends significantly more on health care than other countries but, on the whole, does not produce better results for patients; it does not receive equivalent value for each health care dollar. Researchers estimate that up to 30 percent of spending on health care is wasted.<sup>1</sup>

Without comprehensive data on costs, components, results and demographics of care, it is difficult to identify and eliminate waste. Without reliable information about how and where health care dollars are spent and how patients move through the system, states cannot design effective programs to address both unnecessary and inadequate care to realize health care

system savings. In some cases, all-payer claims databases can be used to identify the most cost-effective providers and methods of care. They also can provide valuable information to assess the relationship between total care costs, prices, use and service intensity, on the one hand, and quality and results of care for different providers, treatments and populations, on the other. Due to data limitations, not all these applications may be possible.

## State Examples

■ As of December 2009, all-payer claims databases were operating or under development in Kansas, Maine, Maryland, Massachusetts, Minnesota, New Hampshire, Oregon, Tennessee, Utah and Vermont. The all-payer claims databases in Maine, Maryland and New Hampshire were established partially in response to escalating health care costs and premiums.

■ Most state all-payer claims databases have a governing board or advisory committee that administers or provides recommendations on the operation of, and reports to be generated from, the databases. The committees usually include directors of state health agencies and representatives of key stakeholder groups, such as health insurers, hospitals, physicians, employers and consumers. Some states out-source data management and analytics. Others conduct all or some of the activities in-house. Efforts are under way to standardize data collection processes to make it easier for insurers that operate in more than one state to participate and allow for cross-state data applications and analyses.

■ States that require payers to submit claims data often have statutory penalties for failure to do so in a timely manner (e.g., \$1,000 for each week of delay in Massachusetts, \$500 per day in Oregon and \$100 per day in Tennessee).

■ Legislation enacted in 1995 established the Maine Health Data Organization (MHDO).<sup>2</sup> Maine is one of 30 states where health data organizations collect and disseminate health care data for policy and market uses. As with other state data organizations, Maine's reporting systems consist of hospital financial and organizational data (including inpatient, outpatient and emergency department data); non-hospital ambulatory service data; and quality data. In 2003, Maine became the first state to require all payers to report claims data.<sup>3</sup>

Today, MHDO has nine full-time-equivalent employees and an annual budget of about \$1.8 million. Several studies have used MHDO data to identify areas of the health care system that could benefit from specific cost containment efforts. One study, for example, used MHDO data to identify significant unwarranted variation in use and costs of care across the state.<sup>4</sup> It concluded that, if potentially avoidable inpatient use and high-cost, high-variation outpatient use were reduced by 50 percent, medical spending by commercial health payers could

be reduced by 11.5 percent, and Medicaid spending could be reduced by 5.7 percent. A second study showed Maine uses 30 percent more emergency services than the national average.<sup>5</sup> Researchers estimated health care payers in Maine could save \$115 million annually by reducing avoidable emergency department use. Maine plans to use its claims database "to identify specific inefficiencies to start working with stakeholders on levers to reduce waste."<sup>6</sup>

■ A 2003 New Hampshire law created the New Hampshire Comprehensive Health Information System (CHIS),<sup>7</sup> which consists of claims and eligibility data from Medicaid and commercial payers. A website, New Hampshire HealthCost, uses CHIS data to provide comparative information to consumers and employers about the estimated amount a hospital, surgery center, physician or other health care professional receives for its services. HealthCost provides information specific to an insured person's health benefits coverage and also shows health costs for uninsured patients. Employers can use the website's Benefit Index Tool to compare carriers' health plan premiums and benefits. CHIS data are used to produce health care cost, quality and use reports. One report, for example, found that Medicaid members who received primary care in 2006 incurred \$4.1 million for outpatient emergency department visits for conditions more appropriately treated in a primary care setting.<sup>8</sup> A second, related report found that Medicaid patients who were frequently treated in the emergency department often were seen for conditions that probably could have been treated in a primary care office or clinic.<sup>9</sup> An estimated \$2.1 million could have been saved if each frequent emergency department user had made just one less outpatient emergency room visit during 2006.

■ A 1993 Maryland law created the Maryland Medical Care Data Base,<sup>10</sup> which includes health care practitioner claims (e.g., physician, podiatrist, nurse practitioner) and pharmacy services. Payers that collect more than \$1 million in health insurance premiums annually must submit claims data. Medicare claims also are part of the database. Although the program has access to Medicaid claims, they are not part of the database. The Maryland Health Care Commission uses claims data to report costs and use of professional health services, including variations in charges. A November 2009 report, for example, analyzed expenditures for professional services by privately insured patients between 2006 and 2007.<sup>11</sup> The report found average professional services expenditures grew 3 percent in 2007, mainly as a result of increases in the number of services per user as opposed to increases in health care prices.

■ Several states are using their all-payer claims databases for specific cost containment-related initiatives. Utah plans to use claims data to compare the cost of caring for newborns whose mothers had limited or no prenatal care to mothers who had the recommended number of prenatal visits. Kansas intends

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to use data from its all-payer claims system to develop cost-saving initiatives in its Medicaid or state employee health plan by the summer of 2011.

