Robert Wood Johnson Foundation Payment Reform Evaluation Project
Accountability through Transparency and Informed Design:
The New Hampshire Accountable Care Organization Pilot Project
NH Citizens Health Initiative

Autumn 2012 Site Report

Context
In the early 2000s, the Endowment for Health (a foundation created by the sale of a not-for-profit health insurer) initiated and supported the Pillars Project. The charge of the Pillars Project was to develop a framework that would provide coverage and access to high-quality, cost-effective care to all New Hampshire residents. The Pillars Project highlighted the fact that sustained efforts would be needed to meet these goals. Based on the project’s 2004 recommendations, the Endowment for Health and the University of New Hampshire created the New Hampshire (NH) Citizens Health Initiative (CHI), delineated its goals, structure, and focus, and recruited its leadership. Governor John Lynch supported the effort and convened the first meeting of the Citizens Health Initiative in 2005.¹ CHI’s “long-term goal is to create and sustain a public dialogue that will measurably improve the ‘systems’ that finance and provide health care in New Hampshire in order to accomplish two fundamental objectives: to assure a healthy population and to create an effective system of care.”² CHI is leading the payment reform project described in this report.

Despite previous cost control efforts, health care expenditures continue to be a concern. In 2007, New Hampshire’s health care expenditures were among the highest in the nation at more than 18 percent of the state’s gross state product.³ Similarly, in 2006 the average family health insurance premium of $12,686 was one of the highest in the U.S., compared with the national average of $11,381.⁴ Relatively low Medicaid payment rates have prompted concerns among payers regarding cost-shifting from Medicaid to private purchasers, especially in light of the relatively high level of health care spending in NH. Thus, health care costs are at the top of the payment reform agenda in the state.

In 2008, CHI’s medical home workgroup joined with four private NH health plans (Harvard Pilgrim Health Care, Cigna, Anthem Blue Cross Blue Shield of New Hampshire, and MVP Health Care) and the Center for


Medical Home Improvement to launch the New Hampshire Multi-Payer Medical Home Pilot.\textsuperscript{5} The Pilot’s purpose was to enhance care coordination and improve quality and efficiency. Project planning began in January 2008, and nine primary care sites were selected in December 2008 and recognized as patient-centered medical homes (PCMHs).\textsuperscript{6} Each pilot practice site was to receive per-member-per-month (PMPM) compensation from July 2009 through May 2011. The four participating private payers commenced PMPM payment to the pilot sites in July 2009; in June 2011, the payers and provider sites agreed to extend the pilot through December 2011.

After consulting with Maine policymakers and health care leaders and reviewing Vermont’s Blueprint for Health,\textsuperscript{7} CHI applied for and was awarded the Robert Wood Johnson Foundation grant that is supporting the current NH Accountable Care Organization (ACO) Pilot Project. In November 2011, CHI received a grant from the Jesse B. Cox Trust to hire staff to work collaboratively in Maine, New Hampshire, and Vermont to determine clinical measures to be disseminated to policymakers and purchasers. CHI is in the process of creating a cross-state matrix of measures.

An important change in context for the NH ACO Pilot occurred during 2012. The multi-stakeholder development of a common financial framework has been put on hold since one of the payers has declined to pursue a common, multi-payer financial model. As stated on the CHI website: “The landscape of payment and system reform has evolved significantly over the last 18 months and many of the participants have moved forward with individual payment reform initiatives that no longer make the common New Hampshire ACO framework feasible at this time.”\textsuperscript{8} Individual private payers are pursuing specific payment reform initiatives with provider organizations, so the New Hampshire Accountable Care Project has now shifted its emphasis to agreeing on a common measurement framework for quality, cost, and utilization via the Accountable Care Project (ACP), as the ACO initiative is now termed.

The Call for Participation in the ACP set a deadline for response of July 9, 2012, and announced three foci for the first year: measure selection and methodologies; measure implementation and report design; and a system transformation learning network. The project goal for Year Two is to identify a sustainable business model for ongoing reporting.\textsuperscript{9} The intent is to build on the early work to identify specific metrics, fashion a series of performance reports, and then to expand the “learning community.”

\textsuperscript{7} http://hcr.vermont.gov/blueprint
\textsuperscript{8} http://citizenshealthinitiative.org/accountable-care-project
Accessed December 20, 2012 (p.4 of 8)
\textsuperscript{9} http://citizenshealthinitiative.org/accountable-care-project
Accessed December 20, 2012 (p.7 of 8)
CHI leaders remarked that the set of Accountable Care Project stakeholders is now larger and involves some 15-16 systems – not just hospitals, physician-hospital organizations, or commercial carriers. With the recognition that patient flows and the relevant medical markets cut across state borders, the learning community will extend to Maine. In fact, potential collaboration being discussed with Maine and Vermont on an all-payer database could facilitate regional benchmarking.

CHI has reached out to large public employers in the state, who are searching aggressively for initiatives that will lower health care costs without “new” money. The State of NH and other public purchasers have been early participants in the employer group. NH hospitals sustained approximately $250 million of cuts in Medicaid funding, and this has energized a collective search for interventions that will conserve resources while improving population health. NH Medicaid had been scheduled to transition to a managed care program, contracting with two or three managed care organizations in April and implementing managed medical care services for Medicaid beneficiaries in July 2012; however, the three vendors have not yet developed provider networks particularly with hospitals, which are concerned about already-low Medicaid payment rates. The estimated $16 million in savings are at risk of disappearing, as most NH hospitals are declining to participate in the managed care program, and a hospital-initiated lawsuit continues over Medicaid payment cuts.

In the past decade there has been considerable consolidation of physician practices within hospital systems in NH. Those hospital systems provide a platform for ACO development in the state and, through their impact on relative bargaining power, also shape the nature of contracts and reimbursement levels between payers and providers. Four health insurers account for virtually all the commercially insured lives in NH, with the two leading health insurers covering roughly 50 percent and 25 percent of the private market, respectively. Approximately half of the covered lives are in self-insured groups, a fact that calls attention to the significant role of employers and other organized purchasers in ACO development.

