New Hampshire's Health Insurance Market and Provider Payment System:

An Analysis of Stakeholder Views

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PREPARED FOR
The New Hampshire Insurance Department

BY
Michael G. Grenier, M.P.A.
Katharine London, M.S.
Amanda Littell-Clark, J.D., M.P.H
Rebecca Kushner, M.P.A.
Javeeria Ghani, M.P.H.

University of Massachusetts Medical School
UMASS

In collaboration with

John Freedman, M.D., M.B.A.
Missy Garrity, M.B.A., P.M.P.

Freedman HEALTHCARE

1. Background

The New Hampshire Insurance Department (NHID) contracted with the Center for Health Law and Economics at the University of Massachusetts Medical School (UMMS) and its partner Freedman HealthCare, LLC (FHC), to better understand the current health service provider payment system in New Hampshire and the impacts of that system on health insurance premium rates and health care costs. NHID charged the team from UMMS and FHC with gathering and analyzing data from a range of health care stakeholders, including insurers, health care providers, state regulators, and consumer associations, with a goal of identifying areas that stakeholders would like the NHID to consider for future system reforms.

FHC conducted and summarized stakeholder interviews, while UMMS conducted data analysis, managed the project, and compiled this report.

Scope and Objectives

A number of factors influence New Hampshire's insurance market, such as the strategies and payment methods adopted by large private and public payers, the geographic isolation of many providers, and competing consumer interests for both lower prices and greater choice. As providers accept more financial risk through alternative payment methods, employers and consumers are increasingly questioning the cost and value of health care coverage. Each of the stakeholders—government, carrier, consumer, and provider—has opportunities to influence the current system, and each in turn is influenced by other segments of the market.

The goal of this study is to address the following broad topics:[1]

- **How market power is distributed among stakeholders in New Hampshire**
  What is the balance of power among stakeholders in creating insurance products and setting rates? How do stakeholder views compare to actual contracting dynamics? How do stakeholder actions affect prices and products?
- **What factors affect costs**
  Is competition among carriers and providers successful in controlling costs? What role does plan design play in mitigating costs?
- **The use of alternative payment methods**
  To what extent are alternative payment methods in use in New Hampshire? Are carriers and/or providers addressing both quality and cost?
- **How stakeholders feel the system should be reformed to improve quality and reduce cost**
  What reform options do stakeholders recommend? Which options are feasible for the NHID or other state agencies to undertake?

Data sources

To develop this report, the project team gathered information from a variety of sources, including stakeholder interviews, data provided by carriers for this analysis, publicly available data previously published by the NHID, and other health system literature. The three main sources of information, described below, are (1) stakeholder interviews, (2) 2011 NHCHIS, and (3) a survey of carriers' 2011 data.

[1] See the Glossary in **Appendix A** for a definition of terms relevant to the health insurance industry.

Stakeholder Interviews

The goals of the interviews were to understand the drivers of health insurance premium rates and health care costs in general, to learn the extent to which providers and carriers are undertaking care delivery and payment reform initiatives, and to gather stakeholder recommendations on actions they believe the state could take to improve the value of health care.

The project team selected stakeholders from three major categories: purchasers/consumers, carriers, and providers. In consultation with NHID staff, the team selected individuals and organizations based on their influence in the New Hampshire health care market, knowledge and experience with issues related to the drivers of health care costs, and involvement in reform initiatives. In addition, we interviewed a representative of a state agency, and included this response in the provider section to protect the individual's confidentiality.

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Summary of the New Hampshire Insurance Market

In 2011, a total of 66% of New Hampshire residents had commercial insurance, while 23% were covered by public insurance (predominantly Medicare and Medicaid), and 11% were uninsured.[2] Overall, there was a 2.9 percentage point decrease in employer-sponsored insurance for New Hampshire residents from 2010 to 2011 and a corresponding 2.8 percentage point increase in the uninsured.[3] This increase in the uninsurance rate is potentially a major concern for the state, if other analyses confirm this trend. However, this result could be an anomaly due to a small sample size.

As **Figure 2.2** shows, New Hampshire's rate of employer-based coverage is substantially higher than the national average, and higher than the other New England states. New Hampshire's rate of uninsurance is lower than the national average of 16%, but is higher than most other states in New England. A total of 7% of New Hampshire residents are enrolled in Medicaid, a rate lower than neighboring states and the national average of 16%.

Figure 2.2: Coverage in New England and Nationally[4]

Location	Employer	Individual	Medicaid	Medicare	Other Public	Uninsured
United States	**49%**	**5%**	**16%**	**13%**	**1%**	**16%**
New Hampshire	61%	5%	7%	15%	1%	11%
Maine	48%	4%	22%	14%	2%	10%
Massachusetts	58%	5%	20%	12%	NSD*	4%
Rhode Island	51%	4%	17%	15%	1%	12%

[2] Kaiser Family Foundation, *Health Insurance Coverage of the Total Population* (2010-2011), http://kff.org/other/state-indicator/total-population/?state=NH.

[3] Kaiser Family Foundation, *Percentage Point Change Among Nonelderly 0-64 by Coverage Type (2010-2011),* http://kff.org/other/state-indicator/point-change-among-nonelderly/.

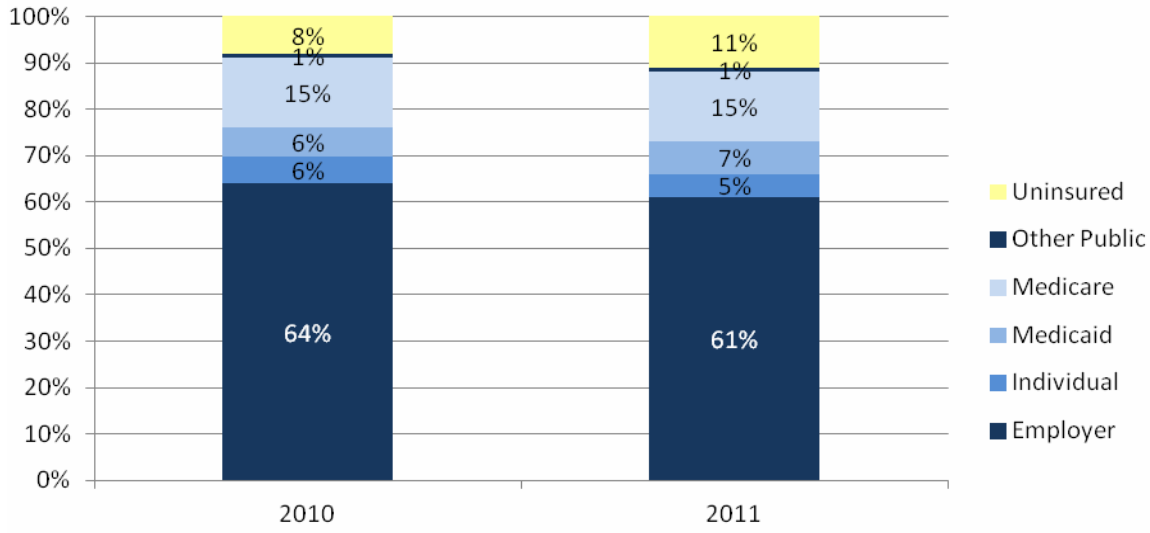
[4] Kaiser Family Foundation, *Health Insurance Coverage of the Total Population (2010-2011),* http://kff.org/other/state-indicator/total-population/.

