All-Payer Claims Databases: State Initiatives to Improve Health Care Transparency

Denise Love, William Custer, and Patrick Miller

ABSTRACT: States are facing increasing health care challenges, from variable quality of care to ever-increasing costs. Comprehensive information on disease incidence, treatment costs, and health outcomes is essential for informing and evaluating state health policies, but it is not readily available. To address these information needs, some states are developing all-payer claims databases (APCDs), and these systems are proving to be valuable information sources. As more states implement APCDs, efforts will be made to standardize common data elements that will improve the comparability of data from state to state. The National Association of Health Data Organizations (NAHDO) and the Regional All Payer Healthcare Information Council (RAPHIC) are coordinating a multistate effort to support state APCD initiatives and shape state reporting systems to be capable of supporting a broad range of information needs. This brief is based on this ongoing work with states and reflects current knowledge about states’ APCD initiatives.

OVERVIEW

As health care reform initiatives are enacted across the country, states have an unprecedented opportunity to make lasting, effective policy decisions. But such decisions require information, and health care data are notoriously opaque where they are available at all. The lack of comparable, transparent information is an obstacle all health care stakeholders have historically faced in making policy and market decisions. Transparent data not only contribute to making effective policy decisions, they also give consumers the tools to make informed decisions about their own health care; consumers’ need for these data, particularly on costs and quality, will only increase as consumers begin to take a more active role in their health care decisions. The broad availability of health care data has been demonstrated to improve quality, and states that have access to comprehensive information are in a position to enact better policies now and to track these policies’ impact and effectiveness over time.
To address their need for comprehensive information about health and health care, a growing number of states are developing what are known as all-payer claims databases (APCDs). Every health encounter creates a claim for payment, and both public and private insurance plans routinely aggregate these claims data into their own administrative databases. APCDs combine data from all payers in a state, giving policymakers statewide information on costs, quality, utilization patterns, and both access and barriers to care, as well as numerous other health care measures. And when these data are made publically available, consumers and purchasers also have the tools they need to compare prices and quality as they make health care decisions. APCDs are proving to be powerful tools for all stakeholders in states where they are being used, filling in longstanding gaps in health care information. They include data on diagnoses, procedures, care locations, providers, and provider payments, and offer both baseline and trend data that will guide policymakers and others through the transitions that health care reform will bring in years to come. As with all data sets, there are limitations to APCD data, but capturing information from most if not all of the insured encounters in a state can still create a powerful information source.

While APCDs have undeniably proven to be valuable where they are in use, their development and implementation require states to resolve the numerous political and technical challenges associated with large-scale information systems. Such challenges include engaging and educating all major stakeholders, determining governance and funding, identifying data sources, and determining how the data will be managed, stored, and accessed. In October 2009, the National Association of Health Data Organizations (NAHDO), the Regional All Payer Healthcare Information Council (RAPHIC), The Commonwealth Fund, and the AcademyHealth State Coverage Initiative Program held an APCD conference in Alexandria, Virginia, that brought together experts from the federal, state, and private sectors to examine some of the political and technical issues associated with state-based APCD implementation.

Policymakers, consumers, purchasers, providers, and other health care stakeholders are currently using APCDs in Kansas, Maine, Maryland, Massachusetts, Minnesota, New Hampshire, Utah, and Vermont, and these databases will soon be available in Colorado, Oregon, and Tennessee. And voluntary (that is, not state-run or state-mandated) initiatives have been established in Louisiana, Wisconsin, and Washington State to aggregate claims data with the primary objective of improving market and purchasing decisions. Exhibit 1 lists the major APCD initiatives, the year data collection began for each (the year “went live”), and the earliest year for which data was retrieved to populate their systems.

There are numerous voluntary APCD initiatives across the country that are not discussed in this brief. Anecdotally, most of these cover a limited area or set of claims data and are not being carried out in direct collaboration with state reporting entities. This brief is not meant to exclude the important work of these voluntary efforts, but it does focus on current state-run APCD initiatives and the private initiatives fulfilling similar functions in collaboration with the state.