To illustrate the evolving market dynamics in New Hampshire, a major insurer and a large seacoast hospital system conducted protracted negotiations from late 2010 through February 2011, in which the core issue was the price of certain hospital procedures: for example, the price of CT scans was roughly twice that of peer hospitals\(^\text{10}\). The parties settled on multi-year contracts between the health insurer, the hospital, and its affiliated physicians, which will gradually realign the hospital’s rates with its peers\(^\text{11}\). The same insurer, while negotiating actively on unit pricing, is simultaneously engaging individual providers, systems, and networks in new payment methodologies, e.g., shared savings arrangements.


coupled with upfront investments in support for care coordination and two-sided risk sharing with one large health system\textsuperscript{12}.

**Objectives**

The objective of the original New Hampshire ACO Pilot Project was to lower cost and improve quality, or more generally, to improve value. The main emphasis was on reducing cost without affecting the high quality found in New Hampshire today. New Hampshire’s numeric goal was -- and is -- to perform at the level of the top five “low-cost, high-quality states” by 2014. The specific objective underlying that overarching objective was to test new options for payment reform, clinical care, and system transformation.

The original ACO Pilot had a set of defined outcomes:\textsuperscript{13}

- Better health care cost and quality.
- More tightly coordinated care.
- Greater efficiency in health care service delivery.
- More appropriate care – the right care at the right time.
- Lower health care service unit costs.
- Increased transparency.
- Higher levels of customer satisfaction.
- A health care market whose healthcare goals are aligned across constituents.

As stated in the 2011 CHI Legislative Report,\textsuperscript{14} “The ACO Pilot is an attempt to affix accountability on local clinical leaders to find the right balance for cost, access and quality in their region’s health system.”

The ACO Pilot was intended to turn the corner in terms of payment reform. Health care leaders agreed that something has to be done; current cost trends were not sustainable. Employers were having difficulty maintaining health insurance coverage. Increased provider consolidation potentially created pressure for increases in payment, which were resisted by payers. At the same time, there was recognition that there is waste in the health care sector that can be eliminated. Thus, an underlying objective for the original ACO Pilot was to align the delivery system and payment reform to reduce cost while at least maintaining, and potentially improving, quality of care.


In 2012 CHI distributed an open call for participation (CFP) to hospitals (small and large), independent provider organizations, and integrated delivery systems\(^{15}\) to join “a group actively working to develop common measures and reports of cost, utilization and quality and participate in a learning community focused on sharing quality and efficiency improvements and system transformation best practices and lessons learned amongst participants.” In the CFP the Accountable Care Project updated its instrumental objectives\(^{16}\):

- “Create and implement quality, cost and utilization reports across all payers to support health system transformation efforts in New Hampshire.
- Provide systems undergoing transformation a capacity to compare performance on measures of quality, utilization and cost across systems and regions.
- Maintain an environment of open sharing and discussion of results amongst project participants.
- Create and sustain a payment reform/clinical/quality improvement learning network.
- Define requirements and business model for ongoing operations of an independent data entity for reporting and system/regional benchmarking with the potential for expanded, aggregated data sets.”

The study team’s perception is that the original ACO Pilot objectives remain, even as they have been updated in the form of the Accountable Care Project (ACP). While a common (multi-payer) financial framework is not being actively pursued at this time, the ACP’s objectives are consistent with those of the original ACO Pilot.

**Stakeholder Objectives**

Provider organizations are pursuing their own payment reform objectives in collaboration with specific payers, including Anthem Blue Cross, CIGNA, Aetna, Harvard Pilgrim Health Care, and Medicare. One prominent community health center envisions value-based payment as a means of maintaining parity in physician compensation, attracting a robust primary care workforce, and funding improved infrastructure for accountable care. In turn, that infrastructure could enable data analysis to support clinical action plans, physician decision support, and care management. All-payer claims data were also seen as an objective source of information that could enhance the provider’s negotiating position with payers. One health system medical leader saw the common measurement framework as a way to improve medical practice and enhance patient outcomes through benchmarking and eliminating

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unwarranted variation in care patterns (e.g., eliminating the 40 percent of CT scans or MRIs that are duplicates).

Private payers have expressed interest in employing payment reform to develop consistent performance measures, while maintaining competition and differentiation in negotiating distinct payment arrangements with particular provider organizations. One payer alluded to the Triple Aim (improving the health of populations, lower costs, and better patient experience\textsuperscript{17}) as the objective of their efforts, with an eye toward identifying providers at the higher tiers of performance and driving a better patient experience.

**Approach**

*Original project*

Building on the momentum of the PCMH Pilot, in August 2010 CHI initiated a five-year Accountable Care Organization (ACO) project; the project’s aim is to match the top five “low-cost, high-quality states” in cost and quality performance measures. ACOs take principal responsibility for a population’s health care costs and outcomes; the ACO project in NH is in transition, and final relationships have not yet been determined. This ACO Project originally was driven primarily by four commercial insurance carriers and five provider organizations statewide; but, as the emphasis has switched to building a common measurement system, the project has now broadened its membership substantially\textsuperscript{18}. The metrics comprise approximately 30 claims-based indicators; the measure set incorporates 10 outcomes, derived from electronic health and medical records data (EHR/EMR)\textsuperscript{19}. Initial sample reports have displayed measures by hospital referral region (HRR), but Year One (2013) project outputs also will include system-to-system benchmarks and reporting at the system, organization, ACO, and practice levels\textsuperscript{20}.

The ACO Project has been bolstered by the foundation of long-term relationships between CHI and several organizations including the NH Medical Society, the NH Hospital Association, four private commercial payers (Anthem Blue Cross Blue Shield of NH, Cigna, Harvard Pilgrim Health Care, and MVP Health Care), the NH Department of Health and Human Services, and the NH Department of Insurance. The participating delivery systems care for more than 400,000 individuals out of a population of 1.3

\textsuperscript{17} This Triple Aim has been expressed as “… improving the experience of care, improving the health of populations, and reducing per capita costs of health care”, in: Berwick DM, Nolan TW, Whittington J. The Triple Aim: Care, Health, And Cost. Health Affairs 2008 (May); 27(3): 759-769.

