

To guide state health care delivery and payment reform policies, state governments require high quality health data sources. Data collected directly from health care facilities (hospitals, emergency departments, and ambulatory surgery centers) and health insurers provide powerful sources of information about the health care delivery system and the populations they serve and cover. This fact sheet will discuss two essential data sources, Hospital Discharge Databases (HDDs) and All-Payer Claims Databases (APCDs), which a growing number of states are using to monitor and understand health care delivery performance and health care use by their population.

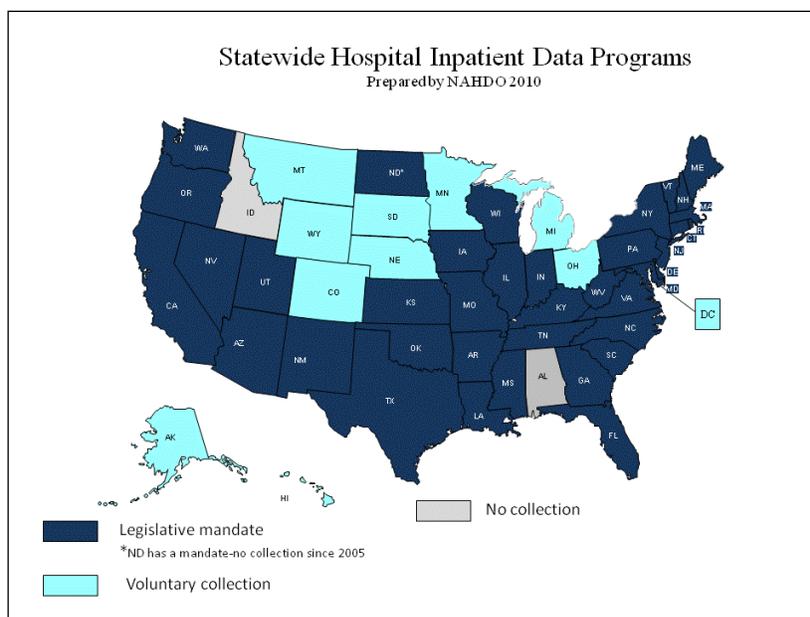
HDDs and APCDs are being used not only for reporting purposes but also to guide health care delivery and payment reform and promote transparency and accountability. Individually, each data source produces data sets that are powerful tools for purchasing and policy decisions. When combined, information from each of these sources are synergistic, filling gaps and providing information never before available to health care researchers, policy makers, hospitals, clinicians, employers, payers, and patients.

Established Data Sources: Hospital Discharge Databases (HDDs)

HDDs are a major source of health care data in most states. HDDs typically collect data for all inpatient hospital-based care for all patients regardless of payer, including the uninsured. Most state HDDs have added emergency department and ambulatory surgery center encounters, providing these states with robust sources of facility-based health care use. When aggregated across a state or service area, HDDs provide information on variations in the use of hospital-based services, as well as quality and outcomes for hospitalized populations.

Benefit of Linking APCDs and HDDs – Maine Example

In the state of Maine, the data agency combined information from their APCD and HDD to do a cost shifting analysis and found that for Maine’s acute care hospitals there is no, or insignificant, correlation with the Medicare and Medicaid populations, reimbursements and commercial payments.



Statewide HDDs provide a complete and longitudinal source of information about patients and the hospital-based clinical care they receive. Unlike APCDs (described in detail further in the paper), hospital-based discharge data include information on all payer types including the uninsured self-pay patients and ERISA (Employee Retirement Income Security Act) plans, and are well-established with uniform data quality across hospitals and states. HDDs also contain more clinical detail than APCDs, because payers typically only collect and retain the information needed to adjudicate a claim. Forty-eight states (identified in the map above) now maintain hospital discharge data reporting systems and, because of their wide availability and comparability across the United States, hospital databases are the foundation for research, public health, and policy studies nationally.

Examples of HDD Uses:

Hospital discharge data are routinely used to address issues of public safety, including the tracking of injury rates, inpatient costs, reasons for admissions, patient characteristics, and outcomes for specific types of injuries, and informing the development of injury prevention programs. The National Highway Traffic and Safety Administration uses HDD data sets across many states in its Crash Outcomes Data and Evaluation System (CODES) to evaluate and inform preventive safety policies.ⁱ

The Pennsylvania Health Care Cost Containment Council releases performance reports on hospitals and physicians, which are used by each to examine their care processes and make quality improvements.ⁱⁱ For example, the Council has documented a decline in hospital mortality rates and wide variation in the length of stay among hospitals. The largest variation in length of hospitalization was for Respiratory Failure with Mechanical Ventilation, where the risk-adjusted length of stay ranged from 4.1 to 16.1 days.ⁱⁱⁱ

Emerging Data Source: All-Payer Claims Databases (APCDs)

All Payer Claims Databases (APCDs) are rapidly emerging as a new and essential source of information about outpatient services and healthcare payments. APCDs are large-scale databases that systematically collect and aggregate medical, dental, and pharmacy claims data along with eligibility files from public and private payers on an ongoing basis. Twelve states have enacted legislation and/or started to implement APCD collections and this number is expected to increase. Several more states are developing legislation currently, and two states have developed voluntary systems.

