

## Utility of State-based All-Payer Claims Databases for Public Health and Medicaid

All-Payer Claims Databases (APCDs) are large-scale databases that systematically collect health care claims data from a variety of payer sources. States are seeking assistance and tools to promote and strengthen the health and health care delivery for their populations. In establishing APCDs, states have identified several important uses of APCD data. For example, in its legislation, Tennessee states:

*The commissioner shall establish and maintain an all payer claims database to enable the commissioner of finance and administration to carry out the following duties: (A) Improving the accessibility, adequacy, and affordability of patient health care and health care coverage; (B) Identifying health and health care needs and informing health and health care policy; (C) Determining the capacity and distribution of existing health care resources; (D) Evaluating the effectiveness of intervention programs on improving patient outcomes; (E) Reviewing costs among various treatment settings, providers, and approaches; and (F) Providing publicly available information on health care providers' quality of care.<sup>1</sup>*

### What information is included in an APCD?

State APCDs provide the ability to understand *how* and *where* health care is being delivered and how dollars are being spent. APCDs aim to include data on the fully-insured, self-insured, Medicare, and Medicaid populations. APCDs typically include data from medical claims, pharmacy claims, and provider files from private and public payers (including Medicaid). Importantly, these data include claims from a full range of services, including primary care, specialist care, outpatient surgery, inpatient stays, laboratory testing, and pharmacy data. The information collected typically include patient demographics; diagnosis, procedural, and National Drug Code (NDC) codes; costs (include plan and consumer paid amounts); information about the type of service providers; and payer information (e.g., type of health plan). APCDs, therefore, include important information that has utility for Medicaid programs and the public health community.

*“Accurate and timely data are key to assessment, evaluation, and policy development. APCDs are being used to support all of these areas, providing important information about the patterns of disease prevalence, treatment, access to care, and cost of health care that is not available through other sources. As more states implement APCDs for publicly and privately insured populations, more robust information and applications for public health purposes can be expected.”*

<sup>1</sup> Tennessee Pub. Ch. 611, Public Act 2009, HB 2289, 106<sup>th</sup> legislature, first session (TN HB 2289 2009)

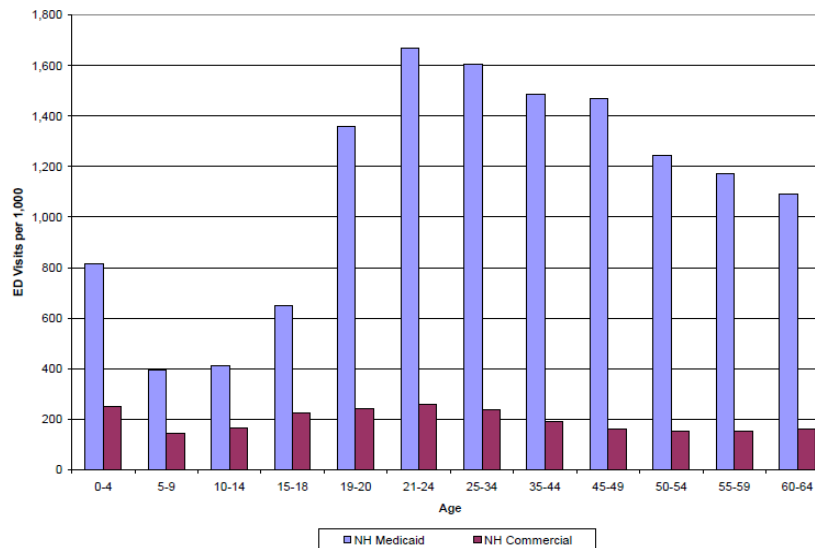


### Use of APCD data in Medicaid

The inclusion of Medicaid data in an APCD provides Medicaid programs with information that can be used to support policy development while also aiding in the design and promotion of Medicaid program infrastructure. State APCDs provide benchmarking for Medicaid payments compared to commercial payer plans.<sup>ii</sup> This allows comparison between the Medicaid population and commercial payers across settings -- primary care, inpatient, and outpatient services.

New Hampshire’s APCD, known as the New Hampshire Comprehensive Healthcare Information System (NH CHIS), has included Medicaid data from its inception in 2005. New Hampshire has used the NH CHIS data extensively to better understand patterns, cost, and quality of care in its Medicaid program. In a study of 2005 Medicaid and commercial data, New Hampshire found that the rate of ED visits for the Medicaid population was over 4 times higher than the commercially-insured population (as shown in the figure below).<sup>iii</sup>

**Figure 2. Emergency Department Visit Rates by Age: Medicaid Compared to NH Commercial Members, 2005** *Note: age 65 and older not shown, no comparative commercial population*



<sup>ii</sup>Miller, P., Love, D., Sullivan, E., Porter, J., and Amy Costello. *All-Payer Claims Databases: An Overview for Policymakers*, May 2010. Available at [http://apcdouncil.org/sites/apcdouncil.org/files/2010\\_sci-all-payer-claims-report\\_1.pdf](http://apcdouncil.org/sites/apcdouncil.org/files/2010_sci-all-payer-claims-report_1.pdf) Accessed August 27, 2010.

<sup>iii</sup> Maine Health Information Center. *2005 Emergency Department Use in New Hampshire: A Comparison of the Medicaid and Commercially Insured Populations*, March 2007. Available at <http://www.dhhs.state.nh.us/DHHS/OMB/LIBRARY/Data-Statistical+Report/emergency-use.htm>. Accessed August 30, 2010.