\textsuperscript{18} See for example, the list of 25 participating organizations in the project’s most recent Advisory Board meeting report: which lists the for major insurers, community health centers, physician hospital organizations, the NH Department of Health and Human Services, Medicaid, the NH purchasers group, hospitals, health systems, Department of Insurance, and services organizations: [http://citizenshealthinitiative.org/sites/citizenshealthinitiative.org/files/media/20121119_ACproject_AdvisoryBoard.pdf](http://citizenshealthinitiative.org/sites/citizenshealthinitiative.org/files/media/20121119_ACproject_AdvisoryBoard.pdf)


\textsuperscript{19} Ibid. pp 23-35.

\textsuperscript{20} Ibid, pp21-22.
million\textsuperscript{21} and include 700 of the state’s 3,900 practicing clinicians. The selected pilot health care systems underwent a competitive application process.\textsuperscript{22}

The continuing core of the ACO Project strategy is data design, measurement, and analysis. The Project leverages cross-carrier data available through the NH all-payer claims database (APCD), known as the NH Comprehensive Healthcare Information System, or NHCHIS. Participation in NHCHIS is legislatively mandated for all major commercial health insurance carriers in the state. The NHCHIS data will be useful in developing global budgets, understanding patterns of care, and creating benchmarks for utilization and quality. The dataset allows development of metrics and benchmarks for each ACO comprised of “core measures,” “tracking measures,” and specific utilization rates. The Clinical Subcommittee of the NH ACO Pilot was responsible for development of these metrics.\textsuperscript{23}

Preliminary cross-provider system comparisons of the claims-based measures were vetted in the project’s Clinical Subcommittee in 2011 for five developing ACO pilot systems. Additional patient outcome and experience metrics, based on electronic medical records and surveys, have been developed as part of the current measurement set. As the original ACO Pilot project has evolved, the ACP has concentrated on measurement and reporting, rather than explicit development of ACOs and common multi-insurer payment models.

The initial core component of the ACO Pilot strategy was the development of a financial framework to support the pilot accountable care organizations. This framework was the product of a working group of carrier, provider system, and state government representatives, collaborating with CHI staff and the consulting group. It embodied five elements:

1. A “modified retrospective attribution” methodology that blends both prospective and retrospective attribution (e.g., validating prospective attribution against retrospectively observed provider utilization patterns), which attributes patients to provider systems based on the plurality of evaluation and management claim counts.
2. An outlier threshold of $75,000 for medical and pharmacy claim costs, which mitigates large swings in cost trends from year to year.
3. A cohort budget target, comparing ACO cost growth to that of the non-ACO population statewide during the contract period.
4. A two-sided risk- and gain-sharing arrangement with an ACO potential share of up to 60 percent depending on quality (specifically, the provider organization’s share of any cost savings would rise with the organization’s quality score).

\textsuperscript{22} \texttt{http://www.citizenshealthinitiative.org/health-payment-reform}. Accessed November 12, 2011.
(5) A quality performance score, quality performance threshold, and the impact of quality performance on potential shared savings (or gain-sharing) amounts.

The size of the attributed total populations (including self-insured groups) for the ACO pilot systems was relatively small, ranging from approximately 5,000 to 24,000 unique individuals (including covered lives from self-insured groups) across the five participating systems. Two of the five pilot systems had fewer than the recommended minimum of 7,500 covered lives for purposes of statistical credibility. While the numbers for any given provider system–carrier combination were often too small to be statistically credible, all participating ACO pilot systems had counts approaching credibility when all carriers were combined. For that reason, the original working group strongly recommended that contracts between individual provider systems and carriers be as similar as possible in order to pool risk and thus reduce overall risk for any one ACO or provider system.

The working group reviewed several options to increase the effective sample size of covered lives, and therefore to enhance the statistical credibility of performance comparisons, particularly those tied to risk-sharing:

- Where appropriate (e.g., in an HMO or equivalent capitation arrangement with member-chosen primary care provider, or PCP), use PCP assignment rather than attribution to link member to provider system.
- Include self-insured lives and Medicaid recipients.

As part of this effort, potential risk pooling and contracting arrangements initially were developed in 2011 by the working group. Several risk pooling and contracting strategies were considered: use multi-year, rather than single-year, targets as the basis for performance measurement and risk-sharing determination; pool carriers across site; and pool providers across carrier. The group considered the pros and cons of each strategy, and its deliberations included comparisons of the potential impacts, fairness, and administrative burden of each approach. The working group observed that a common approach across providers and carriers would simplify contract administration for both providers and carriers.

The potential savings pool would be defined by the pilot system’s cost performance, based on allowed payments, relative to the pilot’s budget target. That target would be the growth in allowed payments for a control group (the cohort population comprised of covered lives in provider organizations not participating in the pilot). Relative to the control cohort, a corridor of one percent deficit or savings, respectively, would trigger first-dollar sharing of deficits or savings. (That is, if and only if the one

percent corridor was exceeded, would total deficits or savings -- including those below the one percent threshold -- be shared between provider organization and payer.)

Updated Project
The ACP action steps in 2012 included the following:

- Finalizing measure definition.
- Setting targets for each measure, which requires definition of the method for target-setting, review of available national benchmarks, generating and reviewing NH state benchmarks, and generating and reviewing NH ACO pilot site benchmarks against NH state benchmarks.
- Developing methods and metrics for risk-adjustment of measures (which currently entails removal of outliers).

The ACP is also incorporating the use of episode-of-care measures for chronic disease management, supply-sensitive services, and preference-sensitive services.

Anticipated project outputs in the first year of ACP are the following:

- Standardized set of cost, utilization, and quality measures.
- Annual trending starting in 2009.
- Regional benchmarks and cross-system comparisons.
- Hierarchical reporting by region (Public Health Region, Hospital Referral Region); system, provider organization, ACO; and practice(s).