APCDs can be used to describe the health care use of the insured population and, because they are based on claims reimbursement, the data provide information about actual payments – both patient liability and provider payment. Increasingly, states are aggregating claims including physician, facility and ancillary services across all health care settings, yielding large sample sizes and powerful information about defined populations which was previously difficult to capture and use.

The following map contains a status by state of APCD progress (February 2011).



Combined Utility of APCDs and HDDs

These data sources are complementary, not redundant, and one cannot replace the functions of the other. The HDDs are generated by the institution providing the care (e.g. the bill), where the claims database is generated as a result of payment (e.g. the claim). Although each data source captures similar information, states collecting both APCD and hospital discharge data are in the strongest position to leverage the best of both to strategically monitor and improve health care delivery. Measuring and improving health system performance, both clinical and financial, and controlling costs, will necessitate use of databases that can be used in tandem to capture full population care, costs, and payment.

The following table illustrates how hospital discharge data and APCD data perform in categories of typical uses for state health care data sets. Individually, hospital discharge data and APCDs have relative strengths and weakness, but these data sources, used in tandem, fill more information gaps than a single data set alone. For example, because hospital discharge data captures information on all patients regardless of payment type (including uninsured), these data sources out-perform APCDs for assessing health care use by uninsured populations. APCDs contain payment information missing in hospital discharge data, so for cost-related purposes, APCDs have the most utility. For some purposes, the two data sets, if available, provide a more robust picture.

Strengths of APCD, Hospital Discharge Databases and Both Combined

	Population Public Health Monitoring	Cost	Episodes of Care	Quality & Outcomes	Uninsured & Self Pay	Disparities in Race & Ethnicity	Comparative Effectiveness Evaluation
APCDs	*	***	**	*			*
HDDs	**	*	*	**	**	*	*
Combined	***	***	***	**	**	*	**

* Moderate utility; **strong utility; ***stronger utility; Blank N/A

Potential use of information from both APCD and HDD

As state and federal budget deficits grow, policy makers are exploring payment reform options to reduce these deficits. Hospital readmissions are linked to both poor quality and excess cost. Hospital discharge databases permit states to identify a hospital readmission, but not information about what happened to that patient between hospitalization and readmission. Together, hospital discharge data and the APCD permit research and assessment of the services the patient received outside of the hospital (or lack of services).

In the state of Maine, the data agency combined information from their APCD and HDD to do a cost shifting analysis and found that for Maine’s acute care hospitals there is no, or insignificant, correlation with the Medicare and Medicaid populations/reimbursements and commercial payments.



Summary

APCD initiatives are expanding rapidly across states as policy makers seek information to guide health system transformation. APCDs do not replace hospital discharge data sets, but enhance the information from them. APCDs are a valuable source of information on health care costs and physicians, but currently do not typically have data about the uninsured or have the same valuable clinical information contained in HDD. APCDs do, however, contain rich data about cost of health care service delivery across all levels of the delivery system. For this reason, they are expected to develop rapidly as a consequence of health care reform. When information from APCDs is combined with information from hospital discharge data, states and other jurisdictions will be in a far stronger position to make informed policy and market decisions.

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.

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ⁱ The Value of Hospital Discharge Databases, Schoemann et. Al., National Opinion Research Center and the National Association of Health Data Organizations, May 2005. This study was funded by the Agency for Healthcare Research and Quality under contract number 282-98-0024 (Task Order Number 5).

ⁱⁱ Physician's News Digest, Utility of PHC4's CABG report, Christopher Guadagnino, Ph.D., June 2002, <http://www.physiciansnews.com/cover/602.html>

ⁱⁱⁱ PHC4 Press Release, Hospital Performance Report, 2006, <http://www.phc4.org/reports/hpr/06/nr092707.htm>

^{iv} New Hampshire Department of Health and Human Services, Office of Medicaid Business and Policy, NH Medicaid Provider Reimbursement Rate Benchmarks for Key Services, 2008, <http://www.dhhs.state.nh.us/ombp/documents/medicaidrates.pdf>

^v New Hampshire HealthCost, Health Costs by Procedure, 2011, <http://www.nhhealthcost.org/costByProcedure.aspx>

^{vi} Maine Health Data Organization, HealthCost, <http://www.healthweb.maine.gov/claims/healthcost/default.aspx>

^{vii} Tri-State Variation in Health Services Utilization & Expenditures in Northern New England, Onpoint Health Data, June 2010, <http://www.bishca.state.vt.us/sites/default/files/Act49-Tri-State-Commercial-Variation.pdf>