**ABOUT APCDs**

All-payer claims databases are emerging to support health care transparency and reform initiatives in states. The definition of an APCD for this paper—developed by NAHDO and RAPHIC—is: databases, created by state mandate, that typically include data derived from medical claims, pharmacy claims, eligibility files, provider files, and dental claims from private and public payers. In states without a legislative mandate, there may be voluntary reporting of these data.

“The All-Payer Database will play an important role by providing consumers, business owners, and policymakers with the tools to make wise decisions.”

—Rep. David Clark (R-Santa Clara), Co-Chair, Utah Health Reform Task Force

Source: 2008 Utah Health Data Committee Biennial Report.
Private payers include insurance carriers, third-party administrators, and pharmacy benefit managers. Public payers include Medicaid, Medicare, Medicare Part D, and possibly, in the future, TRICARE, and the Federal Employees Health Benefits Program (FEHBP).\(^1\)\(^2\)

### THE BENEFITS OF APCDs

Current state data systems leave critical gaps in information. In 2010, 48 states have hospital discharge data reporting programs that typically include statewide all-payer, all-patient data for inpatient hospital stays. The data provide important population-based information on patient demographics, diagnoses and procedures, use of hospital services, and total charges incurred. As more care has shifted to outpatient settings, 32 states have added ambulatory treatment center data and 30 states now collect emergency department encounters. As valuable as these data are for policy and market purposes, they have important limitations. Missing from hospitalization data sets are the actual payments to the facility, as well as data from the majority of ambulatory care and pharmacy services, which combined represent greater expenditures than the other categories.

States are also typically unable to capture Medicare and Medicaid claims data. States that capture a unique patient identifier (such as an encrypted social security number or other identifying information) can link commercial supplemental policy data with Medicare data, but will eventually need Medicare Part A and Part B information in order to build a complete picture of the 65-and-over population; without Medicare data, states are missing a huge population in terms of health care utilization, cost, and outcomes. Meanwhile, state Medicaid data can provide a complete picture of enrollees’ health care use, but Medicaid represents only a small portion of a state’s population, and strict eligibility requirements result in high migration rates; without commercial market claims data, it isn’t possible to understand where patients obtain care

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**Exhibit 1. States with APCDs**

<table>
<thead>
<tr>
<th>State</th>
<th>Agency or organization responsible for APCD</th>
<th>Year system went live</th>
<th>Earliest year of historical data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kansas</td>
<td>Kansas Health Policy Authority - Data Consortium</td>
<td>2010</td>
<td>2006</td>
</tr>
<tr>
<td>Maine</td>
<td>Maine Health Data Organization</td>
<td>2003</td>
<td>2003</td>
</tr>
<tr>
<td>Maryland</td>
<td>Maryland Health Care Commission</td>
<td>2000</td>
<td>1998</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>Massachusetts Division of Health Care Finance and Policy</td>
<td>2008</td>
<td>2008</td>
</tr>
<tr>
<td>Minnesota</td>
<td>Minnesota Department of Health</td>
<td>2009</td>
<td>2008</td>
</tr>
<tr>
<td>Oregon</td>
<td>Oregon Health Policy and Research - Research and Data Unit</td>
<td>2010 expected</td>
<td>2010</td>
</tr>
<tr>
<td>Tennessee</td>
<td>Tennessee Department of Commerce and Insurance/ Division of Health Planning</td>
<td>2010 expected</td>
<td>2009</td>
</tr>
<tr>
<td>Utah</td>
<td>Utah Office of Health Care Statistics - All Payer Database</td>
<td>2009</td>
<td>2007</td>
</tr>
<tr>
<td>Vermont</td>
<td>Vermont Department of Banking, Insurance, Securities, and Health Care Administration</td>
<td>2008</td>
<td>2007</td>
</tr>
<tr>
<td>Louisiana*</td>
<td>Louisiana Health Care Quality Forum</td>
<td>2009</td>
<td>2005</td>
</tr>
<tr>
<td>Washington*</td>
<td>Puget Sound Health Alliance</td>
<td>2008</td>
<td>2004</td>
</tr>
<tr>
<td>Wisconsin*</td>
<td>Wisconsin Health Information Organization</td>
<td>2008</td>
<td>2006</td>
</tr>
</tbody>
</table>

* In the absence of legislative authority, these voluntary initiatives were established for ongoing or one-time aggregation of commercial claims data across a state or market area.
before and after enrolling in Medicaid. State Medicaid directors have noted that the ability to aggregate data on their beneficiaries, and to combine and compare those data with data on commercial insurance enrollees, will be crucial in improving the management of state Medicaid programs.