Progress and Results
Medical Home Pilot and ACO Development Results. The New Hampshire Multi-Stakeholder Medical Home Pilot, based on 15 months of data on medical claims (not including pharmacy) offers preliminary results of the first CHI-convened payment reform initiative. In that pilot, the average care management payment per member per month was $4 (the Anthem payments were $2, $4, or $6 for practices with NCQA Level 1, 2, or 3 recognition, respectively). Standard quality data, aligned with each plan’s existing quality programs, were collected for diabetes, congestive heart failure, and cardiovascular disease. Anthem rewarded high-performing physicians by increasing payments for subsequent years. Representatives of participating practices met monthly to share their experiences with office process flow and their challenges and successes. All-payer PMPM cost in that pilot (not yet adjusted for patient health risk) declined for the medical home participants, while increasing for the control group. Specifically, for Anthem patients, costs for medical home patients increased five percent over baseline, while PMPM costs for control group patients increased by 12 percent. Quality scores did not change. Each insurer set its own payment amounts and paid physicians twice a year, based on the number of
patients attributed to that physician. Representatives of participating practices met monthly to share their experiences with office process flow and their challenges and successes\textsuperscript{26}.

In a New Hampshire application of the CIGNA Collaborative Accountable Care model, the Dartmouth-Hitchcock medical group using the embedded care coordinator had a 10 percent higher overall “gap closure\textsuperscript{27}” rate over six months and 16 percent higher gap closure rate for patients with hypertension (e.g., reductions in failure to receive annual blood tests for kidney function, or failure to take medications with the prescribed frequency), as compared to a matched control provider group\textsuperscript{28}.

One medical leader recounted the experience of his medical center with preventive activities and the integration of public health and medical care. Specifically, emphasis on vaccination for influenza and pneumonia has reduced admissions for respiratory illness. The use of a community registry has allowed broad capture of health data and is very powerful. The medical center will focus on congestive heart failure and hypertension, and aims to enhance engagement with home health aides and the larger community on blood pressure control, dietary management, and intervention with patients living with chronic obstructive pulmonary disease. This leader remarked on the observed dramatic reductions in utilization, admissions, and costs – largely due to better data capture. In fact, the region has the lowest costs per patient within the Pioneer ACO and in one of the major NH insurer’s book of business.

\textit{Payment Reform Examples}. Several discrete payment models are being negotiated between specific private and public payers and selected provider organizations\textsuperscript{29}. In October 2010 Anthem Blue Cross and Blue Shield of New Hampshire initiated a two-sided (upside potential and downside risk) risk arrangement with roughly one-fourth of New Hampshire physicians through its ACO payment model with Dartmouth-Hitchcock, and recently extended it through 2014. Similar arrangements are being explored with other large systems in the state. Anthem’s Patient-Centered Primary Care Program (PC2) offers physicians upfront PMPM payments for care planning regarding patients with multiple and complex conditions. Physicians receive patient-specific reports, and, in return for committing to practice

\begin{itemize}
  \item Gap closure refers to reduction in the difference between a quality target and actual results.
  \item Collaborative Accountable Care: CIGNA’s Approach to Accountable Care Organizations: white paper. April 2011 \url{http://newsroom.cigna.com/images/9022/media_gallery/knowledge_center/CollaborativeCare_WhitePaper_2011.pdf}
\end{itemize}

transformation, care management, and maintaining quality, clinicians have the opportunity for shared savings.

Dartmouth-Hitchcock is also participating in the Pioneer ACO model of the Center for Medicare and Medicaid Services (CMS), which entails shared upside and downside risk in the first two years, followed by global capitation in Year Three. Local divisions of the Dartmouth-Hitchcock system make their own decisions regarding participation in the ACO model, which requires that 50 percent of the provider organization’s Medicare patients be in the ACO. Dartmouth-Hitchcock also has ACO arrangements with Anthem, CIGNA, and Harvard Pilgrim Health Care.

Since 2010, another leading carrier, Harvard Pilgrim, has offered tiered network products to its insureds; one of the products (ChoiceNet) bases the insured person’s copayment on the cost/quality tier of the physician or hospital delivering care to that person. On the provider side, the carrier has introduced a primary care center of excellence program, a specialist medical home pilot, and two payment pilots. One payment pilot centers on bundled case rates to provider systems for all services related to a specific procedure (e.g., total joint replacement or coronary artery bypass graft surgery), including a warranty for avoidable complications. A second payment pilot involves complex condition management (e.g., for persons with congestive heart failure or cancer), tailored to reducing unnecessary use of certain health services. In total (and including other shared savings and capitation programs) these incentive arrangements cover slightly more than one-quarter of Harvard Pilgrim’s provider network in New Hampshire.

Another major payer, CIGNA, is fashioning payment arrangements using a variant of ACO model, termed Collaborative Accountable Care in New Hampshire and other states. The general approach is to provide to the provider organization actionable clinical information (gaps in evidence-based care, medical cost, and ER use reports); clinical health coaching to patients that extend the provider’s capacity (e.g., through an embedded care coordinator); and expert consultation to support implementation and management. That support is then reinforced by an upfront PMPM payment and potential shared savings between the provider and health plan. At present, for CIGNA the shared savings approach predominates in New Hampshire – with movement toward shared losses for groups capable of accepting and managing downside risk. CIGNA also is assessing bundled payment models, but these are more difficult to implement in a predominantly fee for service (FFS) environment. The carrier also has a

31 Ibid.
standard shared savings arrangement with a five hospital NH provider network and a shared savings arrangement (carving out inpatient services) with another large independent practice.

The Central NH Partnership is another organizational example of payment innovation. Anchored by MidState Health Center, this collaboration includes a community hospital, home health and hospice organization, area nursing agency, and community mental health center. The North Country ACO is a program developed through that partnership. It was selected by CMS as an Advanced Payment Model ACO, and its CMS grant began in April 2012. The Advance Payment Model is designed for organizations in need of additional access to capital for care coordination investments. North Country chose the one-sided upfront payment model with no downside risk. Payments began at the start of the first performance year and end at the settlement period, June 2014. If, after 27 months, there were no shared savings and if the ACO elected to continue in the Advanced Payment Model, the ACO would pay back CMS the amount of the advance payments. Shared savings are calculated by comparing the ACO’s spending for attributed patients in the pre-program (baseline) year to spending in the program year. To earn shared savings, depending on the particular arrangement negotiated with CMS, the ACO must reduce spending in the program year by 2.0 to 3.9 percent relative to baseline.

