

# The New Politics of US Health Care Prices: Institutional Reconfiguration and the Emergence of All-Payer Claims Databases

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**Abstract** Prices are a significant driver of health care cost in the United States. Existing research on the politics of health system reform has emphasized the limited nature of policy entrepreneurs' efforts at solving the problem of rising prices through direct regulation at the state level. Yet this literature fails to account for how change agents in the states gradually reconfigured the politics of prices, forging new, transparency-based policy instruments called all-payer claims databases (APCDs), which are designed to empower consumers, purchasers, and states to make informed market and policy choices. Drawing on pragmatist institutional theory, this article shows how APCDs emerged as the dominant model for reforming health care prices. While APCD advocates faced significant institutional barriers to policy change, we show how they reconfigured existing ideas, tactical repertoires, and legal-technical infrastructures to develop a politically and technologically robust reform. Our analysis has important implications for theories of how change agents overcome structural barriers to health reform.

**Keywords** health care, transparency, all-payer claims databases, federalism, United States

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The United States spends more on health care, as both a percentage of GDP and on a per capita basis, than any other country. In 2009, the year before the adoption of the Patient Protection and Affordable Care Act (ACA), health care spending in the United States was nearly \$8,000 per capita, about \$3,000 more than its closest competitor, Norway (Squires 2012).<sup>1</sup> While numerous factors have contributed to this increase—including rapid growth in utilization for popular and expensive diagnostic and therapeutic services—recent evidence has suggested that health care prices are a particularly important, and often overlooked, cause (Oberlander and White 2009; Laugesen and Glied 2011; Reinhardt 2012; Bai and Anderson 2015). In the private marketplace, responses to the problem of rising prices have been limited. As historical accounts suggest, policy innovations intended to more stringently standardize prices paid for health services have found greater traction within Medicare and Medicaid, while state-level regulatory frameworks governing the commercial marketplace had weak institutional and political footing and were largely dismantled by the early 2000s (McDonough 1997a, b; Hackey 1998).

While the existing literature helps to explain the failure of older regulatory frameworks, it cannot account for a significant shift in the ideas, interests, and institutions that dominate this policy arena (Sage 1999). In recent years, advocates of health care reform have embraced transparency instruments such as the Physician Compare website, which requires the public posting of information about the number and type of services delivered by physicians as well as how much Medicare paid them for services (Somashkehkar 2014). In the private marketplace, however, a central trend has been a convergence around a model of state-level all-payer claims databases (APCDs) that aim to empower consumers, purchasers, and government officials to make informed market and policy choices (CPR 2014). To explain the emergence of APCDs, we draw on ideas from pragmatist institutional theory, which argues that agents of change facing significant institutional constraints often respond by developing the existing knowledge base about potentially viable policy ideas, tactics, and institutional infrastructures, and repurpose these “raw materials” to serve new goals. As we show in this article, organized proponents of APCDs retooled existing policy ideas about when and where transparency works; repurposed tactical repertoires for state-level coalition building and policy formation; and reassembled infrastructures for data collection that began

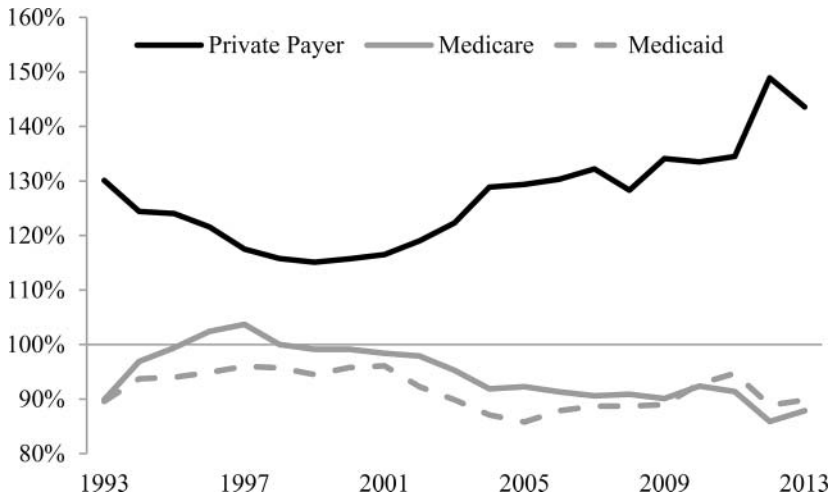
1. According to the World Health Organization, in the United States, per capita expenditures reached \$8,895 in 2012: [www.who.int/countries/usa/en/](http://www.who.int/countries/usa/en/).

to develop in the mid-1980s as the result of efforts by the National Association of Health Data Organizations (NAHDO). APCD advocates used these existing ideas, coalitions, and infrastructures in new ways—greatly expanding the scope and substance of state transparency measures beyond what existed in the past. As a result of these efforts, APCDs have become a dominant model for controlling rising medical costs across the fifty states.

The article proceeds as follows. First, we review the existing literature on health prices as a policy problem and the response of state and federal governments. Second, we introduce our argument about institutional reconfiguration and contrast it with the existing literature, which cannot account for the emergence of APCDs. Third, we test our argument by examining evidence on state innovations in the area of price transparency, which began to emerge in the 1980s. We conclude by suggesting that the emergence of APCDs has important implications both for how we think about the conditions under which state governments can become sites of innovation and for the value of pragmatist institutional theory for explaining policy change in the US context (Stone 1997; Barrilleaux and Brace 2007; Sparer, France, and Clinton 2011; Gray, Lowery, and Benz 2013; Heller, Hoffman, and Bindman 2014; Studlar 2014).

## **Health Care Prices as a Policy Problem**

Despite the recent deceleration of health care spending in the United States, health care expenditures have grown dramatically since the 1970s. By 1980, per capita health spending in the United States was already much higher than in other advanced industrial countries, at over \$1,000 a year (in constant dollars), an amount that more than quadrupled by 1995 (Squires 2012: 2). Twenty years later, in 2015, per capita spending was set to reach \$10,000 (Munro 2015). Recent data from the OECD shows that the provision of services in the United States is generally comparable to that of other countries, suggesting that the key component of the United States' outsized spending is the rising prices for services (Bai and Anderson 2015). As Laugesen and Glied (2011) suggest, primary care physicians in the United States are paid higher fees for office visits in 2009 (\$60 for public payers and \$133 for private payers) than their peers in other OECD countries such as Australia, where the fee for office visits is between \$34 for public payers and \$45 for private payers (see also Glied, Ma, and Pearlstein 2015). The prices typically paid for services and those negotiated with providers have remained proprietary trade secrets (Reinhardt 2006). Equally important, there is now widespread evidence of price discrimination: charges for



**Figure 1** Aggregate Hospital Payment-to-Cost Ratio, 1993–2013

Source: AHA (2014a)

Note: Medicare and Medicaid trends include payments to disproportionate share hospitals.

identical services vary significantly by hospital and within hospital by payer (Frakt 2011; Bai and Anderson 2015).

The pattern of high and opaque health care prices did not emerge in the absence of determined efforts by public and private payers. To reform payments in the Medicare program, the Reagan Administration—under advisement by Secretary of Health and Human Services Richard Schweiker—adapted the idea of diagnosis-related groups (DRGs) from New Jersey’s hospital prospective payment model (Mayes 2007; Goldfield 2010). By setting prices in advance of admissions, hospitals assumed financial risk for their costs and, as a result, learned how to reduce cost drivers such as long hospital stays (Guterman et al. 1988). To address rising spending in Medicare in the 1990s, Congress also passed the Balanced Budget Act of 1997, which eliminated retrospective payment for numerous services, including post-acute care (Vladeck 2004). Private payers, by contrast, have had weaker policy tools at their disposal. In the early 1990s, private payers took a managed-care approach to control costs in the form of network-based contracting, forcing hospitals to negotiate on prices in exchange for inclusion in insurers’ networks (Frakt 2011). Yet, by the end of the decade, the unpopularity of these policies with consumers created pressure for state and federal reforms that led to less restrictive network contracting, giving hospitals greater negotiating power on prices (Blendon et al. 1998). As figure 1 shows, while aggregate hospital payment-to-cost ratios for

Medicare and Medicaid fell below the 100 percent “break-even” mark in the early 2000s, private payers were still well above that mark, by 15 to 30 percent.

### **Understanding State Efforts to Govern Health Prices**

The existing literature on how policy makers have attempted to govern health prices in the United States often focuses on explaining the failure of state efforts to directly regulate the private marketplace. In short, this literature effectively shows that institutional and political constraints at the state level led to the breakdown of rate-setting regimes. Attempts at controlling prices charged to private insurers have, historically speaking, fared poorly compared to reforms within public programs, and even efforts in the public sphere have been less than robust. In the 1970s and 1980s, 15 states developed systems for hospital rate regulation (McDonough 1997a, b; Hackey 1998). Congress also encouraged this practice through Medicaid demonstration programs that allowed states to hire actuarial consultants to develop rates for use in capitated case management programs (Freund and Hurley 1987).