Such information gaps are why an increasing number of states are investing in APCDs; they aggregate claims data across public and private payers, often supplementing existing information to provide a system-wide view of health care cost, quality, and access. At the state and national levels, APCDs bring information on cost, quality, and administration to a wide variety of health care constituents: consumers, policymakers, researchers, employers, public health departments, commercial payers, providers, and others.

Examples of the vast and varied information APCDs can provide include:

- which hospitals have the highest prices;
- what percentage of an employer’s workers has had a mammogram;
- how far people travel for which kinds of services;
- which health plan has the best discounts;
- which parts of the state have better access to specialists;
- whether established clinical quality and safety guidelines are being met;
- if emergency room usage in Medicaid is higher than for the commercial population, what the drivers are;
- how long, on average, patients are using antidepressant medications, and the demographics of this population;
- how the utilization patterns of Medicaid beneficiaries compare with those of the commercially insured population; and
- where the gaps are in disease prevention and health promotion services.

**APCD Use Examples**

As of this writing, 12 states have passed APCD legislation calling for comprehensive reporting policies. In those states, policy leaders have recognized the value of and the need for robust information about health care costs, utilization, and quality that includes inpatient, outpatient, physician, and pharmacy data (some states also collect dental data). Policymakers in several states saw APCDs as important elements in health care and payment reform efforts. For example, Utah legislators supported an APCD to facilitate cost savings across the system by driving payment reform and value purchasing.

### Exhibit 2. Payment Rate Benchmarking in New Hampshire

<table>
<thead>
<tr>
<th>Procedure Code</th>
<th>Health Plan 1</th>
<th>Health Plan 2</th>
<th>Health Plan 3</th>
<th>NH Medicaid</th>
</tr>
</thead>
<tbody>
<tr>
<td>99203 Office/Outpatient Visit New Patient, 30 minutes</td>
<td>$124</td>
<td>$115</td>
<td>$130</td>
<td>$42</td>
</tr>
<tr>
<td>99212 Office/Outpatient Visit Established Patient, 10 minutes</td>
<td>$51</td>
<td>$48</td>
<td>$52</td>
<td>$30</td>
</tr>
<tr>
<td>99391 Preventive Medicine Visit Established Patient Age &lt;1</td>
<td>$111</td>
<td>$102</td>
<td>$107</td>
<td>$61</td>
</tr>
<tr>
<td>90806 Individual Psychotherapy in Office/Outpatient, 45–50 minutes</td>
<td>$72</td>
<td>$71</td>
<td>$71</td>
<td>$61</td>
</tr>
</tbody>
</table>

Source: NH Department of Health and Human Services payment rate benchmarking study.
Leaders in Tennessee plan to use their APCD to improve health care access, affordability, and coverage; inform health care policy; determine the capacity and distribution of existing health care resources; evaluate the effectiveness of intervention programs to improve patient outcomes; compare costs across treatment setting and providers; and provide the public with information on health care quality. Tennessee’s APCD will be used for analysis and public reporting at the population level.

In Maine, legislation initially authorized the establishment of the state’s APCD to obtain an understanding of payments relative to charges and a capture a full picture of the health care delivery system, including non-inpatient utilization. The system has evolved for broader policy uses, such as evaluating managed care market share and the cost of services in the small-group market; establishing the types of care Medicaid beneficiaries receive as they migrate in and out of the program; and identifying network access problems. Leaders in Maine established an information-reporting infrastructure to support the evaluation of cost drivers and the link between quality and cost across the system.

Understanding how states with APCDs are using their data and demonstrating the impact on policy or market decisions in those states helps make the case for APCD implementation. The following exhibits demonstrate how one state, New Hampshire, has used its APCD for various audiences and purposes. Exhibit 2 shows the variation in the average payment for common outpatient procedures between commercial carriers and the state Medicaid program. New Hampshire stakeholders commissioned the study so that Medicaid could compare its rates with those of the commercial payers while rethinking its own fee schedule.