Logic Model
The New Hampshire ACO Pilot Project crafted an initial logic model. The first step was definition of the project goal: “To test new payment reform, clinical, and system transformation options to support New Hampshire’s goal to achieve the level of quality and cost performance of the top five ‘low-cost, high-quality states’ by 2014.” The model proceeds to spell out the objectives, strategic activities, changes and process improvements, initial outcomes, intermediate outcomes, and long-term outcomes that serve the overall project goal.

The original logic model, shown in full at the end of the report, had two components: to support implementation and evaluation of New Hampshire ACO Pilot sites, and to implement an ACO Learning Collaborative in New Hampshire and Maine. CHI representatives stressed the importance of proceeding sequentially through the steps in the logic model and also building in an 18-month planning period to underpin a 3- to 5-year program of designing and implementing the ACO Pilot. We present the original logic model for the ACO Pilot in order to provide background for the current Accountable Care Project.

34 http://www.acponline.org/running_practice/delivery_and_payment_models/aco/aco_detailed_sum.pdf
which reflects the evolution of the overarching payment reform efforts of CHI and its stakeholders during the 2011-2012 period.

The first section of the logic model contained six objectives: (1) assess necessary system changes to support transformation; (2) develop a financial framework between pilot sites and commercial carriers; (3) identify metrics for evaluation; (4) collect financial and clinical data; (5) gain buy-in from employers; and (6) engage consumers. Activities to attain these objectives included the following: performing data analysis and actuarial scenario modeling; defining metrics and benchmarks; developing business and data requirements for data and reporting needs; and creating engagement strategies for employers and consumers. The expected long-term outcomes were improved health care quality and cost-efficiency for NH residents; better care coordination by health systems; public dissemination of metrics; increased employer support for payment reform models; and enhanced patient experiences.

The objective of the second section of the original logic model was to provide assistance, tools, and a shared learning environment to pilot site participants. That objective was to be realized by convening and supporting the NH ACO Pilot Work Group and its Clinical Subcommittee, participating in the Maine Learning Collaborative, documenting lessons learned for an ACO Tool Kit, and holding a Maine/NH Learning Conference. These activities aimed to produce public tools and greater knowledge around ACO development and eventually lead to improvement in quality, utilization, and care coordination by health systems. While not currently implementing the common financial framework across multiple payers, the original ACO Pilot Work Group has continued the activities delineated above. For example, the 2012 Maine and New Hampshire Healthcare Transformation Learning Symposium reinforced joint learning on ACO development and noted conceptual agreement on a potential ACO model across pilot systems, based on primary care and a common conceptual financial framework36.

Facilitators and Barriers
The facilitators and barriers for New Hampshire’s value-based payment reform initiative are presented in no particular order of importance and integrate our study team’s observations of the original ACO Pilot and the evolution of the current Accountable Care Project.

Facilitators
New Hampshire possesses certain salutary features for payment reform. The strong civic culture and its role in enhancing shared understanding among stakeholders in the state is a very important facilitator of

common measurement and payment reform initiatives. The small size of the state makes working together somewhat easier and, at times, a necessity. There is an emerging consensus among providers and payers that action needs to be taken to control health care spending. Leadership from CHI, the Endowment for Health, and the Governor has lent continuity to the ACO Pilot Project. The expertise and network of relationships between CHI leadership and many stakeholders have been important human capital and goodwill assets for the ACO Pilot and the subsequent Accountable Care Project. There has been strong business and clinical presence at the table.

With relatively favorable quality indicators in NH and a generally healthy population, there are fewer “moving parts” to consider in overall health care system reform, which allows for greater focus on cost control.

The consensual development of core measures and tracking measures of clinical quality, prevention, and utilization by the Clinical Subcommittee of the NH ACO Pilot has been a critical step in securing physician buy-in for the project. As one leader stated, “[T]he one thing they said everyone believes is the clinical measures work. These organizations have 25-30 clinical measures that they know will be doing a good job and moving in the right direction. That’s a huge takeaway.” A major facilitator is having physicians who are willing to state publicly that payment reform is the right thing to do. A key is convincing providers that payment reform is a vehicle for supporting better care.

The structure and statute-supported maintenance of the state’s all-payer claims database, officially named the New Hampshire Comprehensive Health Care Information System (NHCIS), is a major resource for performance measurement and support of multi-stakeholder initiatives in payment and delivery system reform. Collaborators in the ACO Pilot Project have demonstrated its successful use in a number of applications without raising proprietary concerns. NHCIS is a significant facilitator: it levels the informational playing field for providers and payers, and it reduces the resource burden on providers, giving them a sense of ownership and control in the Pilot Project. Uniform protocols for data elements, collection, and release facilitate both trust in, and utility of, the NHCIS. Mechanisms at the University of New Hampshire (UNH) Center for Health Analytics play a crucial role in assuring data integrity and conducting analyses. Under UNH auspices as an academic institution the CHI initiatives are eligible for certain discounts and tools (e.g., grouping algorithms). CHI’s relationships with the Center for Health Analytics and NH Health and Human Services, as well as the State’s ties with the data aggregation contractor, assist in understanding the nature and appropriate uses of the data. CHI’s role as a trusted partner promotes the credibility of data, and all data-related processes are designed in an attempt to be transparent, trustworthy, and geared to facilitating effective use of the information.

Another important positive factor for ACO implementation is the groundwork established by the PCMH Pilot. That project has access to the Medical Home Web Reporting Site, developed by the Center for Health Analytics at the University of New Hampshire, for the submission of electronic medical record (EMR) data and reporting on 32 clinical quality measures. The website supports both the nine pilot sites in NH and 26 pilot sites in Maine. Reports in the system deliver benchmarking information across the New Hampshire and Maine pilot sites. Several 2011 interviewees remarked that the underlying work and learning from the PCMH Pilot is a facilitator of the original NH ACO Pilot, while also illustrating the benefits of collaboration with similar Maine projects.