Yet, despite these investments, rate-setting regimes relied on weak institutional foundations. State governments had limited capacity to police regulated parties who frequently dodged rate-setting rules and requirements. As Hackey (1998) shows, budget cuts, staff shortages, and high rates of turnover made it nearly impossible for Massachusetts to address significant problems and criticisms in a cumbersome rate-setting system. This helped to undermine support for rate setting and emboldened the state’s hospital association, which opposed the policy. In other cases, procedural weaknesses and policy complexity enabled regulated parties to capture and manipulate regulatory systems to their own advantage. McDonough quotes a New Jersey insurance official as comparing the state’s rate-setting system to “a methadone program, a guaranteed bottom line every year, and no one could understand how it worked” (1997b: 114). Given these institutional weaknesses, state rate-setting institutions did not create strong policy legacies; in most states, no strong constituency emerged to defend rate setting against the tide of deregulatory pressures that mounted in the 1980s (McDonough 1997a; Melhado 2006). Such regimes only persist in Maryland and West Virginia (see table 1). In short, states were infertile ground for significant reforms to cope with rising health care prices and their future role in this arena would be sharply limited.

**Table 1** APCDs in States That Conducted Hospital-Based Rate Setting

| States with Rate-Setting Regimes | APCD? |
|----------------------------------|-------|
| Arizona                          | No    |
| Connecticut                      | Yes   |
| Florida                          | No    |
| Maine                            | Yes   |
| Maryland*                        | Yes   |
| Massachusetts                    | Yes   |
| Minnesota                        | Yes   |
| New Jersey                       | No    |
| New York                         | Yes   |
| Oregon                           | Yes   |
| Rhode Island                     | Yes   |
| Vermont                          | Yes   |
| Washington                       | Yes   |
| West Virginia*                   | Yes   |
| Wisconsin                        | Yes   |

*Source:* McDonough (1997a, b); Murray and Berenson (2015)

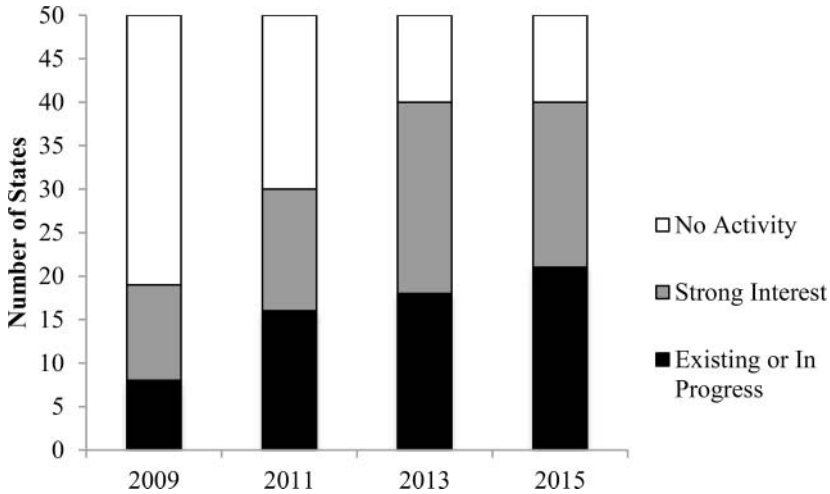
*Note:* \* Rate-setting regime still in existence.

### What Existing Accounts Miss: The Rise of Transparency Instruments

While the weakness of state institutions helps to explain the breakdown of rate-setting regimes, it cannot account for the emergence of a new regime oriented around transparency-based policy instruments rather than regulatory tools (Sage 1999).<sup>2</sup> As figure 2 shows, since the early 2000s, an increasing number of state governments have converged on all-payer claims databases (APCDs), data systems that provide comprehensive information on a wide range of health costs, quality, and outcomes, including prices paid for services (Love, Paita, and Custer 2001). All-payer claims databases, which seek to address gaps in information that consumers, purchasers, and policy makers have about the prices and quality of health services, are becoming dominant in states that once had rate-setting systems. Table 1 suggests that, among the fifteen states that once conducted some form of rate setting, all but three are currently employing an APCD model.

The APCD model was principally developed by members of the New England-based Regional All-Payer Health Information Council (RAPHIC), founded in 2007 and renamed the APCD Council in 2010 (NHIHPP 2009).

2. On the definition of policy instrument, see Lascoumes and Le Gales (2007).



**Figure 2** APCD Development in the States, 2009–2015

Sources: NHIHPP (2009); Love (2011); Love and Sachs (2013); APCD Council (2015)

Whereas existing data sources focused on charged amounts for health care services, RAPHIC's initial work developed tools to bundle together fine-grained data on health encounters that create a claim for payment. Since claims data are typically buried in the administrative databases of hospitals, insurance plans, and state governments, APCDs represent a technologically sophisticated approach to integrating information from a variety of sources to enable consumers, purchasers, and policy makers to make valid comparisons in the costs, quality, and utilization of health care across providers (SHADAC 2011). For instance, states such as Colorado have used APCD data to provide consumers with information about how the cost of procedures varies across acute care hospitals and other medical facilities (CIVHC 2015). New Hampshire's APCD has repackaged this data into a website that allows consumers to compare provider prices and quality for common health services such as hip replacements and births (Porter et al. 2014). States such as Maine and Massachusetts have also deployed their data to empower employers to better understand the causes of variation in the cost and utilization of services, and to adjust their purchasing decisions accordingly (Porter et al. 2014).

As a policy instrument for addressing the problem of health care prices, the APCD has three distinctive characteristics. First, it relies on a particular set of *policy ideas* (Campbell 2004). Major proponents of APCDs embrace

a specific narrative about the causes of high costs and low quality in the marketplace for health services. In this narrative, private information about the true prices paid for services and the quality of services gives those who provide care a significant bargaining advantage over purchasers, consumers, and policy makers. Yet, addressing these information asymmetries requires information that is tailored to the diverse needs of consumers, purchasers, and policy makers. As employer groups such as Catalyst for Payment Reform put it, APCDs produce information that is essential for purchasers to implement “a variety of cost containment strategies, including care management of high-cost patients, reference pricing, centers of excellence for high-cost, complex services, and other strategies including wellness incentives and more extensive coverage of preventive care” (Delbanco 2014). Similarly, consumer groups who support APCDs such as Families USA argue that information on prices and the quality of services is essential for prudent purchasing, often citing research that shows consumers are more likely to select high-value care when they have access to easily interpretable information on price and quality (Families USA 2014). Finally, groups representing state-level policy makers—including the National Governors Association (NGA) and the National Conference of State Legislatures (NCSL)—have embraced APCDs as a means of enhancing cost control within Medicaid programs and other innovative health care models, as well as monitoring and improving population health (NGA et al. 2015).

Second, the main organization supporting these policies, the APCD Council, uses a distinctive *tactical repertoire* to overcome weak state capacity and opposition to policy change (Tilly 1986). At the core of this repertoire is a commitment to “articulating and communicating the purpose of the APCD to multiple cross-cutting stakeholders, often elaborating uses that extend beyond price transparency” (APCD Council 2015: 5). Policy entrepreneurs define a rationale and purpose for APCDs through a “robust stakeholder engagement process” which links payers, providers, consumers, and state officials together to collectively define a shared vision and infrastructure for the database—and to build support for multiple uses of the APCD beyond price transparency itself (APCD Council 2015). To address weak policy capacity in the states, the APCD Council also facilitates external capacity borrowing by seeking grants and guidance from federal agencies such as the Agency for Healthcare Research and Quality (AHRQ); seeking policy input from the Accredited Standards Committee X12 (ASC X12); and securing support from state-based organizations such



**Table 2** Information Typically Collected by Colorado's APCD

|   |                               |
|---|-------------------------------|
| Encrypted member identification code          | Pharmacy claims information   |
| Patient demographics                          | Revenue codes                 |
| Location of services and facility type        | Type of health plan           |
| Service dates                                 | Type of contract              |
| Information on service provider               | Health plan payment           |
| Diagnosis, procedure, and national drug codes | Type and date of bill paid    |
|   | Member payment responsibility |

Source: APCD Council (2015)

as the NGA and the National Association of Insurance Commissioners (NAIC) (Love 2011).<sup>3</sup> Finally, to deal with potential opposition to APCDs in the states, the Council builds evidence from existing examples of policy implementation, demonstrating the costs of interstate policy inconsistencies and the benefits of the APCD model (see, e.g., Elliott, Ackerman, and Millian 1985; Kelemen 2004).

Third, APCDs run on a unique legal and technical *infrastructure* that transforms raw administrative data into calculable information about health care prices and outcomes (Bowker and Star 1999; Muniesa 2007). This infrastructure is made up of both state laws that mandate the disclosure of health data across multiple payers and care settings as well as data systems and organizations which allow states to collect and store information on prices paid for services. Existing sources of data on health care, such as hospital discharge data sets, the Medical Expenditure Panel Survey, and administrative data tend to be limited by a patient population or the point of care where data is gathered (Miller et al. 2010). By contrast, APCDs gather data on health care claims from across the commercial marketplace, public programs, and a wide range of care settings. As table 2 shows, in states such as Colorado, APCDs capture any bill or claim relating to a third-party payer, and only lack data on services provided free of charge or charged to individuals directly, without the involvement of an insurer.