### Non-State Examples

■ The Wisconsin Health Information Organization (WHIO), a private nonprofit organization, is comprised of multiple payers that voluntarily submit claims data to the WHIO Health Analytics Exchange. The organization was incorporated in late 2006 by insurers, employers and providers (e.g., Anthem Blue Cross Blue Shield of Wisconsin, Humana, Greater Milwaukee Business Foundation on Health, Wisconsin Medical Society and Wisconsin Hospital Association). In 2007, the Wisconsin Department of Health and Family Services and Wisconsin Department of Employee Trust Funds became members. Currently, WHIO receives data from 29 percent of health care claims in the state and has commitments from Medicaid and other health plans for submission of claims data that will bring the total to more than 50 percent of the population in 2010. WHIO's goal is to use data to improve the quality, affordability, safety and efficiency of health care delivered to patients in Wisconsin.

■ The U.S. Department of Health and Human Services plans to build a nationwide all-payer claims database consisting of a representative sample of the population. The data will be used to analyze and compare the effectiveness of medical treatments for various conditions. The department posted a pre-solicitation in December 2009 for "a targeted design study to inform the creation of such a database and supporting services, methods, and skills."<sup>12</sup>

### Effectiveness of Cost Containment Approach

It is still too early to assess how effectively state all-payer claims databases can help states control costs. Most programs have not been in use long enough to determine their effectiveness in shaping successful cost containment efforts. To date, all-payer claims database programs have not focused on cost containment per se. Rather, the focal point has been using claims information to investigate statewide variations in costs and health care use and publishing data that allow the public to compare health care prices and quality. Some states (e.g., Massachusetts and New Hampshire) have used claims data to identify potential areas for cost savings.

■ At least one state—New Hampshire—has used its all-payer claims database to assess the effect on prices over time of publishing comparative health service prices. The analysis was intended to determine the effect of the state's HealthCost website on prices for health care procedures shown on the website. Before HealthCost was launched, some suggested it could encourage price competition and help slow price increases for procedures listed on the website. Others said higher prices could result due to provider access to their competitors' rates. Still others said prices could become more consistent as providers with high rates lowered them and providers with low rates moved to the mean. In fact, the analysis found no demonstrable effect on providers' prices over time.<sup>13</sup>

■ Evidence exists that analyses of claims data can help evaluate programs that are designed to control costs. A private sector study published in 1989 used claims data to assess the effect on costs of using primary care physicians as gatekeepers in managed care programs.<sup>14</sup> Although researchers did not have access to an all-payer claims database, they used four years of claims data from a large insurer to conduct their study. They found gatekeeping resulted in lower costs during the first year, primarily due to reduced use of specialists, but costs rose during the second year to just below indemnity (i.e., fee-for-service) plan levels.

### Challenges

Several challenges exist to setting up all-payer claims databases.

■ Providers may object to payers reporting data about their practices. They may be concerned about how the data will be used, whether it will accurately reflect prices and quality, and if it will account for variations in the complexity of their cases.

■ Consumers may be concerned about the privacy and security of their information, although this often is explicitly addressed in state authorizing legislation and regulations.

■ Large, multi-state insurers, concerned about administrative costs of complying with various state database requirements, may lobby for states to harmonize rules and procedures.

■ A state may not be able to obtain data from employers that have self-insured health plans unless the information is available from the third-party administrators of such plans. Some employers, however, may voluntarily submit claims data, since it is in their interest to compare the prices they pay with what others pay. Information about all users of the health system should be—but often is not—in the database to provide a complete picture of health care use and cost. For the most part, states do not have access to claims data for Medicare patients and have either no or limited data about uninsured patients.

■ The cost of establishing and maintaining an all-payer claims database and publishing and analyzing database information can be significant. Vermont estimated start-up costs for its database would be approximately \$500,000 for FY 2009. The Utah Legislature appropriated \$625,000 in 2008 to launch its all-payer claims database; annual costs are projected to be \$1 million, paid for primarily with state and Medicaid matching funds. In 2008, the Oregon Health Fund Board suggested investing \$400,000 in state funds and \$300,000 in federal funds to establish a database.

### Complementary Strategies

All-payer claims databases provide valuable information for structuring and evaluating a number of cost containment strategies. Strategies include payment reforms, such as episode-of-care and global payments; and delivery system reforms, such as medical homes, care coordination, chronic disease management and broad-scale health information technology projects (which are the subject of other briefs in this series).

## For More Information

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NCSL has posted supplemental materials and 2010 updates on this topic online at <http://www.ncsl.org/?tabid=19929>.

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## Notes

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6. Peter Kraut, "Dirigo Health Reform: Financing Access Expansion Through Cost Containment Initiatives," PowerPoint presentation, State Coverage Initiatives Summer Workshop for State Officials, San Francisco, July 31, 2008.

7. 2005 N.H. Laws, Chap. 248-19.

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11. Maryland Health Care Commission Center for Analysis and Information Services, Practitioner Utilization: Trends Among Privately Insured Patients, 2006-2007 (Baltimore: MHCC, November 2009); [http://classic.netaddress.com/tpl/Info/123WHIAJT/Popup?hidden\\_\\_url=http%3A%2F%2Fmhcc.maryland.gov%2Fhealth\\_care\\_expenditures%2Fexputil2009%2Freport.pdf](http://classic.netaddress.com/tpl/Info/123WHIAJT/Popup?hidden__url=http%3A%2F%2Fmhcc.maryland.gov%2Fhealth_care_expenditures%2Fexputil2009%2Freport.pdf).

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### About this Project

NCSL's Health Cost Containment and Efficiency Series describes multiple alternative state policy approaches, with an emphasis on documented and fiscally calculated results. The project is housed at the NCSL Health Program in Denver, Colorado. It is led by Richard Cauchi, program director, and Martha King, group director, with Barbara Yondorf as lead researcher.

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