An APCD also permits the longitudinal comparison of payers—for example, identifying the effects of Medicaid policies over time and comparing Medicaid’s care delivery system with those of other payers.

Exhibit 3 shows an example, using coronary artery disease, of the kind of data an APCD can generate. The ability to measure prevalence of health conditions and compare different populations can assist public health officials and policymakers in making benefit design changes and developing public health priorities.

Exhibit 4 provides another example of the kind of data an APCD can generate. New Hampshire used these data to establish its priorities for health information exchange development. With the APCD’s data, leaders were able to determine the extent to which residents were obtaining their care in multiple health care markets, and to use these data to identify where data exchange investment would provide the most benefit. This study also identified the total population leaving the state for care, but did not measure the population migrating into the state for care. It is now possible to measure such data, because all of New Hampshire’s neighboring states now have APCDs as well.

**APCD DEVELOPMENT BY STATE**

As states have continued to understand the value of APCDs, the interest in and development of databases has increased. Exhibit 5 is a map of the states that have an existing APCD, have one under development, or have strong interest in development. (Strong interest could range from exploring funding models to having developed legislation.) Oregon and Tennessee will have live systems in 2010. Kansas, Maine, Maryland, Massachusetts, Minnesota, New Hampshire, Utah, and Vermont have existing public systems, and Louisiana, Washington, and Wisconsin have private, voluntary APCD initiatives that collaborate with certain state
agencies. Rhode Island passed APCD-enabling legislation in 2008, and leaders are now developing a plan to fund and operationalize the database. Hawaii and Colorado introduced legislation in their 2010 sessions to authorize APCD development; Hawaii’s legislation did not pass, but Colorado’s did, though that state did not provide for public funding for the implementation of the APCD. And leaders in the light gray states on the map are actively investigating APCDs. As stated earlier, there are across the country voluntary APCD initiatives that are not discussed in this paper. There are other voluntary programs not identified on the map below,
as they are assumed to be limited in coverage and not directly collaborating with state regulatory agencies.

**APCD DEVELOPMENT ISSUES**

States have used a variety of approaches to developing and implementing APCDs. These approaches differ in the governance of data collection and dissemination, collection thresholds, and sources of data. Regardless of approach, the agency implementing an APCD will have to address a range of technical issues. These include the varying capacity of payer information systems to report the required data extracts, problematic data fields, such as the National Provider Identifier, and eventually capturing information on some populations, such as the uninsured. Lessons learned by states with mature APCD initiatives are informing other states as they implement their own APCD programs. Although states vary in their political structures and environments, all states contemplating the implementation of an APCD should make sure all major stakeholders are involved in all stages of development.

**APCD Administration**

The implementation of state-run APCDs is typically authorized through legislation. Experience has demonstrated that legislation should ideally include the authority to enforce its provisions, such as penalties for payers that do not report or for misuse of the data. State officials agree that broad APCD legal authority is needed for the collection of data from relevant data sources including plans, pharmacy benefit managers (PBMs), and third-party administrators (TPAs), which otherwise may not submit their data. Because states vary in their licensing requirements of TPAs and PBMs, without specific legal authority to compel these entities to report the data, a significant amount of claims data will be excluded. (While there is no model legislation, NAHDO and RAPHIC have compiled links to existing legislation on the RAPHIC Website, www.raphic.org.)

APCD governance models vary as widely as do different states’ legislation (Exhibit 6), but the majority of these databases are publicly managed by a state agency with legislative authority to collect and disseminate the data. Where agencies have overlapping legislative authority, a shared governance model may be adopted. And in states with no legislation mandating APCD reporting, a public–private entity may collaborate on implementation, capturing the data voluntarily from payers in that state. Those states that grant legislative authority to collect data are, however, in a stronger position to enforce reporting compliance than states with voluntary initiatives. APCD administration also varies by state, reflecting the varying political environments in each state. Some states contract with a private vendor to provide data collection and management services, with oversight by the state agency. Many state agencies partner or plan to partner with a private or academic organization to analyze and disseminate the APCD data. Despite the differences in the models, all APCD programs have a structure and process that includes the major stakeholders in decisions on data collection, use, and access. Described below are the types of governance models that the states with APCDs have put in place for administration and implementation.