### Accounting for the Emergence of APCDs: Insights from Pragmatist Institutional Theory

The existing literature on the limited success of state efforts to govern health care prices is consistent with a broader finding in historical-institutionalist

3. For examples of capacity borrowing outside health policy, see Evans (2011).

research on health care reform, which emphasizes how structural factors constrain policy development and implementation of public policy (e.g., Steinmo and Watts 1995). Yet, by focusing on how weak state capacity limited regulatory policy, the existing literature cannot account for how policy entrepreneurs developed the kind of policy expertise and political skill necessary to generate a new model of reform like the APCD. This is especially difficult given that policy expertise is scarce in many states and costly to develop (Barrilleaux and Brace 2007; Evans 2011), and that state-level entrepreneurs often face entrenched opposition (Schneider, Teske, and Mintrom 2011; Gray, Lowery, and Benz 2013).

To explain the emergence of APCDs, we borrow insights from what Ansell (2011) refers to as pragmatist institutional theory, a perspective that emphasizes the tracing of how people actually experience institutional rules (in our case, procedurally weak state agencies with few resources available to govern health care prices). As Berk and Galvan (2013), Herrera (2013), and Amberg (2013) have argued, institutions have no agency of their own, either to hamper or enable policy change agents. Rather, they are bundles of raw materials “available for creative reinterpretation or recombination” by change agents (Berk and Galvan 2013: 29). Even when agents lack formal authority or clear capacity to initiate policy changes, they use available institutions and resources in unintended ways to achieve their goals. Unlike entrepreneurs in Kingdon’s (1984) “multiple streams model,” such agents do not use “off the shelf” ideas, institutions, or infrastructures “as is.” Rather, they reassemble those “raw materials” for new purposes (Dorf and Sabel 1998; Campbell 2004; Carstensen 2011; Amberg 2013).<sup>4</sup> For instance, Epstein (1996) shows how politically weak AIDS activists strategically repurposed existing institutional elements such as clinical trials and federally funded research projects to press a recalcitrant Food and Drug Administration (FDA) for expanded access to experimental treatments. While the FDA had the formal authority to shape the rules on access to experimental treatments, AIDS activists cobbled together resources and institutional processes at hand, resulting in a successful challenge to powerful bureaucratic actors (Epstein 1996).

Taken together, these empirical studies characterize a process we refer to as *institutional reconfiguration*, in which policy entrepreneurs creatively recombine existing institutional resources to develop new ideas, tactical

4. As Amberg (2013: 104) puts it, “Reformers . . . create a discursive context in which agents can imagine how to recombine their relationships in ways that could make them more effective in the new context than they were in the old.”

repertoires, and infrastructures to challenge existing policies.<sup>5</sup> Especially given the politically fraught legacy of rate setting, we argue that APCDs are likely to have emerged from such a process. There are three empirical implications of our argument. First, to develop their arguments about the value of APCDs, state-level advocates of APCDs should creatively repurpose existing ideas from experts and public officials about the value of accurate information on the cost and quality of health care, both for correcting market failures and empowering policy makers and citizens to take more decisive action. Second, APCD advocates should build upon existing tactical repertoires for developing diverse support coalitions made up of consumers, purchasers, and policy makers at multiple levels of government. Third, we expect APCD advocates to construct new policy models by using existing legal and technical infrastructures, including pre-existing state laws, health information databases, and administrative organizations. By contrast, if agents are capable of creating APCDs with little political or institutional friction, and without relying extensively on existing ideas, infrastructures, or tactical repertoires, it is unlikely that reconfiguration accounts for the emergence of claims databases.

## Data and Methods

To test our claim about the emergence of APCDs, we collected and analyzed documents published by the APCD Council ( $N=33$ ), including manuals, issue briefs, PowerPoint presentations, and webinars.<sup>6</sup> From these documents, we developed a list of ideas, tactical repertoires, and legal-technical infrastructures critical to the development of APCDs. Second, we used the documents to assemble a list of key actors and events in the development of the APCD model, and supplemented our initial document analysis by examining publicly available APCD Council meeting minutes, secondary literature, and government reports. Finally, we conducted background interviews with two key informants who participated in the founding of the APCD Council. These interviews helped to confirm key features of our narrative and fill in gaps where necessary.

5. For another example of how states creatively use available resources in the context of health policy, see Heller, Hoffman, and Bindman (2014).

6. For a lists of documents analyzed and of those not included in analysis, see Appendixes A and B.

## **Institutional Reconfiguration and the Emergence of All-Payer Claims Databases**

In this section, we present the results of our analysis. We begin by describing the formation of the APCD Council and how a preexisting network of health data policy experts informed the Council's policy ideas and strategies. In particular, members of the National Association of Health Data Organizations (NAHDO) were pivotal in providing the APCD Council with three important "raw materials" it reconfigured to develop its core policy model. As the sections that follow show, the APCD Council built its model for transparency reform by retooling existing policy ideas, repurposing existing tactical repertoires, and reassembling legal and technical infrastructures. We conclude the section by discussing how the Council's efforts have expanded the constituency for, and uses of, health data transparency as a policy instrument.

### **NAHDO as a Source of "Raw Materials" for APCDs**

All-payer claims databases first emerged in the early 2000s, resulting from the efforts of state officials in Maine, Massachusetts, and New Hampshire, as well as the University of New Hampshire's Institute for Health Policy and Practice (NHIHPP 2009). To develop and diffuse their policy instrument of choice, APCD advocates reconfigured ideas, infrastructures, and tactical repertoires that had existed since the 1980s. What made it possible for APCD advocates to borrow and repurpose these existing "raw materials" is their relationship to a network of policy experts at NAHDO, an organization with a long track record in the area of health data policy, whose members well understood the potential and limits of existing information-oriented policy solutions (Love and Rudolph 2012).

Soon after transparency advocates in New England formed the Regional All-Payer Health Information Council (RAPHIC), RAPHIC's Al Prysunka, Craig Schneider, and Patrick Miller sought out the help of NAHDO's Executive Director, Denise Love (Love 2008; Schneider and Shah 2008; NHIHPP 2009). Reaching out to Love made a great deal of sense; by the early 2000s, NAHDO was the principal champion of health data transparency in the United States. Founded during a 1986 meeting sponsored by the Washington Business Group on Health, the Agency for Health Care Policy and Research, and George Washington University's Intergovernmental Health Policy Project, NAHDO had long "supported activities of state-level agencies that are mandated to collect, disseminate, and

use hospital discharge datasets” and efforts to increase “the uniformity of the [health] data being collected, its coding, and accessibility” (NAHDO 2015). As NAHDO framed it, the purpose of these data initiatives went far beyond price transparency alone. Rather, NAHDO advocated for a variety of policies that encouraged health care purchasers to base their decisions on price and quality rather than cost (NAHDO 1988). As later sections will reveal, this broad framing was essential to NAHDO’s ability to build coalitions (Overman and Cahill 1994).

In April 2008, NAHDO’s network ties began to pay off for APCD advocates when the organization secured a grant from the Commonwealth Fund to stage the first National All-Payer Claims Database Conference, which was attended by representatives from more than twenty states, as well as federal agencies, universities, hospitals, health plans, and purchasers (NHIHPP 2009: 5). During her introductory remarks at the conference, Denise Love explained that NAHDO had been “dedicated to the improvement and public availability of health care data since 1986” and, since then, had developed extensive organizational expertise (Love 2008). By coordinating national meetings of state data organizations, Love suggested, NAHDO had helped advocates of transparency reform to learn from and build on successful past efforts:

We’ve got several states who have figured this out, so let’s get them all in a room and, you know, don’t reinvent the wheel and get those states who have to ramp up quickly to pick the brains of those that know how to do it . . . I think as we’ve seen with hospital data we get some states that figure it out. They give the lessons learned to the other states who figure out new things, and we keep that sharing and we keep that loop going. (Love 2008)

With NAHDO’s help, RAPHIC’s membership quickly grew beyond New England to include states as far west as Utah and Hawaii; the organization soon renamed itself the APCD Council (APCD Council 2015). Yet, the Council relied on NAHDO for more than growing its membership. Rather, members of the APCD Council began to draw on NAHDO’s extensive knowledge of health data policy. As an example of this process in action, table 3 assesses NAHDO coauthorship of publicly available APCD Council reports. Of 33 APCD Council documents, 22 (67 percent) were coauthored by at least one member of NAHDO. As the following sections suggests, APCD advocates did not build health data reforms from scratch. Rather, with help from NAHDO, they repurposed existing ideas, infrastructures, and tactical repertoires to build reforms that were more politically and institutionally robust.

**Table 3** NAHDO/APCD Council Coauthorships

| Documents with At Least One APCD Council Coauthor | No. (%) of Documents with NAHDO Coauthor |
|---|--|
| Manual/guidebook ( $N=6$ )                        | 6 (100%)                                 |
| Analysis of past APCD efforts ( $N=4$ )           | 4 (100%)                                 |
| Issue brief or fact sheet ( $N=9$ )               | 4 (44%)                                  |
| Webinars ( $N=11$ )                               | 6 (55%)                                  |
| Other ( $N=3$ )                                   | 2 (67%)                                  |
| Total ( $N=33$ )                                  | 22 (67%)                                 |

*Source:* Authors' analysis; see appendix

*Note:* Excludes twenty-seven documents published on site without at least one APCD Council coauthor.