Vermont	49%	5%	24%	13%	NSD*	9%

**Not sufficient data*

While New Hampshire has a high rate of employer-sponsored insurance, the percent of residents with employer-based coverage fell by 2.9 percentage points between 2010 and 2011, as can be seen in **Figure 2.3**.[5]

Figure 2.3: Sources of Health Insurance Coverage, 2010 and 2011



Kaiser Family Foundation, *Percentage Point Change Among Nonelderly 0-64 by Coverage Type (2010-2011)*

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2. Research Findings and Analysis

Below is a synthesis and analysis of stakeholder viewpoints about aspects of New Hampshire's health insurance market, with supplemental data from 2011 NHCHIS, the carrier survey of 2011 data, and other published literature from the New Hampshire Insurance Department and national sources.

Competing Tensions in the Marketplace

Health care costs were the major focal point for all stakeholders interviewed. Carriers want lower provider payment rates; providers are concerned about low-cost plan designs that might deter patients from seeking care due to high cost-sharing; and employers need health premiums to be financially feasible to afford coverage for staff. The actions and decisions of one group of stakeholders affect other sectors.

[5] Kaiser Family Foundation, *Percentage Point Change Among Nonelderly 0-64 by Coverage Type (2010-2011)*, http://kff.org/other/state-indicator/point-change-among-nonelderly/.

Efforts to contain health care costs are interrelated with efforts to improve quality of care. Stakeholders are thus wrestling with what industry reforms to enact and what role each stakeholder should play in increasing the value of health coverage – that is, improving health outcomes while reducing costs.

Many interview comments underscore the competing tensions among stakeholder philosphies of how the insurance market and health care delivery system should be organized. Stakeholder philosophies fall along a continuum as to whether the solution lies with:

- Having a free market that allows innovation or having greater government oversight to protect consumers
- Using lower-cost site of service facilities to reduce costs or using care coordination so providers can oversee all aspects of a patient's care
- Demanding more accountability for outcomes from providers or demanding more personal responsibility from consumers

Members of a stakeholder group might support a particular type of reform, such as care delivery transformations or products offered to consumers, but oppose other changes, such as provider financial risk for patient health outcomes or regulatory oversight of insurance products. Or a stakeholder might see value in both ends of the spectrum, such as allowing some free market innovations while also having some governmental regulatory oversight. As will be demonstrated throughout this report, these philosophies cross the stakeholder groups. For example, some carriers and providers are interested in free market reforms, while others want greater government involvement, to control costs and improve patient care.

A: Cost

Along with consumers nationwide, New Hampshire residents have seen health care costs – premiums, deductibles, and co-payments – increase in the past decade.

Almost every major point brought up by health industry stakeholders during their interviews touched on cost issues.

Stakeholder Viewpoints on Costs

During interviews, the project team asked stakeholders for their thoughts about costs within the health care system as a whole, as well as about costs paid by employers and employees.

During interviews with carrier representatives, many interviewees stated that costs rise when hospitals purchase independent physician practices. Many carriers stated that hospitals bill for services delivered by physicians or ambulatory care centers as if they were hospital outpatient services. Because carriers typically pay higher fees to hospitals than to freestanding physician practices, including these services under the hospital cost structure increases insurers' costs. Carriers also stated that hospitals bill for a facility fee when members receive services at physician practices outside the hospital grounds. The facility fee is intended to cover high hospital overhead costs, which external sites do not incur. Insurers typically pass these higher costs on to employers and consumers in the form of higher premiums.

One carrier said New Hampshire hospitals have higher margins than other states. Another carrier comment suggested the state should require hospitals to review and reduce administrative costs. Stakeholders representing two carriers and one provider interviewed specifically mentioned that although

carriers are held to a standard for administrative costs, regulators do not scrutinize hospitals' administrative costs with the same level of attention.

> "The supply and demand concept stands on its head in New Hampshire," one carrier said.

There are current hospital efforts underway to reduce administrative costs, although only one provider, a hospital executive, mentioned efforts in this area. Namely, the state Office of Rural Health funded a grant for training in "lean" process improvement methods, to identify opportunities for efficiencies. Nine of the thirteen CAHs participated in lean training in the spring of 2012. Participating hospitals launched their lean projects in 2013. Even though data were not available at the time of the interviews to evaluate the effectiveness of the projects, the hospital executive interviewed was optimistic that the projects would yield positive results and reduce hospital costs.

Most providers, particularly hospitals, felt that higher premium costs are a direct result of underfunded public insurance programs, such as Medicaid. Five of the six hospitals interviewed mentioned the underfunding of Medicaid as a direct driver of commercial premium costs, and two mentioned a study by the New Hampshire Center for Public Policy that attributes a percentage of commercial premiums to cost-shifting.[6] However, one provider said cost-shifting is "a ruse".

One hospital representative attributed high costs in part to Anthem's exclusive relationship with the Federal Employee Program (FEP), which enables Anthem to pay higher average rates to providers, driving up the payment level all providers then expect and thus increasing premiums. The interviewee illustrated the strategy using a radiology service as an example: If Anthem pays providers $100 for chest X-rays for FEP members and $60 for the same X-ray for a non-FEP member, the provider will receive $80 on average for a chest X-ray. Providers then expect other carriers to pay $80 as well, a $20 increase over their existing $60 rate. The interviewee said that when other carriers increase their premiums to cover the higher costs (e.g., $20 increase for a chest X-ray), Anthem then shadows, or matches, those higher premiums, and receives a greater profit from the same premium rates than their competitors due to the profit they make from FEP members.

Two interviewees attributed costs to the single statewide geographic rating area. Both a carrier representative and hospital representative said during interviews that the statewide rating system leads to populations in the south subsidizing the higher cost of the North Country providers; since carriers cannot charge different premiums in different parts of the state, premiums are raised throughout the state to cover the cost of the more expensive contracts in the North Country.

> "Patients are calling to see what the prices for services are" before seeking care.

Multiple stakeholders mentioned the high costs of premiums and deductibles in New Hampshire, citing premiums as the second highest in the country and noting that deductibles are higher than in

[6] Steve Norton, New Hampshire Center for Public Policy Studies, *Health System Cost-Shifting in New Hampshire*, March 2011, http://www.nhpolicy.org/reports/health_system_cost_shifting_finalv2.pdf.

Massachusetts. One carrier said its rate of membership in high deductible health plans is similar to the state average of 18%; however, a provider said "because of high deductible plans, more people are underinsured and bad debt grows." However, carriers also mentioned that state employees have lower cost-sharing than private sector employees. They described the public sector design as an overly-generous, outdated system that is not sustainable. For example, they said state employees have a $1 co-payment for prescription medication.

Employers expressed concerns regarding their ability to afford health insurance for their staff. Some employers are evaluating the financial risks of incurring federal fines by eliminating employer-sponsored insurance and directing their employees to purchase insurance through the Exchange.[7] Both of the purchasers interviewed have developed on-site access to primary care for their employees as a cost savings measure. Employers in the Small Group market have responded to products that control premium increases through the use of high deductibles and lower cost-sharing for site of service facilities.

Interviewees explained that municipalities and other state purchasers feel the expected financial impact of coming ACA requirements is daunting. Many universities have a large number of employees who work 30 hours a week. These employers will have to choose whether to provide health coverage to those employees or to reduce employee hours so they no longer fall under the ACA mandate for coverage of full-time employees. In addition, purchasers interviewed said that all New Hampshire municipalities have premium rates high enough to meet the criteria of "Cadillac plans"[8] under the ACA and are concerned that the municipalities might face a large excise tax on the amount of the premium that the ACA considers excessive.