Just as different states administer and implement their APCDs differently, states will also arrive at different strategies for sustaining the databases financially over the long term—a crucial undertaking if APCDs are to serve as ongoing sources of information to monitor cost and utilization trends. Public APCDs are typically funded through general appropriations or industry fee assessments, and, in some states, the expectation is that a portion of future funding will come from data product sales. APCDs that are linked to broader health care reform initiatives may have more stable funding than those that rely on more limited uses and users. Private initiatives typically rely on subscription and membership fees, as well as the potential to contract with the state for specific information.

Other models of funding may emerge as states respond to ongoing budget deficits. It is too soon to predict the best models for either governance or financial sustainability at this early stage of APCD development, but NAHDO and RAPHIC will monitor the development of the various models over time.
Exhibit 6. Models of Administering APCDs

Model 1: State Health Data/Policy Agency Management

Legislation authorizes the state agency or health data authority to collect and manage data, either internally or through contracts with external vendors. Legislation grants legal authority to enforce penalties for noncompliance and other violations, while separate regulations define reporting requirements. A statutory committee or commission is defined in law, or the state agency appoints an advisory committee.

Model 2: Insurance Department Management

The APCD reporting program is managed by an agency responsible for the oversight, regulation, and licensing of insurance carriers. Advisory committees of major stakeholders guide decisions. Reporting is mandated under the authority of the Insurance Code, with penalties for noncompliance.

Model 3: Shared Agency Management

Two state agencies with separate authorities share in the governance and management of data collection, reporting, and release. The shared responsibilities are defined in statute and expanded on in a Memorandum of Understanding that further defines the scope of authority and the process of decision-making. In New Hampshire, the agencies are the Department of Health and Human Services and the New Hampshire Insurance Department.

Model 4: Private APCD Initiatives

A private APCD initiative may be established in states without legislative authority. Data are collected voluntarily from participating carriers with no authority to leverage penalties for nonreporting. A board of directors will be composed of all major stakeholders that guide the decision-making process.

APCD Data Collection

APCD legislation typically provides broad authority, but specific data collection requirements are defined by regulations rather than in the legislation. However, legislative mandates are not the only option for aggregating claims data across payers; a number of states have established APCD initiatives that gather data voluntarily from participating carriers. Voluntary reporting may pose challenges to the public release of comparative reports for several reasons. First, voluntary initiatives typically cannot compel data submission by all payers in a state and the data may be incomplete. Next, the use of the aggregated data may be restricted if one or more contributors of the data oppose public release. Finally, privacy laws may make it difficult for private entities to receive and release detailed patient data without legal authority to do so.

In Maine, the authority is tied to insurance licensing, and Maine’s use of the public health authority and its more stringent privacy provisions exempts the state from Health Insurance Portability and Accountability Act (HIPAA) provisions. In Maryland, the Health Services Cost Review Commission linked
data reporting to broader health care reform and used its legal authority to expand required reporting beyond facilities to include carriers, pharmacy benefit managers, and third-party administrators.

APCDs typically include patient demographics, diagnoses, procedures, providers, payers, charges, and actual payments; therefore, they are a robust source of information for understanding health care delivery system patterns and performance. Because claims data are generated for billing purposes, the data elements are generally available across payer systems, making this a cost-effective data source for states. Uniformity is important, both for reasons of comparability within and across states, but also to reduce the payers’ burden to submit data to different states in different formats. To address these issues, NAHDO and RAPHIC are working with states and the industry to standardize data reporting formats.

Whether APCD implementation will be conducted by the state data agency or outsourced, the rules for collection and release of data must be legally adopted (or approved by consensus for a voluntary APCD program). While no model regulations have been developed, most state APCD rules contain the following attributes:

- data elements and definitions for collection;
- submittal timelines;
- review and validation process;
- data release and use policies; and
- penalties for noncompliance (if not included in legislation).

