Cost and Funding Considerations for a Statewide All-Payer Claims Database (APCD)

March 2011

With escalating health care costs, the enactment of the Patient Protection and Affordable Care Act (PPACA), and declining state revenues, states are facing pressure to reduce health care costs and address increasing provision of health insurance coverage to the uninsured. States are seeking innovative solutions to improve the performance of their health care delivery system. These solutions include enacting policies to promote delivery and payment reforms, and facilitating cost and quality transparency. These types of interventions require timely and reliable state-level data and information about a state's delivery system, including provider and payer-level costs, population health indicators, and variation in health care utilization and outcome measures.

Recognizing the need to fill these information gaps, a growing number of states are implementing All-Payer Claims Databases (APCDs),[i] which are cost-effective sources of health care cost and utilization data. These data systems provide information on inpatient, outpatient, pharmacy, and dental services for commercially and publicly-insured populations. States with APCDs can document the variation in health care cost, quality, and access across the system and monitor delivery system performance over time. This fact sheet provides state policy makers with information about the cost and funding of APCDs. The information is based on the experience of existing APCD states and is intended to help state officials planning APCD implementation estimate the costs and revenue options for their own APCD system.

There are several phases of APCD development, including planning activities, implementation activities, and information production. Each of these phases includes one-time start-up costs and ongoing costs that need to be appropriated.

The ability of APCDs to serve as ongoing sources of information to monitor cost and utilization trends depends on their long-term financial sustainability.

APCD Cost Components and Related Considerations

There are several phases of APCD development, including planning activities (stakeholder engagement, determining the governing structure), implementation activities (the actual technical build of the system), and information production (analytics and application development activities). Each of these phases includes one-time start-up costs and ongoing costs that need to be appropriated. Costs for APCD planning, implementation, and maintenance vary by state and depend on factors such as:

- State health care system market structure (e.g., the numbers and types of delivery systems that are present in the state)
- State population (e.g. impact on covered lives) and insurance coverage patterns (e.g., the types of health insurance products in place for the population)
- Number of licensed payers, including TPAs (third party administrators) and PBMs (pharmacy benefit managers), and the number of data systems in place for those payers (e.g. many payers have multiple transaction systems housing the data)

THE COMMONWEALTH FUND
NAHDO National Association of Health Data Organizations
APCD Council All-Payer Claims Database
University of New Hampshire
New Hampshire Institute for Health Policy and Practice

- Location of the agency where the APCD is to be housed (e.g. insurance department, health department, or other type of arrangement such as a state-sponsored private entity)
- Planned users and uses for the APCD and associated costs of data release (e.g. if researcher access is planned).

These are broad-brush cost considerations. Actual costs incurred will depend on some of the factors discussed below.

APCD Planning

Decisions made during the planning phase will determine the scope of data collection and their potential uses, and thus will inform cost estimates. Major cost considerations include:

- **Stakeholder engagement**: Typically, these are one-time costs related to the staff time required to identify, educate and convene key constituencies and to establish a process for deliberation and decision-making. When estimating staff time, consideration should be given to the size of a state, and the scope of the stakeholder group, particularly the payer market. Additional resources may include educational and meeting materials and travel support for in-person meetings.
- **Governance decision**: Staff time will be required to conduct a review of state laws and existing organizational structures to determine which governing and funding model/structure will best fit with the state's goals and legislative limitations.
- **Data collection and release rules**: Staff time will be required to develop data collection rules consistent with national standards, and to define the data submission specifications and release policies that are appropriate for the state. Model rules and data submission specifications can be adapted from other states' regulations, reducing time and costs. The APCD Council has a draft set of national data collection standards (http://www.apcdcouncil.org/step-3-data-collection-rules) that has been submitted to national Data Management Standards Organizations for review. States should bear in mind that decision regarding data analysis and policies related to data release will directly affect future revenue. Broader release can reduce state-sponsored costs.

While the majority of planning activities are one-time costs, costs associated with project management, maintaining stakeholder communication, data maintenance and quality assurance, and processes for regular stakeholder input will be ongoing expenses.