### Reshaping Health Data Policy Ideas: Dissemination and Integration

NAHDO was founded at the high point of market-oriented ideas in health policy (Overman and Cahill 1994; Sage 1999).<sup>7</sup> Since the initial Medicare “cost crisis” of the early 1970s, reformers in successive presidential administrations had embraced the ideal of “properly functioning medical markets,” in which “providers would race to win consumers, lowering costs and raising quality” (Morone 1988: 106). Adherents of the “competitive markets” approach argued that, in order to improve payers’ and consumers’ ability to buy low-cost and high-quality services, government agencies had to collect better information (Enthoven 1978; Kronick 1992; Osborne and Gaebler 1992). With the creation of the Agency for Health Care Policy and Research (AHCPR)—later renamed the Agency for Healthcare Research and Quality (AHRQ)—in 1989, reformers also embraced the collection of data to support the development of clinical guidelines, which they argued would control costs by reducing the inappropriate use of health care services (Grogan et al. 1994). Indeed, by 1988, NAHDO documents also argued that government should develop information-collection and dissemination policies to ensure that “price and quality, in addition to cost” would become core purchasing criteria for health care (NAHDO 1988).

To develop a rationale for APCDs, members of the Council worked with NAHDO leadership to reconfigure two policy ideas about how enhanced collection and dissemination of health data, as opposed to direct regulation,

7. To be sure, there have always been multiple rationales for requiring the disclosure of health data, yet the market rationale, as Sage (1999) suggests, is the one most commonly articulated.

**Table 4** Ideas Reconfigured by APCD Council

| “Raw Material”  | Influence on APCD Development  | How APCD Council Reconfigured   |
|---|--|---|
| Information, as opposed to direct regulation, can be a tool for health care reform. | Rationale for government action on health care cost and quality without direct rate setting. | Created data products and dissemination strategies that better reflected needs and incentive structures of end-users. |
| Databases are a key information-based policy instrument.                            | Conceptual model for policy.   | Defined approach to data integration to address data gaps, need for standardization, and appropriate indicators.      |

could improve the quality and cost of health care (see table 4 for summary). First, APCD advocates helped to reshape NAHDO ideas about the value of information. As NAHDO leadership observed the results of health data reforms, they began to develop a more specific understanding of how and when information might work. For example, a 2001 *Health Services Research* article coauthored by Denise Love, NAHDO Deputy Director Luis Paita, and health services researcher William S. Custer argued that transparency reforms could only improve competition in health markets when they provided “economic value to purchasers and providers” by delivering information that “strengthens their decision making in a timely manner in formats that are relevant to their users” (Love, Paita, and Custer 2001: 286). Without up-to-date information on medical errors and the costs associated with them, for example, it would be difficult for purchasers to make decisions to shape benefit plans. Moreover, transparency programs were more likely to be successful when providers and purchasers had “financial incentives for participation” in data collection and use (Love, Paita, and Custer 2001: 286).

All-payer claims database advocates drew on and gradually reshaped this idea. At the first RAPHIC/NAHDO–hosted conference, New Hampshire officials Tyler Brannen and Andrew Chalsma gave examples of how their agencies were working to develop products tailored to consumers, purchasers, and providers (Brannen 2008; Chalsma 2008). Soon, Colorado adapted the idea by allowing “providers, purchasers, researchers, and other organizations” to request “limited custom reports and data sets to support

the Triple Aim of improving care for individuals, improving health for populations, and lowering costs” (CIVHC 2015: 26–27).

Yet, as leaders of NAHDO and the Council put it in an issue brief, political opposition to the release of some payment data on the part of some insurers and providers—who viewed some kinds of payment information as proprietary—made customized data release “the most sensitive aspect of APCD implementation,” a fact reflected in the “variation in policies and practices across states” (Porter et al. 2014: 4). Given this delicate political situation, the APCD Council initially resisted adopting any single definition of “good” data release policies; rather, its reports gradually began to embrace a model that emphasized multiple data products for a variety of user populations (Miller et al. 2010). By 2015, the Council’s *All-Payer Claims Database Development Manual* embraced a more specific set of user-centered options for data release (APCD Council 2015: 93).<sup>8</sup>

A second core NAHDO idea that APCD advocates borrowed and reshaped concerned the kind of data that was necessary to enable market reform. In the 1990s, NAHDO built a strong reputation for helping states to create databases of patient discharges from inpatient hospitals, emergency departments, and ambulatory surgery centers (Overman and Cahill 1994; Boles and Hicks 1995; Eaton 2013). Yet by 2001, NAHDO leaders argued, “No single data source will likely ever provide a complete snapshot of health and health system performance” (Love, Paita, and Custer 2001: 286). Instead, since service delivery spilled over sites of care and data sources, new database models should focus on: (1) linking sources of discharge data with claims data to evaluate patterns of care and document variations in health practices and outcomes; (2) including data elements that reflected changes in the marketplace, such as a gradual move to outpatient settings; and (3) standardizing data elements to enable valid comparisons across states and care settings (Love, Paita, and Custer 2001: 285–86).

Advocates of APCDs borrowed on these ideas, arguing that integrating, updating, and standardizing multiple types of health data was essential to developing “data-driven health reform efforts resulting in impacts (including improved access to care, reduced costs, and improved quality) that can be effectively measured” (Miller et al. 2010: 5). During a meeting

8. These standards included structured reports for common data requests, customized user reports created for specific employer groups or providers, web query systems for consumers and purchasers, transparency websites that post median prices for common procedures by facilities and/or payers, as well as files designed specifically for researchers.



held by NAHDO and RAPHIC in 2009, Denise Love argued that APCDs provided a conceptual model that could address these issues (NHIHPP 2009: 6). As RAPHIC's Patrick Miller put it, the concept of the APCD emphasized the inclusion of common types of data from private or commercial payers, Medicaid, and Medicare. This concept could be extended to include other sources, including federal employees, workers' compensation, and uninsured claims data. All-payer claims databases also provided a legal framework for data submission by carriers, third-party administrators, and pharmacy benefits managers (NHIHPP 2009: 7–8).<sup>9</sup> Within a year, APCD Council issue briefs argued that by linking data from multiple sources together, claims databases held the potential for a “much deeper understanding of patterns, quality, and costs of care across the entire population” (Miller et al. 2010: 5), and could answer a variety of questions, including but not limited to: “which hospitals have the highest prices?”; “which health plan has the best discounts?”; and “are established clinical guideline measurements related to quality, safety, and continuity of care being met?” (Miller et al. 2010: 5–6). By 2015, the Council could claim that APCDs provided the main model used by states to “fill critical information gaps, promote health care transparency initiatives, and provide actionable information for their stakeholders” (APCD Council 2015: 3).

### Repurposing Tactical Repertoires: Coalitions, Resources, and Frames

To deal with institutional barriers to reform, NAHDO also embraced tactical repertoires that organized multiple coalition partners in reform, including actors from the business sector, who found it difficult to mobilize in the absence of a central political entrepreneur and were likely to be suspicious of state-oriented policy solutions (Brown 1993; Martin 1993).<sup>10</sup> Throughout the 1990s, NAHDO meetings, workshops, and conferences articulated a distinctive model of coalition building that relied on consumer and purchaser groups (Overman and Cahill 1994; Eaton 2013: 92). A frequently cited example of this model is a 1986 effort by health reformers in Pennsylvania, including State Rep. Mark Cohen (D–Philadelphia).

9. Miller also provided examples of how New Hampshire's APCD, by including outpatient claims, captured important indicators that reflected changes in the health market (NHIHPP 2009: 11–12).

10. Business allies were particularly likely to be suspicious about arguments focused on prices rather than service volume as contributing to health care costs (see White 2011).

Initially, Cohen had pushed for a “truth-in-treatment” list of hospital prices, which would be published regularly in newspapers, but ran into opposition from hospital associations that ultimately undermined the initiative (Regulating Health Care Costs 1985). Undaunted, Cohen courted support from employers, labor unions, and officials in the state’s Republican administration who were interested in improving the quality of health data to empower a variety of approaches to cost- and quality-control beyond price transparency, including utilization control and patient safety initiatives (Health Care Cost Containment Act 1986; Overman and Cahill 1994). The result was the adoption in 1986 of a bipartisan reform, Act 89. While Act 89 created nothing like the price transparency measures Cohen and his supporters had initially envisioned, it did require hospitals and ambulatory surgery centers to provide raw cost and utilization data on all covered medical services to a newly created Pennsylvania Health Care Cost Containment Council (PHC4) made up of state officials, payers, and providers (PHC4 2003).