State APCD reporting rules can be found at www.raphic.org. NAHDO and RAPHIC continue to work with states and payers to promote standardization of APCD rules across states.

### Collection Thresholds

States differ in the size thresholds that determine whether a private plan must submit data, with reporting requirements typically based on the number of covered lives, total revenue from premiums, or market share. Maine, for example, collects data from all health plans, third-party administrators, and pharmacy benefit managers with more than 50 covered lives. Massachusetts collects data from carriers with more than $250,000 in annual premiums, while Maryland has a threshold of $1 million. Kansas collects data from insurers with more than 1 percent of market share, but exempts self-insured ERISA plans.

Exhibit 7 lists the collection thresholds from a sample of states that demonstrate how differing market structures and payer mix determine threshold policies. Data collection policies are designed to capture critical populations, often balancing collection costs with

<table>
<thead>
<tr>
<th>State</th>
<th>Threshold Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kansas</td>
<td>Kansas residents with carriers having at least 1% market share based on annual premium volume reported to Insurance Department. ERISA and the self-insured are exempt.</td>
</tr>
<tr>
<td>Maine</td>
<td>Maine residents covered by health plans, third-party administrators, and pharmacy benefit managers with more than 50 covered lives.</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>Massachusetts residents covered by licensed carriers having at least $250,000 in annual premiums.</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>Only carriers with $250,000 or more in annual in premiums must report.</td>
</tr>
<tr>
<td>Utah</td>
<td>Utah residents covered by carriers with covered lives equal to or greater than 200.</td>
</tr>
<tr>
<td>Vermont</td>
<td>Vermont residents covered by carriers with covered lives equal to or greater than 200.</td>
</tr>
</tbody>
</table>

* Not all APCD states are represented in this table.
relevance of enrollment or premium thresholds for carriers with small market share. Further, some states wish to avoid the ERISA exemption issue, while others include ERISA plans.

**Sources of Claims Data**
States typically start populating their APCDs with data from commercial carriers and third-party administrators licensed in the state and, if available, Medicaid claims data. Three states (Maine, Maryland, and Minnesota) have acquired Medicare claims data from the Centers for Medicare and Medicaid Services (CMS) for beneficiaries in their respective states and most of the other states plan to request similar data from CMS. No state has incorporated TRICARE and Federal Employees Health Benefits Program (FEHBP) data in its APCD, and data on the uninsured is generally not available; the state of Maine does have data from a portion of its uninsured population. Once APCD reporting is established for commercial plans, a state can establish priorities for filling data gaps.

Exhibit 8 below denotes each state’s current sources of claims data, the data sources states are interested in using, and the data sources that states are in the process of receiving. It is important to discuss uninsured claims data as they relate to APCDs. Only one state, Maine, has incorporated uninsured claims, and then only partially. Maine Health, the largest health system in the state, provides identification cards to uninsured individuals using their services to better manage their care and to document uncompensated care. Maine Health then submits pseudo-claims to a third-party administrator owned by a national insurer for processing as if they were from insured patients, but no payment is made. Summary information on the uninsured patients is produced by the TPA for Maine Health and claims data files are submitted to the state data agency. From a policy perspective, capturing data on the uninsured is important and this has the potential to be a model for the rest of the states.

As states advance their APCD reporting agendas, it is expected that FEHBP and TRICARE plans will be explored as future sources of data.

**Data Release Policies**
Perhaps the most sensitive aspect of APCD implementation is determining what data and information will be released and to whom. The variation in policies and practices across states reflects the potentially contentious nature of determining who may access the information and the processes controlling release. A state-governed APCD, working under a broad legislative mandate, will establish regulations that specify data access and release policies and these may vary.

