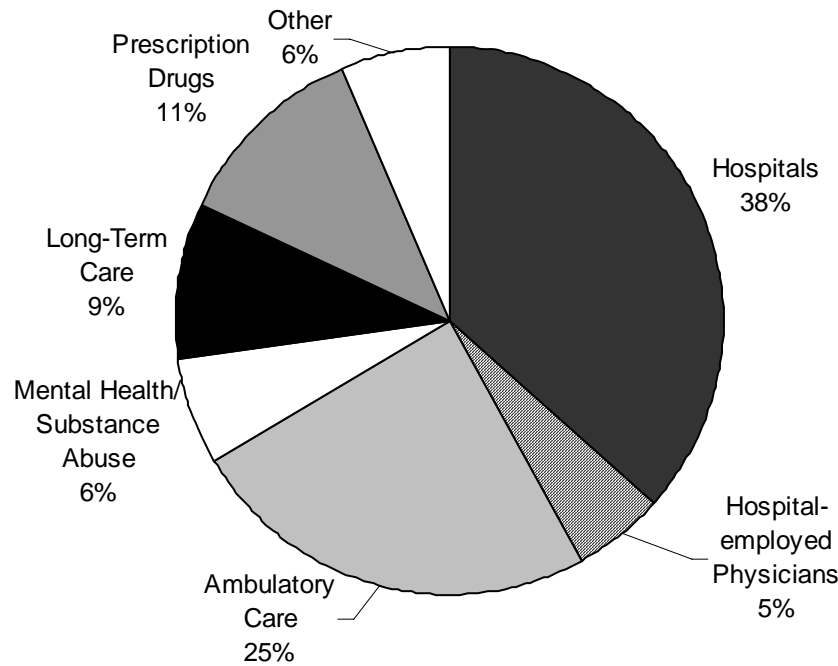


CHAPTER ONE

General Overview

Distribution of \$4.2 Billion in 2007 Vermont Provider Health Care Expenditures¹



INTRODUCTION

I. WHAT IS THE HRAP?

In 2003, as part of a broad health care reform effort, the Legislature mandated the Health Resource Allocation Plan. This section describes the legislative mandate and the Department of Banking, Insurance, Securities and Health Care Administration's (BISHCA) defined purpose of the HRAP.

¹ See the *2007 Vermont Health Care Expenditure Analysis & Three-Year Forecast* for details. Expenditures are for health care provided by Vermont providers to both in-state and out-of-state residents. Mental Health & Substance Abuse (MH/SA) includes only Government Health Activities Medicaid MH/SA spending for presentation purposes. Other MH/SA spending is captured in the other categories. The "Other" category includes retail sales of durable and non-durable medical products, revenues for optometrists and opticians, miscellaneous Medicaid health care spending, and costs for health care services not specified elsewhere.

A. Legislative Mandate

18 V.S.A. § 9405 requires that the HRAP include a statement of principles reflecting specified legislative policies, an inventory of specified health care resources and recommendations for appropriate supply and distribution of those resources.

The legislatively mandated principles are included at the beginning of this document. These principles capture a three-pronged approach to health care in Vermont: quality, cost effectiveness, and universal access. Often, these goals are hard, if not impossible, to achieve together. However, by keeping all three goals in mind through an emphasis on the Institute for Healthcare Improvement Triple Aim (discussed below in Section III D), it is hoped that the health care system will continue to evolve in a manner that brings Vermont closer to its legislatively stated goals.

As noted, the HRAP legislation requires an inventory of specified services: hospital, nursing home, and other inpatient services; home health and mental health services; treatment and prevention services for alcohol and other drug abuse; emergency care; ambulatory care services, including primary care resources, federally qualified health centers, and free clinics; major medical equipment; and health screening and early intervention services.² The 2009 HRAP contains an inventory of these services as well as other categories which are appropriate in light of the State's overarching policy goals.

Finally, the enacting legislation requires that the HRAP contain recommendations for the appropriate supply and distribution of health care services, as well as options for implementing such recommendations.³ These recommendations are to take a variety of sources into account including: the 2005 State Health Plan drafted by the Vermont Department of Health; the needs of the Vermont population and the migration patterns of Vermonters and those from out-of-state for the delivery of health care services; the costs and cost impact of the provision of services; hospital budgets; and the BISHCA's four year hospital expenditure reports. BISHCA considered all of these sources, as well as received input from a variety of stakeholders in the creation of the 2009 HRAP. Implementation options included in this document are ideas for future discussion; we recognize that not all of the implementation options contained herein can (or should) be undertaken. It is our hope, however, by making some specific suggestions that the dialogue will advance Vermont's health care allocation priorities and goals.