Hitchiner Manufacturing
A self-insured business, Hitchiner Manufacturing focuses on wellness and prevention to reduce health care costs. Hitchiner's premiums are so high that it is considered a Cadillac health plan and will be subject to the ACA's excise tax on expensive health plans. To help mitigate costs, the company created an onsite wellness center staffed with nurse practitioners that employees and their families can access free of charge for both routine and acute care needs. The clinic is run in collaboration with Southern New Hampshire Health System. The goal of the free clinic is to improve employees' health and reduce the company's health care costs. In addition, Hitchiner considers it part of the company's values to provide health coverage for its employees. The clinic opening in 2011 was covered by the press[9].

What We Can Learn from Data on Industry Costs

Data from NHCHIS and other studies on cost concerns create a clearer picture of some of the issues raised by stakeholders.

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[7] Businesses with 50 or more full-time employees will be fined $2,000 per employee (excluding the first 30 employees) if they do not offer coverage for employees who average 30 or more hours per week; for example, for an employer with 100 full-time employees, 70 would be counted towards the fine. Note that there is no penalty for not offering coverage to part-time employees. See http://kff.org/health-reform/fact-sheet/explaining-health-reform-how-will-the-affordable-care-act-affect-small-businesses-and-their-employees/.

[8] Beginning in 2018, a new federal excise tax will be assessed on insurance companies for health plans that are extremely expensive (in excess of $10,200 for self-only coverage, $27,500 for families). These plans are popularly referred to as "Cadillac plans". See http://www.healthcare.gov/news/brochures/info-for-small-businesses.pdf.

[9] "Hitchener opens a clinic for workers." *New Hampshire Union Leader*. October 5, 2011. http://www.unionleader.com/article/20111006/NEWS02/710069989

Hospital Margins

Stakeholders spoke about hospital practices affecting premium costs, including high hospital margins. A report on 2008 financial indicators placed New Hampshire community hospitals' margins at 4.6%, compared to -0.4% for Maine, -1.4% for Vermont, -8.9% for Rhode Island, and -11.8% for Massachusetts.[10]

A report on New Hampshire acute care hospitals' 2009 operating margins show margins that range from -12.1% (Huggins Hospital) to 22.3% (Portsmouth Regional Hospital); half (13) of the hospitals had negative operating margins, while six had margins higher than 7%.[11] The state average operating margin for all 26 acute care hospitals in 2009 was 2.1%.[12]

Cost-Shifting

Nationally, many health care stakeholders believe a substantial amount of provider cost-shifting occurs due to low public payment rates. The perception is that providers recoup Medicaid and Medicare losses by seeking higher payments from private carriers.

The New Hampshire Center for Public Policy, mentioned by two interviewees, issued a report illustrating public payer rates that are below the average cost of care, and commercial rates that are above the average cost of care--thus attempting to demonstrate how costs are shifted from public to private carriers.[13]

However, other studies of the issue have shown a more complex picture.

An April 2013 study disputed the cost-shifting theory when it found that a 10% reduction in Medicare payment rates led to a 3% or 8% *reduction* in private payment rates.

- A comprehensive literature review published in 2011 demonstrated that while cost-shifting does occur, it typically occurs at a lower rate than generally assumed and only when a provider possesses market power to demand higher prices from a carrier. Based on the review of the literature, the author estimated that when cost-shifting occurs, the "shift" from public to private payers is likely 20 cents on the dollar.[14]
- A 2010 study by Vivian Wu found some cost-shifting occurred when Medicare rates were reduced as part of the Balanced Budget Act of 1997. Hospitals with an average Medicare payer mix were able to shift on average 21% of the loss to private payers. However, poorer hospitals that were more

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[10] Arkansas Hospital Association, *Comparative Financial Indicators, U.S. Community Hospitals, 2008,* http://www.arkhospitals.org/archive/arkhospmagpdf/Summer10stat16.pdf.
[11] Katharine London, et al., University of Massachusetts Medical School, *Analysis of Price Variations in New Hampshire Hospitals*, April 2012, http://www.nh.gov/insurance/lah/documents/umms.pdf.
[12] Katharine London, et al., University of Massachusetts Medical School, *Analysis of Price Variations in New Hampshire Hospitals*, April 2012, http://www.nh.gov/insurance/lah/documents/umms.pdf.
[13] Steve Norton, New Hampshire Center for Public Policy Studies, *Health System Cost-Shifting in New Hampshire*, March 2011, http://www.nhpolicy.org/reports/health_system_cost_shifting_finalv2.pdf.
[14] Austin Frakt. *How Much Do Hospitals Cost Shift? A Review of the Evidence.* The Milbank Quarterly. 89.1. March 2011, http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3160596/.

dependent on Medicare for funding were unable to cost-shift despite their larger reduction in funding.[15]

- An April 2013 study disputed the cost-shifting theory when it found that a 10% reduction in Medicare payment rates led to a 3% or 8% reduction in private payment rates between 1995 and 2009. The study noted that hospitals may have lowered private rates to remain competitive in the commercial market.[16]
- A 2012 study for the NHID by the University of Massachusetts Medical School found that the more Medicaid patients a hospital treated, the lower its commercial outpatient prices. While there was a positive correlation between the percent of Medicare patients and commercial inpatient and outpatient prices, the percent of uninsured patients had no impact on the hospital's commercial insurance prices.[17]

These studies collectively indicate that while cost-shifting from public to private rates may occur, it likely has a lower impact on commercial prices than generally supposed.

Provider Rates

Carrier payments to providers are a major component of system-wide health care costs. In exchange for business (i.e., patients), carriers demand discounts from providers from their base charge for services. Thus a carrier with more power, usually evidenced by market share, can demand larger discounts and accrue more members attracted by the lower premiums that carrier can afford to charge. Small carriers face difficulty in increasing their membership, in part due to non-competitive contracts with providers.

Analyses of carrier discounts by product type conducted by the NHID for 2009 and 2011 show large differences in how much carriers pay providers, and thus their competitive advantage for members. For example, in 2011, Cigna and Harvard Pilgrim negotiated discounts of 37% and 36% respectively for PPOs, while MVP's discount rate was 30%. On the other hand, Cigna's POS discount rate of 27% is far below Anthem and Harvard Pilgrim's discount of 41%. In 2011, Cigna reduced its POS discount rate to 3 percentage points below 2009 levels, while increasing its PPO discount by 3 percentage points. Harvard Pilgrim negotiated increases in its discount rates of 5 percentage points for both PPOs and POS contracts.[18] **Figure 3.1** shows the PPO discount rates in 2009 and 2011.