All-payer claims database advocates repurposed three tactical repertoires that NAHDO developed in the 1990s (see summary in table 5). First, and perhaps most importantly, the APCD Council repurposed NAHDO techniques for building support for data reforms among multiple stakeholders. By the early 2000s, NAHDO leadership had recognized that persistent provider opposition had hampered even modest attempts at data collection and dissemination reforms. As one NAHDO-supported study put it, mandatory data collection systems “may take years to enact and implement” and may require tradeoffs with providers during the legislative process that result in “restrictions in public reporting, such as prohibition of collection or disclosure of provider-level data” (Consumer-Purchaser Disclosure Project 2004: 7). By contrast, voluntary systems may “meet with less resistance from the provider community” but would still allow providers to refuse to participate, be subject to private “deal-making,” and “lack transparency in collection and analytic methods” (Consumer-Purchaser Disclosure Project 2004: 7). To address these concerns, NAHDO contracted with the Agency for Healthcare Research and Quality (AHRQ) and the National Opinion Research Center (NORC) to examine how state discharge databases could be used not only by purchasers but also by providers and provider associations who had generally opposed such measures (Schoenman et al. 2005). Their investigation found numerous examples of how states such as Montana used administrative data to conduct benchmarking on the “length of stay and charges for common inpatient diagnoses” (Schoenman et al. 2005: 72). In other states, hospitals used discharge

**Table 5** Tactics Reconfigured by APCD Council

| “Raw Material”  | Influence on APCD Development                                 | How APCD Council Reconfigured  |
|---|---|--|
| Building coalitions around multipurpose datasets.                                       | Model for coalition building with consumer, purchaser groups. | Expanded coalition to build support for collecting, disseminating claims data.                     |
| Facilitating transfer of capacity between federal and state agencies, among states.     | Network of partners for policy planning, development.         | Used network to diffuse new policy model, integrate data sources, advocate for metadata standards. |
| Deploying evidence on the benefits of standard health data policies across state lines. | Rationale for new states to emulate existing policies.        | Built consensus on core data elements with technical advisory panel.                               |

data to satisfy requirements to report to state disease registries and meet federal program reporting requirements (Schoenman et al. 2005: 68–77).

Thus, by the time RAPHIC was formed, its members had examples of how to build coalitions around multipurpose datasets, a repertoire they began to use to build support for the APCD model (NHIHPP 2009; Wadhwa 2010). As one APCD advocate in Oregon later put it, “NAHDO meetings and webinars laid the foundation” for coalition-building efforts (Kolmer 2013: 12). Using the language of software development, APCD advocates began to suggest that state leaders engage with stakeholders to develop a set of “use cases,” or concrete examples, of “what questions APCDs will answer for which stakeholders,” which would ultimately become part of a “showcase” on the council’s website (APCD Council 2015: 17). These use cases helped APCD advocates to expand the number of potential stakeholders to include state legislators, executive agencies, and providers (see table 6). For example, since health care providers had “historically felt that claims data and billing practices are not accurate enough to support reporting at the individual or provider level,” the *All-Payer Claims Database Development Manual* provided examples of states that initially reported data at higher levels of aggregation than individual providers to address concerns about data quality. The APCD Council’s publications also illustrated how providers used claims data from the New

**Table 6** Common APCD Stakeholders and Concerns

| Stakeholder   | Concerns  | Approach to Addressing Concerns  |
|---|---|--|
| Policy makers   | Cost and infrastructure requirements; safeguards.             | Stakeholder engagement; identify diversified funding structure, build off existing systems and legislation for data collection.  |
| Payers  | Burden of data submission; disclosure of negotiated rates.    | Include payers at the beginning, throughout APCD cycle, use existing standards to minimize data collection burden, establish protocols for release.                                      |
| Providers   | Believe that claims data are inaccurate for assessing value.  | Include providers in stakeholder meetings; use higher level of aggregation than individual providers to address concerns about data quality at the individual provider level, initially. |
| Employers   | Benchmarks for consumer-friendly price transparency.          | Include employers in stakeholder groups, specify requirements of reporting entities.   |
| State agencies  | Maximizing use of APCD data and oversight.                    | Establish memoranda of understanding, data use agreements.   |
| Consumers   | Benchmarks for consumer-friendly price transparency; privacy. | Include consumers in stakeholder groups, create robust data safeguards.  |
| Health information exchanges (HIE) and Health insurance exchanges (HIX) | Technical barriers to linking data.                           | Include HIE and HIX leadership in APCD stakeholder groups.   |

*Source:* APCD Council (2015)

Hampshire Accountable Care Project to analyze regional-level reporting on cost, utilization, and disease characteristics (Porter and Love 2013; APCD Council 2015).

A second tactic the APCD Council borrowed from NAHDO was facilitating the transfer of resources both among states and between states and

federal agencies. Throughout the 1980s, advocates of health data reform lacked the resources, expertise, or professional credentials to convince potential stakeholders that access to hospital cost and utilization data would be worth the trouble to collect (Imershein, Rond, and Mathis 1992). Yet, soon after NAHDO's creation in 1986, the organization initiated efforts to share resources with reformers with little planning capacity of their own, allowing states with few resources to connect with states that offered to share computer code, access to data servers, and linkages with high-quality vendors (Eaton 2013). By the early 2000s, NAHDO had also become a clearinghouse for measurement tools that illustrated the value of health data sharing and dissemination policies (Love, Paita, and Custer 2001: 282–84). In 2007, for example, NAHDO assisted advocates of new health data legislation by publishing reports on how states with similar fiscal and political scenarios, including South Carolina, had benefited from implementing a patient-level statewide reporting system (NAHDO 2007: 15–17). NAHDO also facilitated states' access to policy planning capacity that existed in federal agencies. In the 1990s, the organization acquired funding for the development of inventories of state data elements from AHCPR (later AHRQ) for the creation of statewide health databases (NAHDO 1997). Using grants from AHRQ's Building Research Infrastructure and Capacity program, NAHDO assisted eligible states in the development of data clearinghouses, communications modules, and health quality indicators (AHRQ 2001). Under the auspices of AHRQ's Healthcare Cost and Utilization Project, NAHDO also secured capacity to conduct research on the obstacles of collecting and improving outpatient datasets, and to identify technical and organizational priorities in the development of national outpatient data standards (NAHDO 2005; Andrews 2013).

The APCD Council adapted the capacity-sharing tactic to build and diffuse its core database model (Costello and Taylor 2011; Love and Sullivan 2011; Love and Sachs 2013; Porter et al. 2014). Through a variety of mechanisms, including a Technical Advisory Panel, the Council made key links to insurers such as WellPoint, policy professionals at the National Association of Insurance Commissioners, elected officials at the National Conference of State Legislatures, and members of standards development organizations (see table 7). These stakeholders became critical to the Council's consensus-building process. Prior to issuing its recommendations for standardizing APCD data formats, for example, the Council spent over a year conducting sessions with these organizations and gaining their input on the final set of recommendations (Love 2011). State governors identified opportunities for making the “business case for why [an APCD]

**Table 7** Examples of National Organizations Linked to the APCD Council

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**Federal agencies:** Agency for Healthcare Research and Quality (AHRQ), Centers for Medicare & Medicaid Services (CMS), Centers for Disease Control and Prevention National Center for Health Statistics (CDC/NCHS), HHS Office of the Assistant Secretary for Planning and Evaluation (ASPE).

**National associations of state officials:** National Association of Health Data Organizations (NAHDO), National Governors Association (NGA), National Association of Insurance Commissioners (NAIC), National Conference of State Legislatures (NCSL), National Association of Medicaid Directors (NAMD).

**Standards development organizations:** Accredited Standards Committee X12 (ASC X12), National Council for Prescription Drug Programs (NCPDP).

**Insurance industry:** America's Health Insurance Plans (AHIP), UnitedHealth Group, WellPoint, Kaiser Permanente, Aetna.

**Academic/research:** AcademyHealth, University of New Hampshire.

**Philanthropy:** Commonwealth Fund, Gary and Mary West Center, Robert Wood Johnson Foundation.

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*Source:* APCD Council (2011); Love (2011)

*Note:* List is not exhaustive.

helps the state” and demonstrating that the data APCDs proposed to collect “match[ed] state priorities” (Finnegan 2010: 6). Further, the Council drew on support from AHRQ, which began to promote APCD Council metadata standards through its US Health Information Knowledgebase (USHIK) (Chudy 2010; Fitzmaurice 2010).

A final NAHDO tactic that the APCD Council repurposed was identifying the benefits of standardizing data policies across state lines. Since NAHDO's founding, its leaders carefully monitored variations in state health data policies (NAHDO 1989). In 1990 and 1991, for example, NAHDO surveyed states to ask what data they collected on health costs as well as its accessibility to consumers and insurers (Boles and Hicks 1995). The report based on these surveys illustrated two important contrasts between advanced states such as Pennsylvania—the only state that collected and published reports using mortality data—and states such as Indiana, which provided data only on hospital charges and service volume, and Delaware, which provided data to the public but only after a lengthy and costly approval process. As a 1991 *Health Affairs* article that reported on the “sorely needed” NAHDO study suggested: “the average consumer and even the fairly sophisticated employee benefits manager, unless they choose their state very carefully, may be out of luck” (Singer 1991: 151). From these surveys NAHDO issued periodic reports such as *A Guide to*

*State-Level Ambulatory Healthcare Data Collection*, which outlined states' response to the health care system's shift from inpatient to outpatient care (NAHDO 1997). Rather than lay out a clear series of policy recommendations, however, the report billed itself as a "first-time-ever attempt to gather and produce information" on patient-level data collection activities in numerous outpatient settings (NAHDO 1997: 1). Perhaps even more importantly, surveys, state scorecards, and reports that analyzed differences among states built political tension by publicizing heterogeneity. Throughout the 1990s and 2000s, NAHDO continued to produce reports that publicized the imbalance between state transparency frameworks and the need for reform. In 2007, for example, NAHDO leveraged interstate disparities in health costs to persuade state legislators in Mississippi that developing a comprehensive data collection system would dramatically bring down state health spending (NAHDO 2007: 14).