B. Purpose of the HRAP

In preparing the 2009 HRAP, BISHCA surveyed stakeholders regarding the purpose of the HRAP. It became apparent that there were different views of how the HRAP could be used, as well as its primary purpose. For this reason, BISHCA developed a policy statement that defines the use of this document.

² 18 V.S.A. § 9405(b)(1)(B).

³ 18 V.S.A. § 9405(b)(1)(C).

The 2009 HRAP shall:

- Contain current inventory information for those services mandated by statute and other services which are deemed important;
- Be user friendly – comprehensive, but specific and organized;
- Introduce new science, technology, standards and benchmarks to support regulatory functions;
- Introduce new ideas and policy considerations for feedback and further discussion, while recognizing that the healthcare system is complex and dynamic and that not all challenges can be addressed through a single document;
- Be a resource document for state policymakers and for those involved in the certificate of need process; and
- Provide source material for the public, health care providers and others interested in Vermont’s health care system.

The HRAP does not tackle the issue of financing health care delivery. How we can and should finance our health care system – through private health insurance, publicly funded programs and out of pocket – is a complex issue and beyond the scope of this document. However, we understand that health care delivery does not happen irrespective of financing and we consistently have attempted to focus on the reality that availability of resources is a key factor in any health care resource allocation decision making. Much important work is being done in Vermont around the issue of financing our health care.⁴ Additionally, as this HRAP goes to press, it is believed that the federal government may be poised to take significant action addressing health care access and financing.⁵

II. INVENTORY OVERVIEW

The Vermont Health Care Provider Services Inventory below provides an overall context to health care services and spending in Vermont. The services and spending shown in the table are for services provided to both Vermont residents and non-residents receiving health care in the state. Total Vermont health care provider spending totaled

⁴ See E.K. Wicks, “Merging the Individual, Small-Group, and Association Markets in Vermont,” Report to the Vermont Commission on Health Care Reform (January 2009), at <http://www.leg.state.vt.us/CommissiononHealthCareReform/VT%20Merger%20Final%20Report%201-09.pdf> (accessed June 2, 2009); Vermont Commission on Health Care Reform, “Introduction to Public Financing in Health Care,” (December 2008), at http://www.leg.state.vt.us/CommissiononHealthCareReform/Introduction_to_Public_Financin.pdf (accessed June 2, 2009); N. Rockler and T. Kavet, “Health Care Financing Analysis – Executive Summary and Technical Appendices,” Report to Vermont Commission on Health Care Reform (March 5, 2007), at <http://www.leg.state.vt.us/CommissiononHealthCareReform/Memo-Health%20Care%20Financing%20Review%20-%20Final%20Draft%20031307.pdf> (accessed June 2, 2009); S. Besio, “Vermont Health Care Reform: Five-Year Implementation Plan,” (December 1, 2006).
⁵ See, e.g. Editorial, “The Year for Health Care,” *The San Francisco Chronicle*, May 17, 2009, at <http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2009/05/16/ED4G16HTP5.DTL> (accessed May 18, 2009).

\$4.2 billion in 2007, with Vermont's fourteen community hospitals accounting for \$1.6 billion (38%) of the total.