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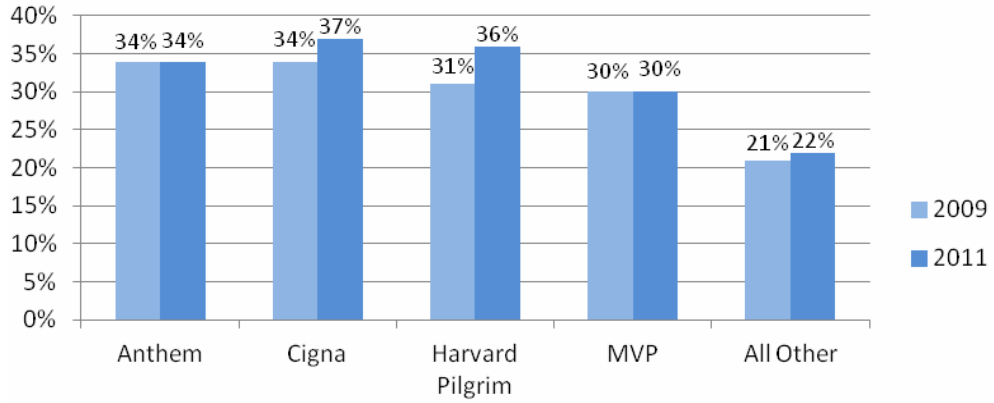
[15] Vivian Wu, *Hospital cost shifting revisited: new evidence from the balanced budget act of 1997*, January 2010, http://link.springer.com/content/pdf/10.1007%2Fs10754-009-9071-5.pdf.

[16] Chapin White, Health Affairs, *Contrary To Cost-Shift Theory, Lower Medicare Hospital Payment Rates For Inpatient Care Lead To Lower Private Payment Rates*, May 2013, http://content.healthaffairs.org/content/32/5/935.full.

[17] Katharine London, et al., University of Massachusetts Medical School, *Analysis of Price Variations in New Hampshire Hospitals*, April 2012, http://www.nh.gov/insurance/lah/documents/umms.pdf.

[18] NHID, *Payments to providers part II: another look at carrier discounts*, August 2012, http://www.nh.gov/insurance/reports/documents/nhid_prov_disc_study_partII.pdf.

Figure 3.1: PPO Carrier Discounts from Providers, 2009 vs. 2011



NHID, *Payments to providers: an inside look at carrier discounts* and *Payments to providers part II: another look at carrier discounts*

Southern vs. Northern Prices

Some stakeholders felt southern residents subsidize higher-cost providers in the north, and multiple interviewees stated that providers in rural regions without competition are able to command higher contracts. However, an analysis of prices paid to hospitals in 2009 in the northern, central/western, and southeastern regions found no statistically significant differences between the regions. The average prices for commercial coverage was on average higher in the north ($11,188) than in the southeastern ($9,984) and central/western ($9,424) regions, but the range of prices in the north fell within the ranges for the other two regions, albeit at the upper end of the spectrum. The hospital with the highest average commercial prices was in the southeastern region.[19]

Coos and Carroll Counties have a larger percentage of residents over 65 (21.4% and 20% respectively), much higher than the southern Rockingham, Strafford and Hillsborough Counties, whose elderly comprise 12% - 13% of the county population.[20] However, given that only approximately 8% of the state's population lives in Coos County and northern Carroll and Grafton counties[21], they likely have a limited impact on health care costs in the entire state, despite the higher proportion of residents who are older, and therefore more likely to need and use medical care, than the rest of the state.

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[19] Katharine London, et al., University of Massachusetts Medical School, *Analysis of Price Variations in New Hampshire Hospitals*, April 2012, http://www.nh.gov/insurance/lah/documents/umms.pdf.
[20] United States Census Bureau, *State and County Quick Facts, 2011,* http://quickfacts.census.gov/qfd/states/33/33019.html.
[21] Estimated from data from United States Census Bureau, *State and County Quick Facts, 2012 estimate,* http://quickfacts.census.gov/qfd/states/33000.html.

Figure 3.7: Average Consumer Payment Amounts by Group Size

Group Size	Co-payment	Co-insurance	Deductible	Total Out of Pocket Costs
All members	$103	$80	$253	$436
Large Group	$98	$83	$188	$369
Small Group	$155	$53	$456	$665
Non-Group	$59	$125	$700	$883

Source: Authors' analysis of 2011 NHCHIS

Despite the increase in high deductible health plans, the majority of patients (70%) paid no deductible in 2011, while approximately 23% paid $500 or less. See **Figure 3.8**, which has a comparison of the number of members whose plans have deductibles at each level and the number of members who actually incurred each deductible level in 2011.[22] For example, while 36% of members were in plans with deductibles greater than $1,500, only 1.4% of members incurred deductibles that high, and fewer than a thousand members incurred deductibles higher than $3,000.

Figure 3.8: Deductible levels in plan design versus actual amount incurred

Deductible *values in **bold** indicate high deductible levels for a family plan*	**# of members with deductible amount in plan design, 2011** (Supplemental Report of the 2011 Health Insurance Market in NH)	**% of members** with deductible amount in plan design, 2011	**# of members incurring deductible amount, 2011** (2011 NHCHIS)	**% of members** incurring deductible amount, 2011
$0	205,324	33%	438,935	70%
$1-$500	67,727	11%	147,394	23%
$501-$1,000	56,276	9%	25,848	4%
$1,001-$1,500	76,525	12%	9,249	1%
$1,501-**$3,000**	114,798	18%	8,123	1%
$3,001-$5,000	78,906	13%	691	< 1%
>$5,000	30,786	5%	102	< 1%
Total	**630,342**	**100%**	**630,342**	**100%**

**total based on figures in Supplemental Report of the 2011 Health Insurance Market in NH*

While cost-sharing is widely used and increasing, a body of research on the impact of cost-sharing shows that higher cost-sharing often results in patients delaying care, not filling prescriptions, or avoiding care altogether. A Kaiser Family Foundation report summarizes studies on this issue. Kaiser highlighted one study that shows that higher Medicaid cost sharing reduces the use of both non-essential services as well as essential, needed care. A study of employer-based commercial insurance found members with chronic diseases reduced their use of certain prescription medications after co-payments were doubled; diabetics reduced their use of anti-diabetes medications by 23 percent.[23]

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[22] To identify members with incurred deductibles, the authors summed the deductible amounts reported on member claims for a unique count of members.

[23] Kaiser Family Foundation, *Premiums and Cost Sharing in Medicaid: A Review of Research Findings*, February 2013, http://kaiserfamilyfoundation.files.wordpress.com/2013/02/8417.pdf.

B: Competition

Competition among carriers as well as providers is often a driver for cost reform in the health care industry. Payers who are able to choose among multiple providers can select those they feel provide the highest quality service for the lowest cost, and can reject provider demands for payment increases. Similarly, when several carriers compete for members in the same market, the carriers must demonstrate the quality of their services and risk losing members if they increase costs without adding value, or benefit richness, to their products.

In New Hampshire, local factors have created markets with limited competition among both carriers and providers. This market structure results in many providers having the power to demand certain payment levels, while smaller carriers feel dominated by the largest player.

Stakeholder Viewpoints on Carrier Competition

During the interview process, the project team asked stakeholders for their opinions on how competitive the insurance market is. The questions addressed the contracting environment in New Hampshire, how the level of competitiveness has affected costs, and the role of dominant carriers.

> "Purchasers are driven by cost," one carrier said during the interview.

Most providers interviewed said they have not observed competition among insurance companies. However, the carriers themselves felt they are very competitive. One carrier said the "three carriers with significant membership" are "all very competitive." Carriers interviewed said they compete on service and medical costs, complying with the ACA-mandated Medical Loss Ratio (MLR) and requirements for statewide networks for certain plan designs/products. Carriers also said that purchasers are price-sensitive and will switch carriers for a small amount of savings offered by a competing carrier; this particularly holds true for self-insured accounts. A carrier explained, "Purchasers are driven by cost. [We] *can* win with lower premiums. There is not necessarily loyalty to a payer in the Small Group market." A purchaser said the "decision is driven by cost for small groups – there is no real difference among products." A carrier described carrier competition by saying "purchasers are willing to move for 2% premium differential."