Members of the APCD Council repurposed this tactic. To be sure, advocates of APCDs recognized the importance of illustrating the benefits of a standardized policy model that would minimize inequitable geographic operational costs. They frequently used examples of how standardizing APCD data requirements across states "creates efficiency in terms of getting the information (from the data) back to the providers and the consumers for decision making" (NHIHPP 2009: 16). Yet, at the same time, Council reports emphasized that varying coalitions and policy constraints across states might lead to different analysis and reporting tools as well as unique mixes of data elements (APCD Council 2015: 48). To circumvent these challenges, the Council staged meetings with national organizations to develop consensus across all fifty states "to ensure that states collecting the same data would do so in the same manner" (Costello and Taylor 2011: 2). Supported by AHIP and an AHRQ task order in 2009 and 2010, the Council formed a Technical Advisory Panel made up of state and federal policy makers, payers, and provider groups (see table 7) (APCD Council 2011). The result of these meetings was a capacious set of common data elements that APCDs would include, such as procedure codes, diagnoses, and payment amounts (APCD Council, UNH, and NAHDO 2012). To facilitate the diffusion of these standards, the Council partnered with the Accredited Standards Committee X12 (ASC X12) to develop a Uniform Medical Claims Payer Reporting Standard and data reporting implementation guides (APCD Council 2011; ASC X12 2012). Standardizing claims data reporting, as the Council's Patrick Miller put it, would "result in lowered administrative costs for payers, enable states to more easily share data between them, provide predictability for vendors, states, and payers on

**Table 8** Infrastructures Reconfigured by APCD Council

| “Raw Material”   | Influence on APCD Development                                   | How APCD Council Reconfigured   |
|--|---|---|
| State health data legislation (e.g., PA Act 89).               | Precedent and institutional framework for all-payer reforms.    | Drafted new legislation to expand sites, populations covered by health data laws. |
| State and federal databases (e.g., Washington State VistaPHw). | Technical and organizational capacity for database development. | Developed new technical model for collecting, managing, and disseminating data.   |
| State data agencies (e.g., Maine Health Data Organization).    | Organizational capacity for database development.               | Developed new organizational model to support APCDs.                              |

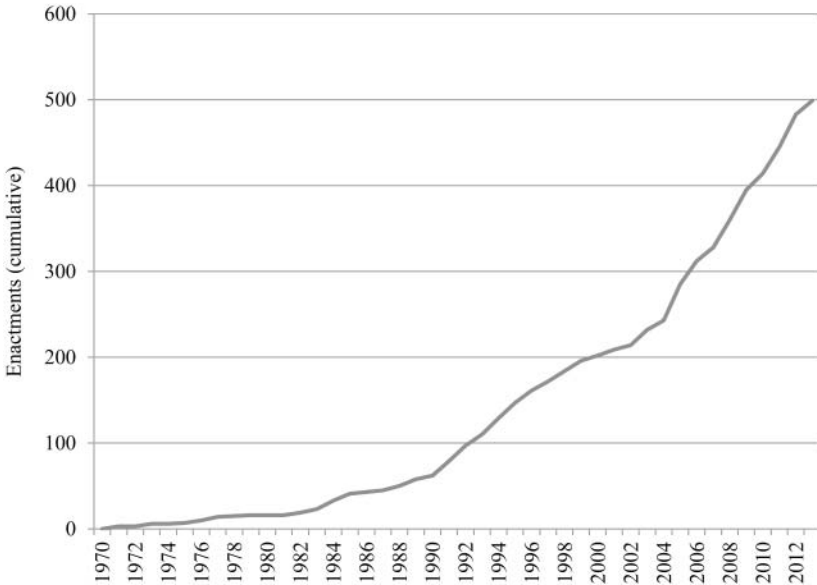
data layouts, and provide a public forum for the addition of new data elements as APCDs evolve nationally to meet state transparency and national health reform needs” (ASC X12 2011).

### Reassembling Health Data Infrastructure: Laws, Databases, and Organizations

In addition to reshaping ideas and tactical repertoires for information-based health policy instruments, advocates of APCDs reassembled three types of existing legal and technical infrastructures that NAHDO had been instrumental in building in the late 1980s and 1990s (see summary in table 8). While these existing laws and databases were designed for a variety of purposes, the APCD model showed how these disparate data sources could be stitched together to address gaps in the knowledge of policy makers, consumers, and purchasers about “how and where health care dollars are being spent” (Miller et al. 2010: 5).

A first important infrastructure the APCD Council reassembled was a diverse set of laws that required health care providers and payers to disclose health information. Legislation enabling state governments to collect health data from providers and payers emerged sporadically in the 1970s and 1980s, growing significantly after the founding of NAHDO in 1986 (see fig. 3). Early reforms included Certificate of Need laws, which enabled states to collect data on inpatient hospital stays. Yet states were slow to develop data on costs and utilization on physician visits, nursing home stays, and ambulatory care services (NAHDO 1993). By the early





**Figure 3** State Legislative Enactments Supporting Health Data Collection (Cumulative), 1970–2012

*Source:* Authors' tabulation of CPR (2014)

2000s, NAHDO surveys revealed that virtually all states had some data-collection strategy in place, but that data collection was largely limited to inpatient discharges, and often failed to include information on ambulatory surgical units and emergency departments (NAHDO 2007).

Despite the weaknesses of existing legislative frameworks, APCD advocates explicitly recognized the importance of building on what exists rather than “reinventing the wheel.” For example, policy entrepreneurs in New York maneuvered around organized opponents by including the measure in 2011 budget legislation and packaging the measure as an update to the state’s Statewide Planning and Research Cooperative System (SPARCS) which had existed since 1979 but had not collected financial information on health care services beyond charges (Senate Bill 2809D 2011; Miller et al. 2015: 2–3). Under the new proposal, the New York Department of Health began to integrate SPARCS’s discharge data with information on claims and clinical data from regional health organizations across multiple payers (New York Department of Health 2015). To support the effort, the APCD Council monitored the first four years of implementation and provided a series of recommendations for further adapting routines for stakeholder

engagement and data-quality management (Miller et al. 2015). These reforms, the Council argued, would help to address political opposition to the law from payers that saw requirements for data release as an “unfunded mandate” or a violation of antitrust laws (Miller et al. 2015: 65–66).

Second, APCD advocates built upon an existing physical infrastructure made up of health databases. Since the 1990s, state health data organizations had focused their energies on creating databases that covered information on hospital discharges, which represented a significant improvement on existing administrative and employment-based reporting systems’ critical data elements, which rarely contained significant provider-level information (Schoenman et al. 2005). These databases were designed to provide raw data to purchasers or state officials in raw form, and were rarely repackaged for consumers, except in occasional consumer guides (Overman and Cahill 1994).

To implement the new claims database model, the APCD Council and its members provided guides for how to use and adapt existing data sources for new purposes (Love 2011; Love and Steiner 2011; APCD Council 2015). One of the earliest challenges states faced was ensuring that payer data submissions were complete and accurate. To address these challenges, states such as Massachusetts worked with payers to develop manuals to guide the data submission process (CHIA 2014). To address scrutiny of APCD data quality, officials in Minnesota also used the statewide hospital discharge database “as a reference database, benchmarking the APCD with the hospitalization data for validity checks” (APCD Council 2015: 59). States such as Colorado, Vermont, and Massachusetts also developed special data use agreements and user affidavits to deal with restrictions on access to Medicare and Medicaid data (APCD Council 2015: 52). New Hampshire also undertook innovations to improve the salience and usability of its consumer-facing database, which helped to highlight “wide gaps in provider practices—particularly between hospital outpatient departments and freestanding facilities” (Tu and Gourevitch 2014: 3).

A final infrastructure that APCD advocates built upon was the network of state agencies that had long managed hospital discharge databases. These agencies were often state departments of health or independent data commissions such as the Pennsylvania Health Care Cost Containment Council (PHC4) (Love, Paita, and Custer 2001). While many of these organizations were capable of managing small-scale data projects, most lacked the organizational capacity to take on large, politically volatile projects such as APCDs, which required a greater level of expertise and ability to negotiate with multiple stakeholders. During the early

implementation of APCD legislation, New York's Department of Health, for example, had difficulty carrying out most claims database functions, and lacked a process for securing stakeholder support (Miller et al. 2015: 6–7).

To address these challenges, states retooled their existing organizational structures to buffer APCDs from political conflict. For instance, rather than housing the APCD in existing state data agencies or departments of health, states such as Virginia and Colorado created independent, nonprofit organizations that allowed data stakeholders to directly collaborate in decision making (APCD Council 2015: 32). States such as Vermont and Massachusetts, by contrast, built collaborative governance into existing independent state agencies through advisory boards (CHIA 2011; GMCB 2015). Similarly, the Maine Health Data Organization integrated payers, consumers, employers, and providers directly into a twenty-one-member policy board, which oversaw data collection, distribution, analysis, and rulemaking (Prysunka 2010: 11). In sum, as with databases themselves, these organizational innovations reworked prior state infrastructure to support new policies.