<table>
<thead>
<tr>
<th>State</th>
<th>Medicaid</th>
<th>Medicare</th>
<th>Commercial/Third-Party Administrator</th>
<th>Uninsured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kansas</td>
<td>Yes</td>
<td>Interested</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Maine</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Partial</td>
</tr>
<tr>
<td>Maryland</td>
<td>Can Access*</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>Planned</td>
<td>Planned</td>
<td>Yes, but not TPAs</td>
<td>No</td>
</tr>
<tr>
<td>Minnesota</td>
<td>Yes</td>
<td>Requesting</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>Yes</td>
<td>Interested</td>
<td>Yes</td>
<td>Interested</td>
</tr>
<tr>
<td>Utah</td>
<td>Yes</td>
<td>Interested</td>
<td>Yes</td>
<td>Interested</td>
</tr>
<tr>
<td>Vermont</td>
<td>Planned</td>
<td>Planned</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

* Maryland partners with Medicaid in special reports/studies involving Medicaid.
according to state legal and political environments. States will de-identify the data using encryption and statistical methods to mask the identity of the individuals in the database.

In some states, like Maine and New Hampshire, aggregated payment data are published on a public Web site, and de-identified and research files are made available for qualified users and uses. Of the states with existing APCDs, Minnesota has the most restrictive data release policies, limiting data access to state government only. Private APCD initiatives, collecting data voluntarily from payers, will develop access policies according to their organizational missions and agreements with the payers that supply the data. Most APCD initiatives, public and private, are likely to adopt more conservative release policies in the early phases of the program. It should be noted that many agencies maintaining APCDs have decades of experience collecting and disseminating hospital data without privacy breeches and use similar statistical and management controls for their APCD practices.

**FUTURE APCD CHALLENGES**

**Standards**

As discussed above, each state APCD initiative establishes its own data reporting rules and specifications and, consequently, these rules vary across states. This lack of a uniform and standardized approach diminishes the overall potential of these databases to inform policy and practice. It also creates additional expenses for the payers who are submitting data to multiple states. For example, in 2010, 13 states have an APCD. If each state were to adopt a unique reporting format, national payers will have to submit 13 different file extracts for multiple analytic files (e.g., medical claims, eligibility). As more states implement APCDs, the need for uniform reporting specifications increases in order to reduce the impact on national payers supplying the data to states.

Conversely, greater standardization of APCD operation and policies across states will enable cost-effective regional, and eventually national, databases. At the same time, while such standardization of data elements and format across states is beneficial for both states and payers, there needs to be some flexibility for local information needs.

NAHDO and RAPHIC have been partnering with national carriers and other stakeholders to establish a standardization plan that will ensure that states collect common data elements in the same way. Data elements need to be aligned with industry standards as well as standardized from state to state. Without uniformity of state APCD data submissions, each state might develop its own data collection policies, and carriers would have to comply with each of the individual state’s submission specifications; requiring payers to submit data in different formats according to state will increase costs to both the carriers that submit the data and the states that receive the data. Similarly, without

### A National Payer’s Principles for Standardization of APCDs

- Identify essential data elements and the source most likely to have the data.
  - If data are required to pay a claim, enroll a client, and bill, then payers likely will have it.

- Balance the value of an essential data element against its cost to report.
  - Do new fields have value for measurable health improvement, transparency, cost?

- Include all stakeholders in the APCD dialogue.
  - Payers know their systems and may have solutions and insights to improve or enhance needed data.

- Standardize both the data itself and the schedule for updating the APCD.
  - States should time reporting changes to coincide with payer systems’ maintenance and enrollment cycles.

Source: M. Taylor, Aetna Regulatory Compliance
a standard data format, states may not be able to easily share data, analysis code, and reporting tools with other states.

The process of standardizing data submission from state to state should also include the review of established data standards, such as HIPAA transaction standards for claim and remittance. Future work of RAPHIC and NAHDO includes plans for this comprehensive review of data standards with states that are collecting APCD data.

While standardization will be important, individual states will likely add data elements that not every state needs. In this case, a standard for how to collect that element can be created, but states will not be obligated to include every element.

**Accurate Provider Files**

States have identified major challenges with the accurate identification of providers. Mapping national taxonomy codes (the National Provider Identifier) to other data elements, such as state license number, former Uniform Physician Identifier Number, tax identifier numbers, and (in some states) physician name is expensive for states. Maine has been working closely with payers and providers to address the problem, but many issues remain unresolved. Solutions to these issues are critical to the ability to evaluate health care services and provider quality, and to the overall promotion of an accountable and transparent health care system.