Anthem was also described as affecting the insurance environment through its push to include site of service incentives in all Small Group products. One stakeholder commented, "Anthem is a market maker – they can study products in multiple markets and spin them out quickly." Site of service has been so successful in reducing costs that Harvard Pilgrim Health Care also came to market with a similar plan design.

Interviewees from multiple stakeholder categories mentioned that due to New Hampshire's small population, the addition of new carriers would not improve health care costs or delivery and the risk pool is not large enough to support additional carriers.

Analyzing Carrier Competition

One measure used to identify the level of competitiveness in the health insurance market is the Herfindahl-Hirschman Index (HHI), which uses each carrier's market share to calculate overall competitiveness of the market. HHI scores below 1,500 indicate a non-concentrated market, 1,500-2,500 show moderate concentration, and scores higher than 2,500 indicate the market is highly concentrated in the hands of one or a few carriers.

Herfindahl-Hirschman Index (HHI)[24]

The Herfindahl–Hirschman Index (HHI) is a commonly accepted measure of market concentration. The Department of Justice and the Federal Trade Commission use the HHI, among other measures, to analyze mergers and acquisitions involving actual or potential competitors under the federal antitrust laws.

See **Appendix D** for a more detailed explanation of the method and data used to calculate the HHI scores.

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Stakeholder Viewpoints on Hospital Competition

All stakeholder groups recognized that due to the state's geography, there is little competition among New Hampshire hospitals. A stakeholder said hospital "competitiveness for providers is local." The exceptions are in Manchester and Nashua, referred to as hospital towns, where hospitals compete for patients in their catchment area. One seacoast area hospital executive interviewed described the population living on the seacoast as being loyal to their own hospital. In addition, one carrier described Nashua providers as being "threatened by the Massachusetts market."

> One provider described a "series of micro-markets made up of a hospital and the surrounding medical community that has developed over time."

A unique dynamic of New Hampshire geography is that it is more difficult for residents of southern New Hampshire to access Mary Hitchcock Memorial Hospital, the only tertiary hospital in the state, than Massachusetts General Hospital in Boston.

Southern New Hampshire hospital providers and two of the carriers mentioned the increasing presence of Massachusetts-based providers such as Boston Children's Hospital, Lahey Clinic, and Massachusetts General Hospital in New Hampshire, as well as other Massachusetts facilities closer to the New Hampshire border.

One hospital executive described "competing and collaborating at the same time" with other hospitals who, due to a small physician pool in the North Country, share hospitalists and call coverage while still competing for patients. This relationship was echoed in comments by other hospitals and the FQHCs.

[24] From Department of Justice materials found at http://www.justice.gov/atr/public/guidelines/hhi.html and http://www.justice.gov/atr/public/guidelines/hmg-2010.html#5c.

Another example of hospital collaboration mentioned by interviewees is the Granite Healthcare Network, popularly called the G5, a consortium of five hospitals who are working together to build capacity for information analysis and sharing and improved population health management.

Some carriers felt that hospital purchases of physician practices reduced competition among providers and gave hospitals more power during contract negotiations. A carrier interviewed said "Consumers and providers have no awareness of price variance among providers."

However, most providers interviewed said they feel powerless when it comes to negotiations with health plans. Several providers, both hospitals and federally qualified health centers (FQHCs)[25] named Anthem specifically as the dominant force, using phrases such as "the big blue gorilla" and "the 800 pound gorilla". Providers believe health plans do not consider them a partner in the health care system. While many providers want the state to equalize the power dynamic for contract negotiations with carriers, none offered specific remedies for how this should be accomplished.
The purchasers interviewed do not see competitiveness among providers; rather, they observe consolidation and collaboration.

What We Can Learn from Data on Hospital Competition

According to 2011 NHCHIS data, the largest market share belongs to Mary Hitchcock Hospital, part of the extensive Dartmouth-Hitchcock health care system, a network of more than 900 primary and specialty care physicians in New Hampshire and Vermont. See **Figure 3.12** for the total charges for each hospital.

Figure 3.12: Hospitals by Percent of Total Charges

Hospital	Total Charges (in millions)	% of Charges
Mary Hitchcock Memorial Hospital	$244M	15%
Concord Hospital	$178M	11%
Elliot Hospital	$177M	11%
Catholic Medical Center	$165M	10%
St. Joseph Hospital	$105M	6%
Wentworth-Douglass Hospital	$105M	6%
Portsmouth Regional Hospital	$96M	6%
Southern New Hampshire Medical Center	$91M	6%
Exeter Hospital	$77M	5%
Lakes Region General Hospital	$63M	4%
Parkland Medical Center	$50M	3%
Frisbie Memorial Hospital	$42M	3%
The Cheshire Medical Center	$38M	2%
Monadnock Community Hospital	$27M	2%
Littleton Regional Hospital	$20M	1%
New London Hospital	$17M	1%

[25] A federally qualified health center (FQHC) is defined by the Medicare and Medicaid statutes and receives federal grants under Section 330 of the Public Health Service Act; FQHC Look-Alikes meet all of the PHS Section 330 eligibility requirements but do not receive grant funding. More information is available at: http://www.raconline.org/topics/federally-qualified-health-centers/faqs/

Hospital	Total Charges (in millions)	% of Charges
Androscoggin Valley Hospital	$17M	1%
Speare Memorial Hospital	$16M	1%
The Memorial Hospital	$16M	1%
Alice Peck Day Memorial Hospital	$14M	1%
Huggins Hospital	$13M	1%
Valley Regional Hospital	$12M	1%
Franklin Regional Hospital	$10M	1%
Weeks Medical Center	$9M	1%
Northeast Rehabilitation Hospital	$7M	< 1%
Cottage Hospital	$5M	< 1%
Hampstead Hospital	$3M	< 1%
Upper Connecticut Valley Hospital	$3M	< 1%
HealthSouth Rehabilitation Hospital	$2M	< 1%
New Hampshire Hospital	$1M	< 1%
Total	**$1,620M**	**100%**