### Transparency and the New Politics of Prices

The APCD Council's efforts at institutional reconfiguration—reshaping policy ideas, reassembling existing infrastructures, and repurposing tactical repertoires—have led to significant changes in the politics and policy of price transparency. First, by reshaping ideas about how to improve the effectiveness of information on health prices, the APCD Council has helped to popularize claims databases as a critical tool for advocates of payment reform. In 2009, employer associations concerned with improving the value of health care, together with the Pacific Business Group on Health and the California Healthcare Foundation, formed an organization called Catalyst for Payment Reform (CPR) (CPR 2015). In its mission to drive “robust changes outside of the Medicare program,” CPR vigorously advocates for price-transparency legislation to achieve cost savings for purchasers, support for consumer choices in the health care market, and reductions in unwanted geographical price variation (CPR 2015). With high standards for state price-transparency laws, embodied in annual scorecards, CPR aims to “take a deeper look at whether these laws were achieving the ultimate goal—ensuring consumers have access to meaningful information about the price of their health care” by examining state laws, regulations, and websites (CPR 2014: i). These scorecards treat

APCDs as the “ideal source of data” for price transparency, in part because they fill in “longstanding gaps” in health care information (CPR 2014: 6). As a result, CPR’s annual scorecard automatically awards 50 out of 100 points to states that use APCDs as a data source (CPR 2014: 7).

Second, the work of transparency advocates has created new forums in which providers, payers, consumers, and public officials share ideas related to transparency and build linkages across issues of cost and quality. Philanthropic foundations have been powerful, yet quiet, partners in this effort (Alcalde 2015; Oakman 2015). In 2013 and 2015, the Robert Wood Johnson Foundation hosted a National Healthcare Transparency Summit in Washington, DC generated information about alternative transparency innovations embraced by both Democrats and Republicans as well as every major transparency stakeholder group in the country (National Summit on Health Care Price, Cost and Quality Transparency 2015). News coverage of the summits reveals a shift in providers’ attitudes toward transparency. As the president of one state medical society who attended the 2015 summit suggested, “physicians have a reputation for being difficult,” but they are the “most natural and best partners to lead the transparency movement because no one else is as closely aligned with patient needs. . . . Physicians are now being asked in many cases to not only be responsible for delivering high quality healthcare, but they’re being asked how we should be delivering high quality healthcare at the most appropriate cost possible” (Firth 2015).

Third, by reassembling existing legal and technical infrastructures, the APCD Council has assisted in the implementation of payment reform alternatives such as Accountable Care Organizations (ACOs), which depend on integrated, real-time data on provider performance and outcomes (Fulton et al. 2015; Shortell et al. 2015). Massachusetts, for example, is leveraging its APCD as a data source to support an ACO initiative under a federal State Innovation Model grant (EOHHS 2013: 26). In 2011, the New Hampshire Institute for Health Policy and Practice received a Robert Wood Johnson Foundation grant to use the state’s APCD to create quality metrics (Heller, Hoffman, and Bindman 2014: 672). These researchers also used the APCD to evaluate how well statewide ACO projects controlled per-member costs (Porter and Love 2013).

Finally, the APCD Council’s tactical repertoire has also permitted the development of a broader coalition behind price transparency reforms at the state level. Consumer groups such as Families USA argue that “states can play a pivotal role in improving price transparency” and that “moving forward, states should consider taking steps to improve consumer access

to meaningful price and quality information” (Families USA 2014: 10). Insurers now publicly advocate for “a parsimonious set of meaningful and useful” provider performance indicators that expand transparency in cost beyond public programs (Kramer 2013: 1). Most importantly, while provider groups remain concerned about inaccuracies of individual-level cost data, the American Hospital Association now argues that “state governments, working with their state hospital associations, should expand existing efforts to make hospital charge information available to consumers” (AHA 2014b: 2).

Evidence that this broad coalition can act collectively can be found in the case of *Gobeille v. Liberty Mutual Insurance Company* (577 U.S. \_\_\_\_ [2016]), in which Vermont’s APCD attempted to overturn a Second Circuit ruling that the Employee Retirement Income Security Act (ERISA) preempts state data submission requirements for employer-sponsored self-insured health plans (Lacey 2015). Vermont’s petition received support in the form of amicus briefs from a cross-cutting set of over twenty stakeholders (SCOTUSblog 2015). These briefs were filed not only by NAHDO, the APCD Council, and numerous organizations of state officials (including the NGA and the NAIC), but also the American Medical Association and the American Hospital Association, both of which argued that APCDs are a critical component of their efforts to develop and use health data to improve patient outcomes (AHA and AAMC 2015; AMA and VMS 2015). By contrast, only one amicus brief—whose coauthors included the ERISA Industry Committee, AHIP, and the US Chamber of Commerce—was filed in favor of Liberty Mutual (SCOTUSblog 2015).

As could be expected given the Supreme Court’s tendency to expansively interpret ERISA preemption, the justices did not readily side with APCD advocates. In a 6–2 opinion authored by Justice Kennedy, the Court held that ERISA preempts Vermont’s statute as applied to self-insured plans because it regulates the collection of plan information, which is a key facet of plan administration (*Gobeille v. Liberty Mutual Insurance Company*). In the aftermath of this decision, APCD advocates may still be able to rely on their existing repertoire of coalition building to overcome this policy roadblock. This is particularly true given the support APCD advocates have sought and received from numerous key stakeholders as well as federal officials, including in the Department of Labor, which the *Gobeille* majority ruled is alone authorized to administer the reporting requirements of ERISA plans, and supported the United States’ amicus brief for Vermont (Rosenbaum 2016). As Justice Breyer’s concurrence suggests, states may be able to petition to develop ERISA reporting requirements that meets states’ needs or delegate some authority to states to obtain such

data. In July 2016, the Employee Benefits Security Administration also proposed a rule eliminating provisions that exempted small, self-insured group health plans from filing Form 5500 (Jost 2016). While this form does not collect the kind of detailed information required by APCDs, the rule may signal the continued interest in promoting data collection on the part of the broad, intergovernmental coalition built by APCD advocates thus far (Newman 2016).

## Conclusion

Our study suggests that there has been a significant shift in state-level efforts to address the problem of rising health care prices. During the 1980s and 1990s, rate-setting regimes ran into political and institutional barriers that existed at the state level (McDonough 1997a, b; Hackey 1998). While existing scholarship helps to explain the breakdown of these regimes, we show that a new policy model has emerged in their place which emphasizes the role of health data transparency as a necessary component of reform and uses APCDs as a key policy instrument. The rise of APCDs, we suggest, emerged from a process of institutional reconfiguration (Berk and Galvan 2013; Berk, Galvan, and Hattam 2013). To address political and institutional barriers to reform, APCD advocates leveraged an existing network of health data experts at NAHDO. The APCD Council built on and reshaped NAHDO policy ideas about when transparency reforms work; repurposed tactical repertoires such as capacity borrowing to shore up APCD efforts in states with few resources; and reassembled existing legislation, databases, and state data agencies to cope with technological hurdles and political opposition to transparency initiatives.

The Council's efforts have made states into viable sites for price-transparency reforms, and have made APCDs a key instrument in those reforms. The political success of APCDs notwithstanding, however, recent research suggests that the effect of transparency on prices is conditional at best (Austin and Gravelle 2007).<sup>11</sup> Two reasons for this are worth highlighting here. First, transparency alone cannot address the persistent problem of noncompetitive health care markets. For example, since the implementation of a strong transparency regime, New Hampshire faced difficulty in reducing prices, in part because of a highly uncompetitive hospital marketplace (Tu and Gourevitch 2014). Second, as Cutler and Dafny (2011) argue, transparency can also incentivize hospitals to raise their

11. But see Wu et al. (2014).

prices, especially in markets where insurers have fewer exit options.<sup>12</sup> Despite these limitations to price transparency, there is evidence that greater attention to prices by political leaders can affect market outcomes. Ellison and Wolfram (2006) have, for instance, found evidence that political attention to the Clinton health reform initiative led to a dramatic decrease in prescription drug price growth in the 1990s. Thus, fulfilling the promise of price transparency reforms may, as Weil et al. (2006) argue, require that the information they generate becomes embedded in the everyday routines of political actors rather than market participants alone.

Beyond the case of APCDs, this study has implications for how we understand the relationship between American federalism and health care reform. As scholars such as McDonough (1997a, b), Hackey (1998), Barrilleaux and Brace (2007), and Gray, Lowery, and Benz (2013) suggest, states experience fiscal, institutional, and political constraints that make it difficult to drive significant health policy innovation. At the same time, a variety of scholars have suggested that states often play a key role as policy laboratories, capable of experimenting with and diffusing robust health care reforms (Sparer, France, and Clinton 2011; Thompson 2012). In contrast to both of these perspectives, our pragmatist account suggests that states' ability to serve as laboratories for health care reform is highly conditional on whether or not policy entrepreneurs mine state experiences of public policy to distill lessons about "what works," and reassemble promising policy ideas, tactical repertoires, and infrastructures into policy models that have a higher likelihood of success (Berk, Galvan, and Hattam 2013; Heller, Hoffman, and Bindman 2014). All-payer claims database advocates relied on NAHDO as an available source of knowledge on ideas, tactics, and infrastructures. Yet, unlike entrepreneurs in Kingdon's (1984) multiple streams framework, these reformers did not simply use available materials in "raw" form. Rather, they redeployed raw materials—reshaping old ideas, repurposing existing tactics, and reassembling existing databases and state laws—to support a new policy goal. Had the transparency advocates not had access to these raw materials, or if they had viewed states as poor venues for reform, it is unlikely the APCDs would have emerged when and how they did.