APCD Implementation

Whether an agency builds and maintains the APCD in-house or outsources data management to a vendor, there are several determinants to estimating the cost of the APCD technical build. These costs will be driven by the following elements:

- **Number of covered lives**: States with large populations will need sufficient computing and storage capacity to analyze and accommodate terabytes of data associated with the eligibility, medical, pharmacy, and dental claims files. Developmental costs, maintenance, and accommodation for provider file consolidation will be required for states who wish to collect this information. Provider file creation and maintenance has proven expensive for states.
- **Number of carrier feeds or data sources:** The main cost driver reported by states is the number

of different data sources and platforms the collecting agency must interact with, which is primarily dependent upon the specific health insurance market of each state. For example, the state of Vermont has ten commercial payer feeds compared to Maine that has nearly ninety. Driving these totals is the fact that one commercial payer could have multiple information system platforms (typically delineated by product), each resulting in a separate set of data feeds. The agency must interact with and test data from each separate platform and monitor compliance and data quality from all sources.

- **The scope of the APCD will also determine the number of data sources:** Most APCDs will capture eligibility, medical, and pharmacy files; some states will also include dental claims and provider files, thereby increasing the number of data sources and data aggregation. States often set a threshold that exempts carriers with minimal market share (typically defined in terms of covered lives or premiums), which reduces the number of potential data sources. For example, the state of Maine exempts payers from submitting data if they have less than 50 subscribers in all months of the year. The state of Maryland uses a different exemption policy, exempting carriers with less than one million dollars in total annual medical premiums. Utah exempts carriers with less than 200 covered lives.

- **Adoption of a common/consensus state APCD data collection standard vs. a state-specific format:** If a state uses a common data collection standard (http://www.apcdcouncil.org/step-3-data-collection-rules), the costs and reporting burden to the health plan (payers) and the state are reduced. Health plans can use the extraction programs already written for other states for data elements carrier systems are capable of providing. States have a starting place for negotiating with local carriers on system design, regulations, and submittal requirements, thus reducing development time and costs.

Start-up implementation costs are labor intensive at the beginning when the payer data submissions are tested and initially loaded. Often, multiple years of retrospective data is collected. Once the system has been tested and deployed, the resources used in system start-up can be shifted to maintaining the system. After initial system development, some states shift maintenance activities in-house, which then require staffing hires at the state agency. Ongoing maintenance costs are mainly associated with monitoring compliance to reporting requirements, the identification and correction of data collection errors, and modifications to the data system to adapt to any data collection rule changes that occur as the system evolves.

APCD Analysis and Application Development

Analytics and reporting activities are among the most variable of all APCD system costs. Different approaches reflect the differing priorities of states, and the analytic costs depend on the nature and scope of the anticipated uses of the data. Analytic cost considerations include the following:

- **What information will be produced and available?** Will the state release data products to the public or issue public reports (e.g. Maine, Utah, New Hampshire) or will the data be used for internal agency studies only (e.g. Minnesota)? Will these products be free of charge (e.g. New Hampshire) or will the agency rely, in part, on data sales revenues (e.g. Maine)? Will the information (data/reports) be available publicly via a website with static reports or real-time query tools (e.g. New Hampshire)?

- **Will the agency outsource the analytic functions to a vendor or will analyses be conducted in-house?** States have taken multiple approaches, including internal studies, vendor-produced

reports, or a combination of the two. Establishing inter-agency and/or academic partnerships can allow an agency to diversify the information produced from an APCD and enhance its use, as well as spreading the cost for the APCD across multiple agencies/organizations.

- **Who will manage the requests for data and reports to be run and who will manage the dissemination?** The agency responsible for the APCD (e.g. Insurance Department, Health Department) is ultimately responsible for oversight of report production and controlling access to the APCD data according to well-defined data release policies and procedures. These policies and procedures protect privacy and prevent unauthorized usage. Agency staff will assure compliance to data access policies and interact with vendors and others to assure the website and reports are also in compliance. Typically, there is a multi-stakeholder committee managing data release requests.