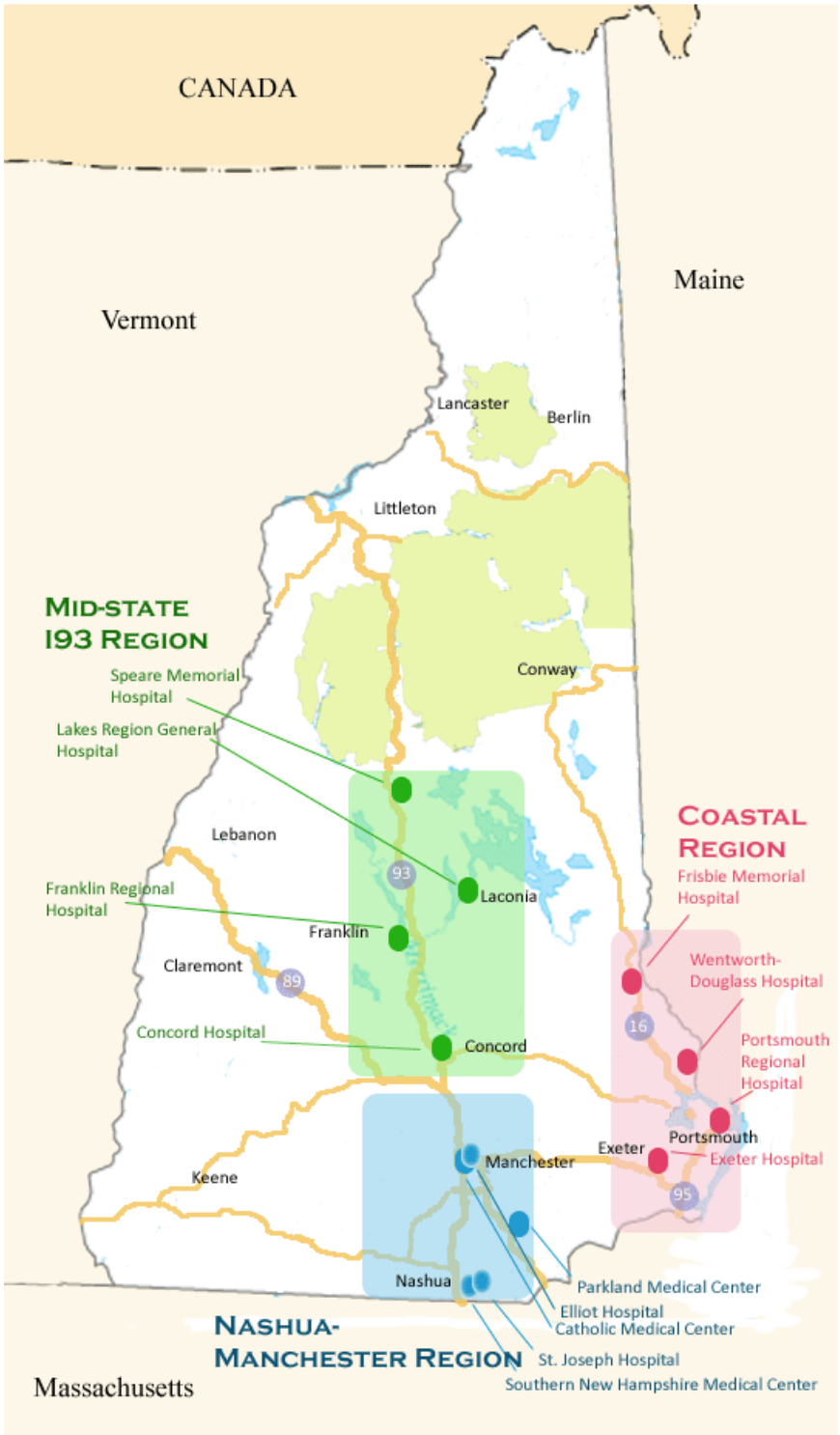
Source: Authors' analysis of 2011 NHCHIS

As stakeholders mentioned, in some regions of New Hampshire there is little competition among hospitals. Due to their isolated locations, the six northern hospitals face limited competition. Also, specialty hospitals often do not face competition and thus command more power in the marketplace.

However, in three regions, multiple acute care hospitals compete for market share: along I93 mid-state, along the coastal region, and in the Nashua-Manchester area (see **Figure 3.13**).

The project team calculated HHI scores based on total payments for each acute hospital in those three regions, but did not include specialty hospitals sited in those geographic regions. In addition, the project team did not calculate an HHI score for isolated hospitals without competitors. See **Appendix D** for more information on calculating and interpreting the HHI score.

Figure 3.13: Map of Three Potentially Competitive Hospital Markets



The HHI calculations shown in **Figure 3.14** indicate that the mid-state I93 region, with an HHI score of 4,783, is highly concentrated. The Coastal region, with a score of 2,675, also has a highly concentrated market, albeit it less so than the I93 region, due to three Coastal hospitals all having large market shares. But the Nashua-Manchester region has a score of 2,396, which indicates only moderate concentration;

four hospitals each have large market shares. Note that Concord Hospital could be included in either the Mid-state I93 region or the Nashua-Manchester region without changing the level of competitiveness in those regions; if Concord is excluded from the I93 region, the region's HHI score would still show a highly concentrated market, while inclusion of Concord in the Nashua-Manchester region would lower that region's HHI score but it would still show moderate concentration. In addition, if Massachusetts border hospitals were included in the analysis, the market concentration for southern New Hampshire hospitals would likely decrease.

Figure 3.14: HHI scores to evaluate hospital competitiveness in three regions

Mid-state I93 region	% of payments
Speare Memorial Hospital	7%
Lakes Region General Hospital	25%
Franklin Regional Hospital	5%
Concord Hospital	64%
HHI score:	**4,783**
Coastal region	**% of payments**
Frisbie Memorial Hospital	14%
Wentworth-Douglass Hospital	31%
Portsmouth Regional Hospital	27%
Exeter Hospital	28%
HHI score:	**2,675**
Nashua-Manchester region	**% of payments**
St. Joseph Hospital	17%
Southern New Hampshire Medical Center	16%
Parkland Medical Center	8%
Elliot Hospital	34%
Catholic Medical Center	25%
HHI score:	**2,396**

Source: Authors' analysis of 2011 NHCHIS

[. . .]

The two Federally Qualified Health Centers (FQHC) and one FQHC Look-Alike interviewed, as well as the professional association for primary care practices, all agree plan design should focus on primary care and care integration to both improve quality and reduce costs. They see a focus on population health as having the most potential for eventually reducing the amount of care needed, and therefore the total cost of care. The primary care practices, as well as one employer interviewed, also expressed concern that increased cost-sharing via higher deductibles and co-payments deters patients from seeking care, filling their medications, and getting needed procedures. Costs increase for the system when patients delay treatment until their health situation is critical, and thus more expensive to treat.

One provider said the state needs to "invest in primary care" and that "demand will increase with the expansion of the insured through the Exchange and Medicaid expansion."

[. . .]

D: Delivery and Payment System Reform

Another approach to reducing costs and improving quality involves more extensive delivery and payment system reform efforts. This approach includes holding providers accountable for their patients' health and use of medical services, through development of ACOs and risk-bearing contracts that reward providers for patient outcomes, as well as by redesigning the care delivery system to be more patient-centered and focused on wellness. These efforts are expected to reduce costs through lower utilization of high cost procedures and hospital inpatient services.

New Hampshire's health care industry faces the same challenge that exists nationwide, as the current payment mechanisms lack the ability to cover non-traditional payment arrangements.

Stakeholder Viewpoints on Delivery System Redesign

At least one person in each stakeholder category, and most participants overall, noted that coordination of care and accountability for management of populations of patients is the right approach to achieving a high value health care system in New Hampshire. One provider said the "provider community is positioning themselves to move in the direction of more patient-centered, coordinated care." Models such as Patient Centered Medical Homes (PCMHs), Accountable Care Organizations, and Centers for Medicare and Medicaid Services (CMS) Shared Savings models support this approach. A carrier said "New Hampshire is advanced in PCMHs" with many Level 3 NCQA accredited.

There are several extant examples of provider initiatives to integrate and coordinate care, including the Dartmouth ACO, the North Country ACO and the Granite Healthcare Network (G5 hospital consortium). Further, the Citizens' Health Initiative and the New Hampshire Purchasers' Group on Health continue to support and move forward collaborative models between providers, carriers and purchasers to 'test out' new payment and delivery system models in an effort to improve quality and address high costs. An employer interviewed said they are "partnering with Dartmouth-Hitchcock, putting a dashboard together on wellness measures" as a way to reduce costs through improved health of employees. Another stakeholder said "MCOs [Managed Care Organizations] can provide great value to the health centers because of their robust informatics."