CHI has continued to be a strong facilitating mechanism throughout 2012 by keeping parties at the table, sharing information carefully and comparatively, creating subcommittees to maintain broad and continued stakeholder participation, and tapping the Advisory Board for guidance, as appropriate. Sharing comparative data across different ACOs – “unblinded” by mutual agreement for four ACOs – has been a strong trigger for stakeholders to stay engaged and improve quality and cost performance. CHI is “driving the bus” to press Medicare and Medicaid to make necessary changes – now that the State has “set the table” for discussions.

The Affordable Care Act has stimulated payment and delivery system reform significantly – for example, through the Pioneer ACO program and its payment incentive arrangements for one-sided (shared savings) and two-sided risk arrangements and the Advanced Payment ACO models. The Center for Medicare and Medicaid Innovation (CMMI) has been an important catalyst.

Barriers
One important barrier to effective implementation of the ACO model in NH has been some degree of reluctance to adopt capitation or provider risk-bearing payment arrangements. Mixed experience in New Hampshire with capitated contracting, some of it in the 1990s, has contributed to the appeal of fee-for-service. The “tyranny of immediacy” also gets in the way of payment reform. This phenomenon is reinforced by the current payment structure, which rewards volume. Historically and culturally, providers are most familiar and comfortable with FFS payments, and patients are used to having the choice of provider at point of service. Existing transactional systems of payers frequently are unable to tie capitation to a member. Existing health plan contracts typically do not require selection of a PCP, which also increases the difficulty in paying on a capitated basis. As one health plan leader observed:

“Everyone is searching for the next revenue stream and can’t stay on focused on getting

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rid of fragmented care. No one enjoys that. Our system is broken. The barrier is people not being able to pick their heads up enough to actually convene and do something that’s meaningful.”

Inertia, or an implicit bias toward the status quo, significantly impedes movement toward payment reform. This bias is felt acutely by provider organizations already investing substantial resources in primary care, but receiving insufficient reimbursement to cover those costs, and health insurers concerned that financial support for primary care and prevention will not yield favorable rates of return.

Another challenge is the “tragedy of the commons”, in which organizations pursuing their own self-interest tend to forego opportunities to collaborate. In a predominantly FFS environment, without incentives that encourage cooperation (for example, health plan payments to support care coordination and shrinkage of excess hospital capacity) and a common performance measurement framework, individual providers and provider organizations are likely to perceive their efforts to enhance coordination and reduce inefficiencies as costly to them, while conferring many of the benefits of their individual initiatives on their competitors.

Lack of significant competition in the NH health insurance market (two carriers account for approximately 75 percent of covered lives in the commercial market) limits payment innovation with providers. Negotiating adequate levels of payment for primary care is a major challenge for smaller practices that lack bargaining leverage with private payers. In some area, e.g., the North Country, smaller practices (such as rural health clinics) are banding together to exert more effective leverage in bargaining with third party payers.

Payment arrangements for many self-insured employers are administered on a platform that does not align with capitation. Those employers generally feel more comfortable with payment based on actual claims, rather than assignment of a capitated amount to an employee.

Particularly in the predominantly rural areas of the state, where half the hospitals are critical access and the full spectrum of health services is not locally available, crafting effective contractual arrangements between PCPs, specialists, and hospitals can be difficult. The Medicaid population is growing in those rural areas, which -- given Medicaid cuts and low rates of reimbursement -- strains the resource base to support ACOs. For the rural areas of central NH and North Country, there are additional constraints, in that there are multiple distinct provider organizations trying to form a virtual ACO without joint leadership, although the recent formation of the North Country ACO and its participation in the CMS Advanced Payment ACO model are promising examples of joint leadership and positive payment innovation.
The substantial extent of hospital control in health systems represents another potential barrier to value-based payment reform. There are few large medical groups practicing independently of hospitals in the state. Generally, the medical society is also closely aligned with the policy positions of the NH Hospital Association.39

Additionally, the community-level social and human services that keep people from having to access expensive medical care are generally small, under-resourced organizations. These social and human services could play an important role in preventing readmissions and facilitating appropriate early discharge from hospital inpatient care, thus saving money for the ACO. Another challenge in the rural and less populated regions is the small number of covered lives, which limits the benefits of risk pooling by increasing the likelihood that a few very high cost cases could significantly skew average payments.

One interviewee observed that the health care reform environment is in flux because of the activity at the state and federal level. Consequently, leaders are trying several different initiatives as they attempt to predict what will stick, which dilutes the efforts on any given project. At the practice level, providers are often unaware of whether a given patient is part of a pilot project. Thus, as one interviewee noted, instead of treating medical home patients and ACO patients differently, providers operate in a kind of mixed equilibrium and do not achieve maximum value for either the medical home or ACO pilot; therefore the provider organization might experience the downside of these attempted innovations.

**Evaluation and Sustainability**

One prominent leader in the NH payment reform effort remarked that public funding and philanthropy are likely to be the crucial supports for financial sustainability:

“We will always need money for sustainability, not just initiation – [if you have] no hoes, no workers, the garden will go to seed. In these times, if you really want innovation to move forward, you must have investments. Somehow philanthropy and creative forces in government that understand critical infrastructure will have to think about it.”

Another interviewee remarked that in recent times the state legislature has regularly expressed interest in payment reform and cost containment, but has not appropriated funds to support such initiatives.

An interviewee from a provider organization opined that, in the long run, sustainability will be based on cost and quality outcomes. Momentum depends on demonstrating that costs can be reduced

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39 One inference from interviewees is that reductions in hospital utilization create two problems for hospital leaders seeking to redesign care delivery: (1) the direct loss of revenue; (2) the indirect consequence that reduced hospital revenue implies less surplus to invest in care innovation.
substantially without diminution in quality: “Data and credible, valid information become a platform for honest negotiations.”

Local evaluation of the New Hampshire Multi-Payer Medical Home Pilot will be conducted by Professor Jody Gittell and colleagues at the Heller School of Brandeis University. The conceptual framework for the evaluation is based on relational coordination as a vehicle for healthcare transformation⁴⁰.

**Lessons Learned**

New Hampshire champions of this common measurement and payment reform initiative stressed the need to be nimble. As one person put it:

> “Recognize you’re swimming in a rapidly-moving stream. The environment is shifting. It’s very difficult when you’re used to being able to say if the objective was or was not met – it’s very important to know what you learned, **whether or not** you succeeded. What we’re doing will ultimately be much more valuable than our original objectives. What did we learn from what we didn’t achieve?”