Further, NH has used comparisons of commercial to Medicaid payments from NH CHIS data to develop reimbursement rate benchmarks for key services.<sup>iv</sup> NH also utilizes the NH CHIS data to generate annual Children's Health Insurance Program (CHIP) reports that detail the measures of health care access, prevention, care management, utilizations, and payments for the NH Medicaid NH State Child Health Insurance Plan, and NH commercial populations. These reports are used by the NH Medicaid program to support policy efforts, to compare health care coverage rates across providers, and to evaluate and shape state health initiatives. These studies have consistently shown that children in Medicaid have the highest average clinical risk score, followed by SCHIP and commercial populations.<sup>v</sup> In addition, these studies have consistently been used to assess the quality of care to Medicaid population with SCHIP and commercial population comparators, including the rate of well-child visits (shown at right).

**Percent of Children With a Well-Child Visit to a Primary Care Practitioner by Plan Type, SFY2008**

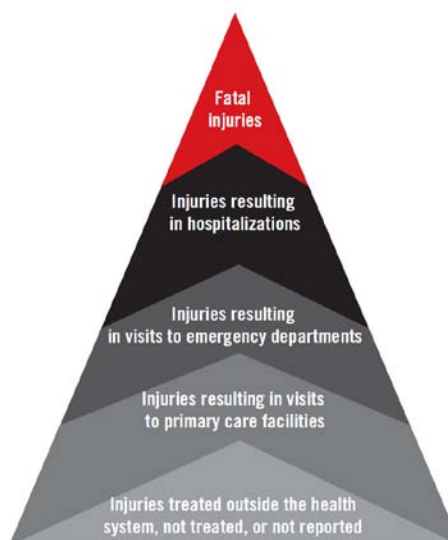
New Hampshire			
Age Group	Medicaid	SCHIP	NH CHIS Commercial
16–35 months	88.9%	95.4%	89.0%
3–6 years	69.9%	82.7%	77.7%
7–11 years	55.0%	63.0%	61.3%
12–18 years	50.4%	57.3%	55.4%
National Managed Care Plan Data*			
Age Group	Medicaid	Commercial	
3–6 years	65.3%	67.8%	
12–21 years	42.0%	41.8%	

Note: SCHIP does not cover children under the age of one. The SCHIP column is a combination of Medicaid and SCHIP for the 185-300% of federal poverty level group.

\*2008 NCQA HEDIS reporting year on 2007 data.

### Use of APCD Data in Public Health

Though public health maintains a host of surveillance systems and registries, gaps in data remain and are difficult to fill. As illustrated in The Injury Pyramid (right), surveillance that relies on tracking fatalities, hospitalizations, and emergency treatment does not capture injuries that are treated in the primary care setting.<sup>vi</sup> This setting, however, likely accounts for the largest single treatment setting. This same scenario is likely true for many other diseases and conditions; much of what we know about those diseases comes from the tip of iceberg. APCDs can be used to improve our understanding about diseases across settings and across payers.



The use of APCD data for public health is an emerging area for APCDs. New Hampshire is currently developing a web-based module for claims data analysis. This module, funded by a Centers for Disease Control and Prevention (CDC) Assessment Initiative grant, seeks to complement New Hampshire's existing web-based reporting and query system (NH HealthWRQS). HealthWRQS is a tool that provides health data analysis for community health assessment. Public health practitioners can currently access standard indicators of the health of



the population from modules based on vital records (birth and death) data, hospital discharge data (inpatient and emergency department), and Cancer Registry data. The claims module is being built to allow users to select indicators that include rates of claims for diseases, as well as indicators of care for those diseases. It is designed, therefore, to add an important part of “the pyramid” for public health practitioners. The first version of claims module (slated for release in late 2010) will include:

- Access to primary care for children and adolescents
- Access to preventive/ambulatory health services for adults
- Rate of claims for cardiovascular disease
- Rate of claims for mental health

The CDC’s National Program of Cancer Registries has recognized the potential utility of claims data. Currently, it has funded Cancer Registries in the States of Maine and New Hampshire to explore the feasibility of linking Cancer Registry data to APCD data in those states. This could provide a much deeper understanding of the patterns of care for cancer.

*Fact sheet prepared by the All-Payer Claims Database (APCD) Council in collaboration with the National Association of Health Data Organizations (NAHDO). Lead authors, Ms. Josephine Porter, Deputy Director and Ms. Ashley Peters, Research Associate, are with the New Hampshire Institute for Health Policy and Practice at the University of New Hampshire.*

**For More Information on APCD’s visit the following sites:**

All-Payer Claims Database Council: <http://www.apcdouncil.org/>

National Association of Health Data Organizations: <http://www.nahdo.org/>

<sup>iv</sup> NH Department of Health and Human Services, Office of Medicaid Business and Policy. *Payment Rate Benchmarking - NH Medicaid Provider Reimbursement Rate Benchmarks for Key Services*. Available at

[http://www.dhhs.state.nh.us/DHHS/OMB/LIBRARY/Financial+Report/rate\\_benchmarks.htm](http://www.dhhs.state.nh.us/DHHS/OMB/LIBRARY/Financial+Report/rate_benchmarks.htm). Accessed August 27, 2010.

<sup>v</sup> NH Department of Health and Human Services, Office of Medicaid Business and Policy. *Issue Brief: Children’s Health Insurance Programs In New Hampshire, October 2009*. Available at <http://www.dhhs.state.nh.us/DHHS/OMB/LIBRARY/Data-Statistical+Report/chip.htm>. Accessed August 27, 2010.

<sup>vi</sup> World Health Organization. *Injuries and Violence, the Facts: The Injury Pyramid*. Available at: [https://www.who.int/violence\\_injury\\_prevention/key\\_facts/VIP\\_key\\_fact\\_5.pdf](https://www.who.int/violence_injury_prevention/key_facts/VIP_key_fact_5.pdf). Accessed August 30, 2010