"Value-based discussions have gained a lot of steam in New Hampshire," said one stakeholder.

For example, the Granite Healthcare Network purchased Verisk, a software tool that helps with population health management, for use in its five hospitals. Second, providers are eager to create new opportunities to experiment with innovative models of care and to take on risk. For example, a group of community health centers established the North Country ACO in order to take advantage of a Medicare shared savings pilot, whereby providers receive part of the savings for meeting care benchmarks at reduced costs.

A number of providers expressed interested in taking on risk,[26] though one hospital was not interested because they do not have the infrastructure or skills needed to manage population health. Independent primary care practices, most often FQHCs, Rural Health Centers, or FQHC Look-Alikes understand the need for care reform and are practicing a model of care that aligns with ACA models and brings value to the system. One Critical Access Hospital said they are part of Dartmouth-Hitchcock's ACO, and the "motivation is to reduce costs"; the stakeholder explained the ACO has both upside and downside risk in its contract with Anthem. Several stakeholders indicated they were waiting to see the outcomes of a national three-year study the Centers for Medicare and Medicaid Sevices (CMS) is conducting of four models of bundled payments for inpatient acute care and post-discharge services. A provider commented that it is "going to be a wild ride," and they will need to "look for opportunities that are appropriate."

Interviewees expressed both an interest in health system transformation, as well as reservations regarding the ability to do so. Some expressed doubts about provider willingness to accept risk and the inability of the current claims system to support change; one provider said "Bundled payments are bigger than a breadbox. Claims systems aren't ready and providers aren't in agreement clinically on what should be included." In addition, one carrier said to "be careful of ACOs", and that they "should be building integration versus gaining leverage through size." Another stakeholder said "[We're] not seeing the integration you would expect either clinically or administratively, even for many of those that are formally integrated," adding that they do not see providers and patients interested in "changing the way health care is delivered," such as patient centered medical homes. Another provider said they are not seeing pay-for-performance, global payments or other alternative payment methods, and a carrier said they use "very few bundled or fixed payment methods (such as DRGs or per diems)" and that "percent of billed charges is still predominately used."

A carrier noted that "When there is no progress on new models, it's because infrastructure is lacking."

In order to continue to move the system toward value, stakeholders feel they need:

- Appropriate funding for technology and workforce development
- Skills and technical ability within and across providers
- Capacity to utilize actionable population and performance management reporting data
- Ability to develop interventions or responses to address gaps in care

However, carriers feel that despite a fair amount of consolidation among providers, there is a lack of clinical and administrative integration. Carriers also mentioned that alternative provider entrants to market, such as Shields and CVS MinuteClinic, are not interested in the New Hampshire market due to

[26] Employer financial risk for costs of health coverage for employees—that is, whether the employer wants to risk owing addition funds if employees' health care costs rise or would prefer to let an insurance carrier assume that risk—is different from provider financial risk—which involves holding providers financially accountable for poor patient outcomes or patient cost of care.

the small size and the difficulty in obtaining provider referrals and encouraging patients to move away from the existing delivery system.

Many stakeholders expressed concerns about system changes related to the Affordable Care Act, such as the imminent implementation of the Health Benefit Exchange and possible Medicaid expansion, worrying that these changes could result in physician shortages and further underpayment by an expanded Medicaid program.

[. . .]

What We Can Learn from Data on Delivery System Redesign

Delivery system redesign is underway in New Hampshire, through collaborations that attempt to reshape the relationship between patients, providers, and carriers. Accountable Care Organizations as well as looser affiliations and consortiums are common among physicians and hospitals. Through combined resources and performance-based contracts, these collaborations aim to improve the efficiency and effectiveness of the care they provide. Citizen-based initiatives work with consumers to improve population wellness, and with employers and providers to test out new models of care.

Below are some examples of payment and care reform initiatives currently underway in New Hampshire; if these initiatives are successful, they may serve as models for state efforts to improve the quality and decrease the cost of health care. **Figure 3.19** is a map of New Hampshire indicating the location of the organizations involved in these innovation initatives.

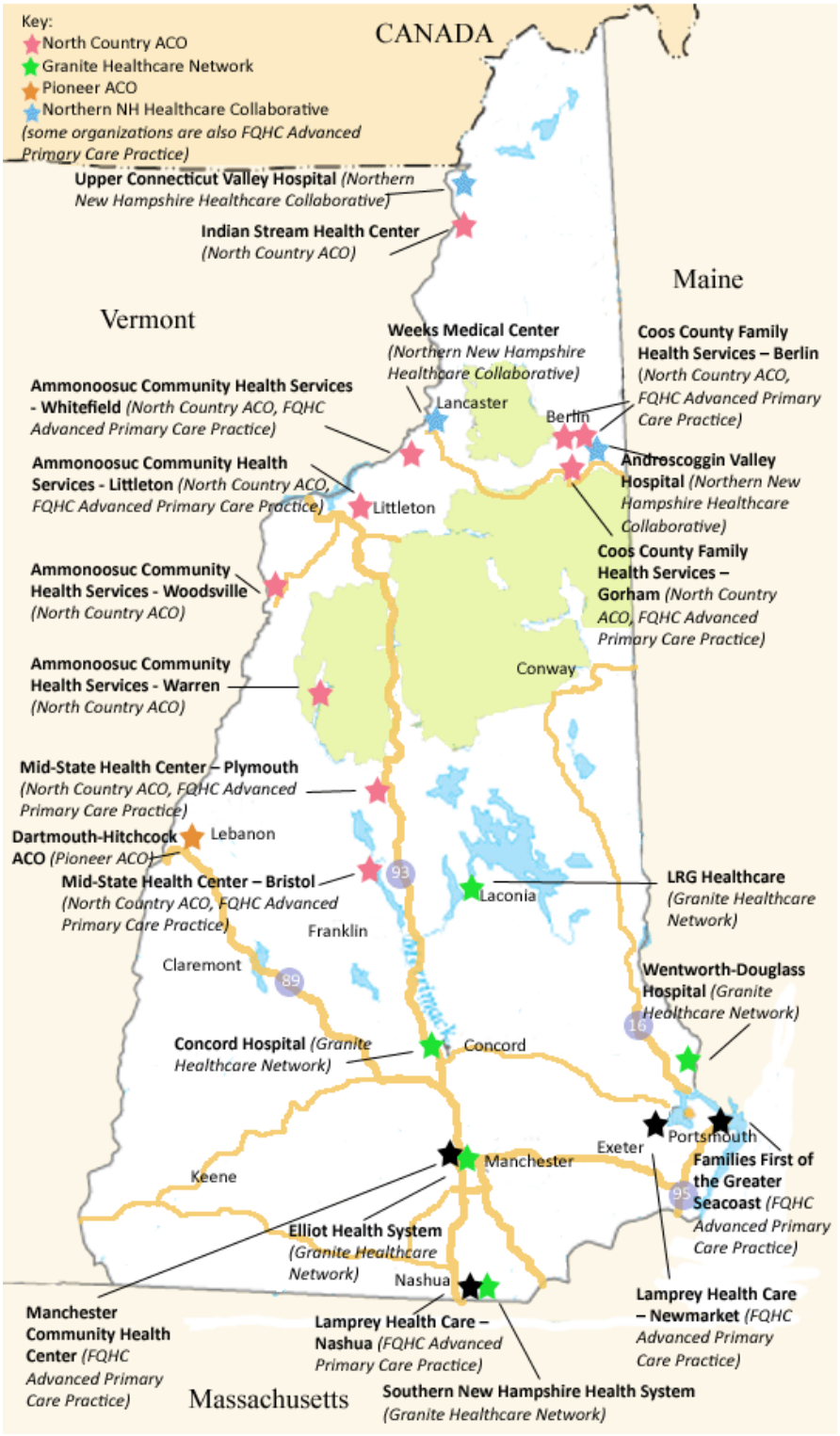
CMS Demonstrations and Pilots

There are currently a number of payment and care reform demonstrations and pilots funded by the Centers for Medicare and Medicaid Sevices (CMS) in which various New Hampshire providers are participating. The individuals and organizations involved in these projects can share lessons learned to assist peers in their care reform efforts.