One executive commented on the benefit of “pulling back into the non-competitive space” (seeking common ground for progress on joint efforts) when private interests began to hinder progress. As a corollary of the need for flexibility and agility, NH leaders cited the value of funding partners such as RWJF and the Cox Foundation that possessed those attributes.

One health plan executive commented that early learning in payment reform was often derived from fully insured HMO populations, which in New Hampshire are dwindling. Accordingly, the principal challenge in New Hampshire is concentrated on the Medicare and Medicaid populations and self-insured groups. These populations add the task of attributing patient to provider and organization to the already complex problem of managing actuarial and performance risk. The self-funded groups, a new player in the mix, are starting to ask for access to their at-risk contracts in their requests for bids.

The insurance carriers are continuing to learn from dialogue with provider organizations. The payer side brings substantial specialized resources in the form of claims information and case management, while the providers offer clinical expertise and the unique information embedded in electronic health records. The drive and continuing challenge is to continue to bridge gaps between providers and payers to

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develop more accurate patient information and, in particular, to better coordinate provider and insurer outreach to patients. Leaders of provider organizations noted that carrier control of claims data historically hindered payment reform efforts, and the common measurement framework and use of all-payer claims and EMR/EHR data should allow more productive negotiations around actual cost reductions and agreement on each side’s share of savings.

Access to Medicare claims data (in the context of shared savings and advanced payment models) has been helpful to providers seeking a view of the patient’s total care experience over time. Another interviewee remarked that Medicare has been a major driver of reform in New Hampshire, e.g., through the Pioneer ACO.

Given that one private carrier’s NH market share exceeds 50 percent, it is important for the viability of the emerging ACOs in the state that this carrier participate in actual ACO contracts. Such ACO and risk contracts are unfolding in different regions of the state, even though development of a common financial framework per se is currently on hold. Medicare’s continuing role in advanced payment, shared savings, and ACO contracts significantly advances the prospects for ACO development and sustainability in NH. Medicare participation is likely to be especially beneficial for critical access providers in the rural and less populated areas. Regardless of any particular payer’s ultimate decision with respect to ACO participation, however, there is general agreement that multi-payer involvement is crucial in order to achieve a credible sample size and to sustain this effort. More generally, in a small state like New Hampshire, long-term commitment from multiple providers and payers -- characterized by patience joined with a sense of urgency -- will be crucial for success.

A major challenge to ACO market penetration in NH is the distribution of the organizational revenues (the O in ACO) to the constituent providers within the ACO: principally, the specialists, PCPs, and hospitals. To the extent that hospitals and specialists are the largest cost centers in the ACO, the tendency will be to seek savings for the ACO as a whole through reductions in total payment to those providers by optimizing primary care, prevention, and care coordination. Unless the ACO can design internal compensation mechanisms that simultaneously satisfy the hospitals, specialists, PCPs, and, importantly, the patients and health plans they serve, resource conflicts could stymie ACO development. This conundrum is not unique to New Hampshire, but the market power of hospitals and specialists in the state could exacerbate the difficulties in reaching agreement over distribution of resources within the ACO.

Experience to date also suggests that the use of a neutral, trusted third party with the capacity to aggregate and analyze clinical and claims data across multiple carriers and provider organizations has been extremely useful in advancing ACO pilot development. To that end, the presence of an all-payer claims database (NHCHIS) linkable to EMR-based clinical data will be an important resource as the pilot
ACOs move from the design and development phase to actual implementation. Working with a third party with strong analytic and actuarial capacity has also shown provider organizations that they could improve their financial position by assuming downside risk as well as upside potential. The use of risk adjustment tools, drawing data from EMR and all-payer claims database records, can assist providers and carriers in ensuring fair and unbiased risk selection in contract arrangements.

Interviewees observed that physician leadership is fundamental for sustained ACO development, as demonstrated in the role of the Clinical Subcommittee in the NH ACO Pilot. Such physician-led endeavors establish relevance and acceptance of a common agenda among other clinicians. The process of displaying the data, explaining how it was collected, recognizing its limitations, and setting realistic targets is enhanced when respected clinicians are guiding the activity. These steps are critical for attaining physician buy-in.

An interesting dynamic has evolved in the course of bringing multiple providers and carriers to a common endeavor. There was initially considerable skepticism among providers in New Hampshire. One interviewee remarked that as the ACO Pilot has advanced, some among the clinical leadership have moved beyond the business arguments and decided to proceed. The result has been an unprecedented level of collaboration and conversation that has allowed compromise. Shared information and cooperation on joint projects with Maine (e.g., on medical home and ACO pilot initiatives) have also accelerated these reform efforts, in part by allowing prospective innovators in both states to avoid reinventing the wheel. One clinic leader elaborated on this point:

“It’s not what you know, it’s who you know...Relationships with people [are] important... because it’s hard to negotiate unless you have relationships and trust...you have to be able to trust people in the room with you. I think this project promoted that. We had a diverse group of people, payers, hospitals, people like us, other stakeholders, the State – everybody sitting in the room and after just a few meetings you could see barriers come down. Everybody knew it was safe place to talk and get to meat of the matter because relationships had developed. To me, that's huge. It is about trust and transparency and developing relationships.”
Table 1: Accountability through Transparency and Informed Design
NH Accountable Care Organization (ACO) Pilot Project
Logic Model

**Situation:** New Hampshire, like the rest of the Nation, has struggled to identify an effective solution to the health care crisis. Citizens are faced with increasing costs, uncertain quality of care, and limited healthcare access for some. Health spending in New Hampshire amounts to more than 18% of GSP and is expected to reach 22% by 2017.\(^{41}\) New Hampshire also boasts an average family health insurance premium that is one of the highest in the United States (11.5% higher than 2006 national average in 2006).\(^{42}\)

**Project Goal:** To test new payment reform, clinical and system transformation options to support New Hampshire’s goal to achieve the level of quality and cost performance of the top five “low cost, high quality” states by 2014.\(^{43}\)