- **How much will it cost to produce data sets/reports? Is there a return on investment from data sales**? Costs of report development can vary widely, depending on the type of report. Agencies with laws and policies that permit the release of standard de-identified and research APCD analytic files can generate revenues from the sales of these products, with the appropriate release agreements and research review approvals. These revenues provide a partial return on investment to offset data collection and preparation of the analytic files. Production of public reports typically are a cost to the agency and often are required as part of their core funding. These reports inform policies and yield a different kind of return on investment in terms of dollars saved and system improvements.

Funding Options for APCDs

The ability of APCDs to serve as ongoing sources of information to monitor cost and utilization trends depends on their long-term financial sustainability. Because state budget shortfalls are currently an issue for the majority of states, it would be prudent to diversify revenue sources in order to reduce the risk of catastrophic funding loss. Public APCDs are typically funded by one or more of the following sources:

- General appropriations (e.g. New Hampshire)
- Fee assessments on public and private payers (health plans) and facilities (e.g. Vermont)
- Medicaid match (e.g. Utah)
- Data sales (e.g. Maine).

Other states developing APCDs are also considering additional support from foundations (e.g. Colorado) and one state is using federal Beacon Community Cooperative Agreement Program funds (e.g. Rhode Island). It

Examples of State Funding Models

Vermont APCD

In Vermont, VHCURES is participating in a unique funding program. Under a program established by the state legislature and administered by the Agency of Administration, payers including TPAs and PBMs providing services to Vermont residents are required to contribute to the Vermont Health Care Information Technology Reinvestment Fund. The Fund is financed through an assessment of 0.0199 of one percent of all commercial health insurance claims for Vermont members, beginning with quarterly payments in October 2008. The Fund supports various Health Information Technology efforts in Vermont, including implementation of the Vermont "Blueprint for Health" information technology initiatives (HIT and HIE), and the advanced medical home project.

Rhode Island APCD

The Rhode Island Department of Health and the Rhode Island Quality Institute (RIQI) are collaborating to develop and implement the statewide APCD. The Department was given statutory authority in 2008 to establish and maintain an All-Payer Claims Database. The development of Rhode Island's APCD is being pursued by the Department in partnership with RIQI as one of the projects of the federal Beacon Community Cooperative Agreement Program grant, which was awarded to RIQI in March 2010.

has been discussed that states might be able to produce consolidated pay-for-performance or other value added services to help fund their efforts. Private, voluntary reporting initiatives generally rely on membership dues for core funding (e.g. Wisconsin). The majority of health data programs, public and private, eventually supplement their core revenues with data sales revenues, but these revenues do not occur until one or two years after the data system is established. As stated above, data sales are tied to release policies and broad release policies enable a state to spread the cost of the system to the data users. Data sales alone are not generally sufficient to support the core infrastructure of a health data program, but can provide supplemental revenue to maintain and update the system.

Reported annual state APCD funding ranges from $350,000 to establish a 'bare bones' data system to $1 million to $2 million to establish a data system. These numbers are for states ranging from approximately 1.3 million to 5.5 million lives. The goal for each state is to build a sustainable APCD system that provides consistent and robust information across the state's health care system over time. Reaching this point will take time and cost will be incurred, as in the words of one state health data program director, "Data systems are not like light switches. You can't flip them on one year and then flip them off the next and expect to see progress in data collection and use. States must have ongoing support to keep the pipeline open (NORC-NAHDO Report, 2005)."

Fact sheet prepared by the All-Payer Claims Database (APCD) Council - a collaboration between the National Association of Health Data Organizations (NAHDO) and the New Hampshire Institute for Health Policy and Practice (NHIHPP) at the University of New Hampshire. Lead authors, Denise Love, Executive Director of NAHDO and Emily Sullivan, Research Associate, NAHDO

[i] For a definition of an All Payer Claims Database (APCD) go to the APCD Council website: www.apcdcouncil.org