By uncovering how institutional reconfiguration led to the emergence of APCDs, our study also suggests several future directions for research on the politics of health care reform. Rather than proposing to test the effect of institutional structures such as federalism or bicameralism on health policy

12. See also Kyle and Ridley (2007).

innovations, future research should catalogue the practices that successful (and unsuccessful) policy entrepreneurs deploy across a variety of institutional settings. In particular, further studies should explore the extent to which institutional reconfiguration helps to explain health policy change. Because policy innovation is frequently about creating something new based on existing intellectual and institutional resources, reconfiguration is a major form of agency in the policy process (Campbell 2004; Carstensen 2011). So far, little has been written about the role of reconfiguration in health care reform or in the context of federalism more broadly. The results of this study suggest that future research on health care and federalism should pay greater attention to this process of institutional change.

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**Appendix A** Documents Analyzed ( $N=33$ )

| Title   | Author(s)  | Date |
|---|--|------|
| <u>Manual/Guidebook (<math>N=6</math>)</u>  |  |      |
| All-Payer Claims Database Development Manual: Establishing a Foundation for Health Care Transparency and Informed Decision Making | Jo Porter, Denise Love, Amy Costello, Ashley Peters, Barbara Rudolph | 2015 |
| Model All-Payer Claims Database Legislation   | Lucy Hodder, Jo Porter, Ashley Peters                                | 2015 |
| Recommendations for Collecting Payer Information on Plan Benefit Design and Payments to Providers for Non-Claims based Services   | APCD Council, NHIHPP, NAHDO  | 2014 |
| Developing an APCD Request for Proposal: Guidance for States  | Denise Love, Jane Sachs  | 2013 |
| APCD Technical Build Guidance Document  | Denise Love, Alan Prysunka   | 2011 |
| Cost and Funding Considerations for a Statewide All-Payer Claims Database (APCD)  | Denise Love, Emily Sullivan  | 2011 |
| <u>Analysis of Past APCD Efforts (<math>N=4</math>)</u>   |  |      |
| New York's All-Payer Database: A New Lens for Consumer Transparency   | Patrick Miller, Ashley Peters, Jo Porter, Emily Sullivan             | 2015 |
| APCD Legislation: Review of Current Practices and Critical Elements   | Patrick Miller, Ashley Peters  | 2013 |
| Key State Health Care Databases for Improving Health Care Delivery  | Denise Love, Claudia Steiner   | 2011 |
| All-Payer Claims Databases: State Initiatives to Improve Health Care Transparency   | Denise Love, William Custer, Patrick Miller                          | 2010 |
| <u>Issue Brief or Fact Sheet (<math>N=9</math>)</u>   |  |      |
| The Basics of All-Payer Claims Databases: A Primer for States   | Jo Porter, Denise Love, Ashley Peters, Jane Sachs, and Amy Costello  | 2014 |
| A Stewardship Framework for the Use of Community Health Data  | Larry Green  | 2012 |
| Why State All-Payer Claims Databases Matter to Employers  | Patrick Miller   | 2012 |
| APCD 2.0: The Next Evolution  | Patrick Miller   | 2011 |

**Appendix A** (continued)

| Title   | Author(s)   | Date |
|---|---|------|
| Fact Sheet: APCD and Health Reform Standardization of Data Collection in All-Payer Claims Databases   | Jo Porter   | 2011 |
| All-Payer Claims Databases: An Overview for Policymakers  | Amy Costello, Mary Taylor   | 2011 |
| All-Payer Claims Database Fact Sheet  | Patrick Miller, Denise Love, Emily Sullivan, Josephine Porter, Amy Costello | 2010 |
| All-Payer Claims Database Fact Sheet  | Alan Prysunka   | 2010 |
| All-Payer Claims Databases: A Key to Healthcare Reform  | Suffolk University Law School   | 2009 |
| <u>Other (N=3)</u>  |   |      |
| History of APCD Council Harmonization Efforts   | APCD Council  | 2011 |
| Proposal for State Access to Medicare: Letter to Senator Baucus   | Denise Love   | 2009 |
| Proposal for State Access to Medicare: Letter to Senator Grassley   | Denise Love   | 2009 |
| <u>Webinars (N=11)</u>  |   |      |
| AHRQ Webinar—Improving Cost Transparency and Quality of Care: APCDs Working for You - Lessons Learned in the Release of APCD Analytics—July 8, 2015 | AHRQ  | 2015 |
| APCD Council Innovative Uses of APCDs, Part 2—May 18, 2015  | APCD Council  | 2015 |
| APCD Council APCD Development Manual Overview—March 31, 2015  | APCD Council  | 2015 |
| AHRQ Webinar—Improving Cost Transparency and Quality of Care: APCDs Working for You—March 19, 2015  | AHRQ  | 2015 |
| APCD Council Innovative Uses of APCDs, Part 1—March 9, 2015   | APCD Council  | 2015 |
| APCD Council Provider Identification Webinar—May 2, 2014  | APCD Council  | 2014 |

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**Appendix A** Documents Analyzed (*N* = 33) (*continued*)

| Title  | Author(s)                 | Date |
|--|---------------------------|------|
| APCD Council Risk Adjustment and Rate Review Webinar—April 10, 2014  | APCD Council              | 2014 |
| APCD Council Overview Webinar—November 15, 2013  | APCD Council              | 2013 |
| NAHDO All-Payer Claims Database (APCD) Overview and Applications for Public Health Presentation—March 17, 2011 | NAHDO                     | 2011 |
| CDC Surveillance Science Advisory Group Webinar—January 27, 2011   | CDC                       | 2011 |
| AHRQ-USHIK, NAHDO, and the APCD Council: New State Tool Support Webinar—December 8, 2010                       | AHRQ, NAHDO, APCD Council | 2010 |

**Appendix B** Documents Not Included in Analysis (*N*=27)

| Title  | Author(s)  | Date |
|--|--|------|
| State Models for Health Care Cost Measurement: A Policy and Operational Framework                                | Rachel Block                                     | 2015 |
| Multi-Payer Claims Database/Task 12: Summary Report and Recommended Design Option                                | Avalere Health                                   | 2010 |
| Moving Markets: Lessons from New Hampshire's Health Care Price Transparency Experiment                           | Ha Tu, Rebecca Gourevitch                        | 2014 |
| State of the States: Laying the Foundation for Health Reform   | State Coverage Initiatives                       | 2011 |
| Releasing Medicare Claims Data to Support Quality Improvement Initiatives: Legal Barriers and Opportunities      | Jane Hyatt Thorpe, Erica Pereira, Sara Rosenbaum | 2010 |
| Impact of Health Care Price Transparency on Price Variation: The New Hampshire Experience                        | Ha Tu, Johanna Lauer                             | 2009 |
| The Impact of Price Transparency on HealthCost Services in New Hampshire   | New Hampshire Insurance Department               | 2009 |
| Report on the Impact of House Bill 790 – An Act Relative to Dependent Coverage for Health Insurance 2007 Session | New Hampshire Insurance Department               | 2008 |
| 2007–2011 Vermont Health Care Cost and Utilization Report  | HCCI   | 2014 |
| CIVHC State Agency vs. Qualified Entity Comparison Document  | CIVHC  | 2014 |
| Vermont's Analytic Methodology   | HCCI   | 2014 |
| Examination of Health Care Cost Trends and Cost Drivers  | Office of Attorney General, Martha Coakley       | 2011 |
| State Data Spotlight: Maine's Health Care Claims Database  | SHADAC   | 2011 |
| A Commercial Insurance Study of Vaginal Delivery and Cesarean Section Rates at New Hampshire Hospitals           | New Hampshire Insurance Department               | 2011 |
| A Study of Ground Ambulance Transport Commercial Claims Data   | New Hampshire Insurance Department               | 2011 |

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**Appendix B** Documents Not Included in Analysis  
(*N*=27) (*continued*)

| Title   | Author(s)                                 | Date |
|---|---|------|
| The Impact of Aging on Medical Care Services Covered by Commercial Insurance in New Hampshire     | New Hampshire Insurance Department        | 2010 |
| A Study of NH vs. Out of State Medical Care Spending and Carrier Differences                      | New Hampshire Insurance Department        | 2010 |
| Report: Tri-State Variation in Health Services Utilization & Expenditures in Northern New England | Karl Finison                              | 2010 |
| Payments to Providers: An Inside Look at Carrier Discounts  | New Hampshire Insurance Department        | 2010 |
| New Hampshire Acute Care Hospital Comparison: A Commercial Insurance Relative Cost Comparison     | New Hampshire Insurance Department        | 2008 |
| Report on Patient Contributions to Medical Expenses   | New Hampshire Insurance Department        | 2008 |
| All-Payer Claims Databases: Unlocking the Potential   | Rebecca Paradis, Erin Bartolini           | 2014 |
| Why State All-Payer Claims Databases Matter to Employers  | Patrick Miller                            | 2012 |
| Standardization of Data Collection in All-Payer Claims Databases                                  | Amy Costello, Mary Taylor                 | 2011 |
| Collecting Health Data  | National Conference of State Legislatures | 2010 |
| Analysis of HHS Proposed Rules on Reinsurance, Risk Corridors, and Risk Adjustment                | Wakely Consulting Group                   | 2011 |
| Overview of the Multi-Payer Claims Database (MPCD)  | OptumInsight                              | 2011 |