- **State Innovation Models Initiative:** To align consumer access across delivery system silos, carrier support for outcomes-based long-term care services, and global accountabliilty for cost-effectiveness and outcomes. Participating entities: statewide
- **Pioneer ACO Model:** To allow provider groups to move from a shared savings payment model to a population-based payment model on a track consistent with the Medicare Shared Services Program, by working with private carriers to align provider incentives to improve quality and outcomes as well as achieve savings for Medicare, employers and patients. Participating entities: Dartmouth-Hitchcock ACO
- **Advanced Payment ACO Model:** To enable physician-based and rural providers who have voluntarily created an ACO to coordinate high-quality care for Medicare patients. Participating entities: North Country ACO
- **Medicaid Incentives for the Prevention of Chronic Diseases Model:** To provide incentives to Medicaid beneficiaries who participate in prevention programs and demosntrate changes in health risks and outcomes, using evidence-based research. Participating entties: state-wide
- **FQHC Advanced Primary Care Practice:** To show how the patient-centered medical home model can improve quality of care, promote better health, and lower costs. Participating entities: Ammonoosuc Community Health Services (Littleton and Whitefield), Coos County Family Health Services (Gorham, Page Hill, Pleasant), Families First of the Greater Seacoast, Lamprey Health Care

(Nashua, Newmarket), Manchester Community Health Center, Mid-State Health Center (Bristol and Plymouth)

Figure 3.19: Map of Innovation Initiatives in New Hampshire



3. Conclusion

New Hampshire's health care premiums and deductibles are among the highest in the country. Cost is thus a concern for all stakeholders: consumers, carriers, providers, and employers.

The interviewed stakeholders often attributed the high cost of health care to a variety of factors, including:

- A lack of provider and carrier competition in rural areas;
- A lack of competition due to carrier dominance;
- A trend toward consolidation as hospitals buy up physician practices;
- An increase in the use of higher-cost sharing products; and
- A lack of transparent data regarding health care quality and cost.

The health care industry is beginning to utilize a holistic approach to reduce health care costs while simultaneously improving the quality of care and value achieved. Although competition may never be an effective force in cost reduction in New Hampshire, carriers have found success in plan design changes such as increased cost sharing and site of service plans. However, some providers and consumers are concerned that these products negatively affect patient care. To the extent that carriers increase their use of quality metrics, better data would become available to ensure that cost reduction is not the sole consideration to plan design changes.

Providers and carriers have also begun the process of reforming care delivery and the provider payment system, to use outcome performance as the lever to reduce unnecessary utilization of medical services and thus lower costs. Accountable care organizations (ACOs) are found throughout the state, and many use performance-based contracts. Again, as data becomes available, providers and carriers will be able to identify successful approaches to adopt.

The stakeholder interviews identified common reform themes from industry experts. Stakeholders repeatedly mentioned a need for state leadership in developing a long-term health care vision for New Hampshire, which would then inform other programs, such as the Certificate of Need process and level of primary care investment. During interviews, stakeholders also requested state assistance in identifying and sharing best practices in the industry. There was also a call for state involvement with the development of new payment models and oversight of the payment industry. Stakeholders also stated a desire for better access to cost and utilization data, as well as training and infrastructure to use data to improve health outcomes.

NHID and other government sectors will need to determine which stakeholder recommendations they feel are the most appropriate to enact, but New Hampshire has a clear opportunity to improve both how care is delivered to patients and how costs affect the health care industry and insurance system.

6. Appendices

Appendix A: Glossary

Types of Products:[27]

EPO (Exclusive Provider Organization)	A more restrictive type of preferred provider organization plan under which employees must use providers from the specified network of physicians and hospitals to receive coverage; there is no coverage for care received from a non-network provider except in an emergency situation.
HMO (Health Maintenance Organization)	A health care system that assumes both the financial risks associated with providing comprehensive medical services (insurance and service risk) and the responsibility for health care delivery in a particular geographic area to HMO members, usually in return for a fixed, prepaid fee. Financial risk may be shared with the providers participating in the HMO.
Indemnity	A type of medical plan that reimburses the patient and/or provider as expenses are incurred. A "conventional indemnity plan" allows the participant the choice of any provider without effect on reimbursement.
PHO (Physician-hospital organization)	Alliances between physicians and hospitals to help providers attain market share, improve bargaining power and reduce administrative costs. These entities sell their services to managed care organizations or directly to employers.
POS (Point of Service)	A POS plan is an "HMO/PPO" hybrid; sometimes referred to as an "open-ended" HMO when offered by an HMO. POS plans resemble HMOs for in-network services. Services received outside of the network are usually reimbursed in a manner similar to conventional indemnity plans (e.g., provider reimbursement based on a fee schedule or usual, customary and reasonable charges).
PPO (Preferred Provider Organization)	An indemnity plan where coverage is provided to participants through a network of selected health care providers (such as hospitals and physicians). The enrollees may go outside the network, but would incur larger costs in the form of higher deductibles, higher coinsurance rates, or nondiscounted charges from the providers.

[. . .]

[27] Bureau of Labor Statistics, *Definitions Of Health Insurance Terms* http://www.bls.gov/ncs/ebs/sp/healthterms.pdf (June 2013).

Appendix D: Herfindahl-Hirschman Index (HHI) explanation and methodology

The Herfindahl-Hirschman Index (HHI) shows the level of competitiveness in a region and is calculated based on market share for each entity in a region.

Calculation method

The HHI score is calculated by squaring each entity's market share, then summing the squares to create the HHI score. The table below shows an example of how the HHI is calculated.

Carrier	Market Share (% of members)	Square of market share
A	20%	400
B	50%	2,500
C	30%	900
Total (HHI score)		**3,800**

Thus regions where most entities have similar market shares (such as 10 insurance carriers each with 5%-15% of the market) will have low HHI scores, while a region with a few strong entities (such as one carrier with a 50% market share and 9 carriers with approximately 5% each) will have a high HHI score.

For carriers, the market share in this study was defined as the percent of total members. For hospitals, the market share was defined as percent of total payments (allowed amount).

Interpretation of results

If the score is…	**that indicates…**
<1,500	the market is not concentrated
1,500-2,500	the mark has moderate concentration
>2,500	a highly concentrated market

The Department of Justice and the Federal Trade Commission use the HHI, among other analyses, to determine whether a merger or acquisition precipitates anti-trust concerns. More information is available at http://www.justice.gov/atr/public/guidelines/hhi.html and http://www.justice.gov/atr/public/guidelines/hmg-2010.html#5c.

Figure 7.3: Map of NH Acute Care and Specialty Hospitals