**APCDs and Health Information Exchanges**

Health information technology and health information exchanges (HIEs) have the potential to enhance existing databases with clinical information for quality and outcomes reporting. Sixteen states and qualified state-designated entities will be funded to build capacity for exchanging clinical and other relevant information among and between health care professionals and hospitals with the purpose of improving the coordination of patient care. While it is unlikely that HIE initiatives will be fully implemented in the near term, and it is likely that HIEs and APCDs will be distinctly separate initiatives, the American Reinvestment and Recovery Act’s HITECH (Health Information Technology for Economic and Clinical Health) provisions may provide unique opportunities for states to build local information system capacity to meet state information needs. It is not too late to formulate a vision for the future integration of APCDs and HIEs; the electronic reporting of APCD data establishes a foundation on which states can build. Some experts believe that every state should implement an APCD reporting system and then build on it by strategically enhancing the basic data with clinical information as it becomes available. Integrating APCD data with clinical transaction data will provide robust data for comparative effectiveness research and population health applications. One of the challenges states will face is the fact that there are few examples of such integration, but integration will eventually be important in improving the usefulness of the data for risk adjustment, clinical studies, and outcomes research.

**CONCLUSIONS**

All-payer claims database initiatives are increasingly becoming an important component of state health care reform activities, serving as sources of information for transparency, value purchasing, and market applications. States with APCDs are well positioned to respond to health care reform challenges and to be active participants in comparative effectiveness research. And state HIE development is expected to allow states to enhance APCD data by integrating it with clinical transaction data. The APCD environment right now is a dynamic one.

Challenges to APCD implementation remain and states benefit from sharing best practices in addressing these challenges. Through the collaboration with their state partners, NAHDO and RAPHIC have laid a foundation for multistate collaboration that will serve as the basis for standardizing systems and improving market and policy information in states with APCDs.
Notes

1 TRICARE is the health care program serving Uniformed Service members, retirees, and their families worldwide (http://www.tricare.mil/).

2 The Federal Employees Health Benefits Program (FEHBP) provides employee health benefits to civilian government employees of the United States government. Benefits are administered by private carriers and paid for by the federal government and the employee.

3 ERISA is the acronym for the Employee Retirement Income Security Act of 1974, a federal law that sets minimum standards for most voluntarily established pension and health plans in private industry to provide protection for individuals in these plans (http://www.dol.gov/dol/topic/health-plans/erisa.htm).

4 A “pseudo” claim contains charge information but not payment.

5 http://healthit.hhs.gov/blog/onc/index.php/2010/03/15/a-key-step-toward-nationwide-health-information-exchange/.

Authors’ note: The information in this document reflects the October 14, 2009, conference proceedings and continuous interaction with states by the NAHDO and RAPHIC staff. Conference agenda, slides, and audio can be downloaded at http://www.nahdo.org/Meetings/2009AllPayerClaimsDatabaseConference/tabid/152/Default.aspx. State APCD information and links can be downloaded at www.raphic.org.
Denise Love, executive director of the National Association of Health Data Organizations (NAHDO), has more than 20 years of experience working with state health care data systems. In her positions as the executive director of NAHDO and as a former state health data agency director, Ms. Love has been providing technical assistance, policy advice, and advocacy to state health care data agencies and the larger health care data community user groups. She can be e-mailed at dlove@nahdo.org.

William Custer, Ph.D., associate professor at Georgia State University’s J. Mack Robinson College of Business, Risk Management and Insurance Department, Institute of Health Administration, is an expert in the areas of employee benefits, health care financing, and health insurance. Prior to joining the college in 1995, he ran his own research firm in Washington, D.C. Dr. Custer also has been the director of research at the Employee Benefit Research Institute (EBRI) in Washington, as well as serving as an economist in the health policy research program at the American Medical Association. He has authored numerous articles and studies on the health care delivery system, insurance, retirement income security, and employee benefits.

Patrick Miller, M.P.H., research associate professor at the University of New Hampshire Institute for Health Policy and Practice, has more than 20 years of health care experience. He has worked with a major national insurer in maintaining and using large claims databases for a wide range of analytic purposes and is a leader in establishing and project-managing the Regional All Payer Healthcare Information Council (RAPHIC).

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