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<th>Objectives</th>
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<td>Support Implementation and Evaluation of NH ACO Pilot Sites. Move forward significant payment reform initiatives in New Hampshire.</td>
<td>• Perform data analysis and actuarial scenario modeling to support the identification of process and organizational changes required for system transformation • Identify areas with potential short term (1-2 year) impact for shared collaboration to improve quality, care coordination and lower utilization pilot sites</td>
<td>• 2-3 areas are identified for collaboration across pilot sites • Pilot sites implement changes to improve quality, cost, care coordination, patient satisfaction</td>
<td>• Pilot sites develop plans to implement changes to support successful transformation</td>
<td>• Health systems implements changes that improve quality, efficiency, care coordination and patient satisfaction</td>
<td>Health care quality and cost efficiency improves for NH population</td>
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<td>Facilitate the development of a common financial framework between pilot sites and commercial carriers to support individual contract negotiations</td>
<td>• Develop common financial framework to be used as basis for contract negotiations between health systems and commercial carriers, including calculation of the global budget and quality performance metrics &lt;br&gt; • Perform significant data analysis and actuarial scenario modeling to facilitate the mutual understanding of the financial arrangement and the potential impact for pilot sites. &lt;br&gt; • Implement new contracts &lt;br&gt; • Monitor financial progress</td>
<td>• New incentive structures rewards healthcare delivery system transformation</td>
<td>• Pilot systems are rewarded for managing the quality of care and cost of their population without any downside risk &lt;br&gt; • Pilot systems effectively manages overall healthcare costs within global budget &lt;br&gt; • Pilot systems receive Shared savings and are able to support additional capabilities to improve quality and lower costs</td>
<td>Health care quality and cost efficiency improves for NH population</td>
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<td>Identify metrics and benchmarks for evaluation across pilot sites.</td>
<td>• Perform data analysis to support the selection of impactful metrics. &lt;br&gt; • Define quality, utilization and care coordination metrics and benchmarks across ACO pilot sites for inclusion in the common financial framework &lt;br&gt; • Collaborate with Maine ACO group to align metrics where appropriate &lt;br&gt; • Define any additional metrics for evaluating pilot success outside the common financial framework &lt;br&gt; • Post all metrics on NH CHI project website</td>
<td>• Common quality, utilization and care coordination measurement across pilot systems &lt;br&gt; • Alignment of core pilot measures with Maine ACO group</td>
<td>• Increased awareness of the cost and quality of care being provided within pilot systems &lt;br&gt; • Pilot systems develop and implement strategies for improvement of at least 2 metrics &lt;br&gt; • Make all metrics available on NH CHI project website</td>
<td>• Pilot systems meet quality, utilization and care coordination targets and receive “performance pool” shared savings &lt;br&gt; • Ability to compare pilot systems in Maine and NH to share successes and barriers</td>
<td>Continued improvement of quality, utilization and care coordination efforts by health systems &lt;br&gt; Public dissemination of metrics</td>
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| Define and support implementation of financial and clinical data collection and reporting needs for successful pilot operations | • Develop business and data requirements for short and mid-term data and reporting needs  
• Analyze validity of NH Comprehensive Health Information System (CHIS), an all payer database, for use in financial scenario modeling and ongoing operational and performance reporting for the pilot  
• Perform data gap analysis to identify additional data sources required beyond the NH CHIS  
• Research infrastructure and reporting solutions that address requirements  
• Identify short and mid-term funding streams  
• Create periodic reports to track identified metrics and continually identify areas for improvement | • Ongoing, reports are produced and disseminated to pilot systems and other pilot stakeholders | • Funding and infrastructure are identified and implemented  
• Reports are designed and created for tracking and reconciliation by pilot systems and payers | • Focused, actionable information supports system tracking and drives accountability to improve the systems | Clinical and administrative outcomes are improved |
| Gain buy-in and engage employers in pilot efforts in payment reform and system transformation | • Establish self-insured participation work group  
• Develop key messages and engagement strategy  
• Execute on engagement strategy | • Pilot project and systems elicit employer input and actively communicate transformation work | • Engagement strategy is developed | • Employers are engaged and aware of system transformation | Increased employer support for engaging in new payment reform models |
<p>| Engage consumers / community in pilot | • Develop key messages and engagement strategy | • Pilot project and systems elicit | • Patients / consumers are included in | • Patients / consumers are educated about | Improvement in patient experience for pilot |</p>
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| system transformation and payment reform efforts | • Identify at least 1 pilot site to engage consumers in governance structure  
• Discuss and recommend benefit design changes for consumers needed to support system transformation  
• Measure patient experience and use results to drive improvements | employer input and actively communicate transformation work  
• 1 pilot system actively engages consumers in their governance structure | governance  
• Communication plan is developed | system transformation, care coordination and self-management capabilities  
• Primary care and hospital routinely measure patient experience of care | systems |

| Implement ACO Learning Collaborative: Disseminate Tools and Lessons Learned | Provide structured assistance, tools and a collaborative shared learning environment to clinical and administrative participants of the pilot sites to support system transformation |  
• Convene and support the NH ACO Pilot Work Group to provide direction and opportunities for administrative collaboration for the pilot systems  
• Convene and support the NH ACO Pilot Clinical Subcommittee to provide direction and opportunities for clinical collaboration for the pilot systems  
• NH ACO Pilot Project representative participates in the Maine Learning Collaborative and disseminates information back to NH ACO group  
• Document lessons learned and develop useful tools for public dissemination as an “ACO Tool Kit” for the transformation of |  
• Pilot systems receive access to technical assistance, information, and tools to support system transformation |  
• NH ACO Pilot Work Group is convened  
• NH ACO Pilot Clinical Subcommittee is convened |  
• ACO Tool Kit is developed and made publicly available  
• Systems are able to learn from success stories of participants  
• Knowledge on implementing, managing, monitoring ACOs is increased and publicly available | Continued improvement of quality, utilization and care coordination efforts by health systems |
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<td>small and medium sized system to the ACO model (tool development in conjunction with Maine)</td>
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<td>- Initiation of a Maine/NH Learning Conference during pilot</td>
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