Table 1.1: Vermont Health Care Provider Services Inventory

Provider Services	HRAP Chapters	2007 Expenditures (in millions)	Facilities / Establishments	Utilization 1	Utilization 2	Comments
Community Hospitals - Inpatient	Hospital Mental Health	\$592.1	14 not-for-profit hospitals	1029 acute inpatient beds	48,275 inpatient admissions	Some hospitals have nursing homes beds, Rehab beds, and/or nursery beds.
Community Hospitals - Outpatient & ER	Hospital Ambulatory Care Mental Health	\$986.0	Same as above	2.6 million outpatient visits	277,409 ER visits 75,602 OR procedures 6.2 million lab tests	Other outpatient services encompass many different services, including MRI procedures, CT scans, and diagnostic radiology procedures.
Hospital-Employed Physicians	Hospital Ambulatory Care	\$216.7 (included in hospitals)	8 of 14 community hospitals employ physicians	1.2 million physician office visits		Employed physicians now include those besides ER physicians and anesthesiologists.
Veterans Administration Medical Center	Hospital Ambulatory Care Mental Health	\$117.4	1 hospital 4 outpatient clinics (1 in NH)	60 inpatient beds	2421 inpatient admissions	
Vermont State Hospital	Hospital Mental Health	\$19.6	1 hospital (Waterbury)	54 inpatient psychiatric beds	335 inpatient admissions	
Brattleboro Retreat	Hospital Mental Health	\$33.0	1 hospital (Brattleboro)	149 beds of which 45 are adult psychiatric beds	2105 inpatient admissions	
Physician	Ambulatory Care Mental Health	\$571.9	8 Federally-Qualified Health Centers and FQHC "look-alikes" 14 Rural Health Clinics 11 free care clinics			Besides the facilities listed to the left, physicians also operate out of individual practices.
Nursing Home	Long-Term Care	\$227.0	42 nursing homes	3,340 beds	92% occupancy rate	
Home Health	Long-Term Care	\$97.6	12 Medicare-certified home health agencies			
Drugs	No chapter	\$479.8		7.9 million prescriptions filled		Includes drugs purchased by prescription at retail pharmacies. Does not include mail order prescriptions.
Dental	Ambulatory Care	\$227.2	303 "establishments" 355 dentists			"Establishments" are Vermont 2002 employer and 2006 nonemployer firms from the U.S. Economic Census.
Other Professional	Ambulatory Care	\$174.8				Includes chiropractors, physical therapists, psychologists, podiatrists, and other health care professionals not specifically identified.
Major Medical Equipment (MME)	Hospital	Costs included in hospital spending above	Various equipment at the 14 community hospitals and the VA hospital	See MME section in Chapter 3 for equipment counts	42,913 MRI procedures 130,883 CT scans (community hospitals only)	Some equipment is fixed and some is mobile.
Emergency Medical Services (EMS)	Hospital Ambulatory Care	Some costs are included in hospital ER spending	14 hospital emergency departments 89 ambulance svcs. 92 first responder svcs.	>75,000 EMS responses		Helicopter air ambulance services are available to Vermonters through Dartmouth-Hitchcock Medical Center in New Hampshire.
Mental Health & Substance Abuse	Mental Health & Substance Abuse	Costs included within the other categories	5 "designated" hospitals 10 community mental health centers	182 psychiatric beds 20 substance abuse crisis beds	4745 mental health or substance abuse hospitalizations	Much of this spending is under Government Health Activities.
Government Health Activities	Mental Health Long-Term Care Ambulatory Care Other	\$478.9				Includes expenditures for primarily mental health and other direct care programs administered by the Vermont Agency of Human Services. See the 2007 Vermont Health Care Expenditure Analysis for more detail.
Vision, DME, supplies, other, unclassified	No chapter	\$170.7				Includes retail sales of durable and non-durable medical products, revenues for optometrists and opticians, and costs for health care services not specified elsewhere, such as college and public school health services.
TOTAL		\$4,176.0				

Also see the *2007 Vermont Health Care Expenditure Analysis & Three-Year Forecast* or contact BISHCA for details.

More reliable data is available for certain health services, such as data relating to community hospitals. Others, such as dental services, have no direct reporting obligations, so BISHCA estimates spending based on available data. It is important to note that many provider services are referenced in more than one chapter because they can be examined in different ways. For example, mental health services and spending are included in some form in all the chapters due to the broad nature of how and where mental health care is delivered.

BISHCA continues to refine its data collection and reporting of provider services. The annual *Vermont Health Care Expenditure Analysis & Three-Year Forecast* is an example of this ongoing effort to understand Vermont's health care system, primarily from the financial perspective. By examining existing and historical health care provider resources and utilization, this HRAP attempts to further our understanding of Vermont's health care services to help guide future resource allocation and planning.

III. OVERARCHING POLICY ISSUES

A. Vermont State Health Plan

By statute, the Vermont State Health Plan is a guiding document in the preparation of this HRAP. The Vermont State Health Plan was produced by the Vermont Department of Health in 2005. Thus, some of the issues highlighted in that document are not as relevant today or the policy focus has shifted. However, much remains relevant. The State Health Plan defines five key policy areas: prevention as a priority, access to care, quality of care, accountability and transparency, and integrated health information system.⁶ These policy areas remain as key guiding principles in this 2009 HRAP.

A recurring theme throughout Vermont's health care reform efforts is the tension between allowing the free market to encourage efficiencies and eliminate waste in the health care delivery system and, on the other hand, the belief that health care is not like other industries and that a more regulatory, central planning approach is appropriate. The State Health Plan suggests that Vermont is too small to sustain a health care system based solely on free market principles.⁷ The ideological debate between market forces and government oversight is not likely to be resolved. In this document, we acknowledge that health care is not like other markets in the sense that certain services must be

⁶ Vermont Department of Health, "Vermont State Health Plan 2005," (2005), at pages 4-5.

⁷ Vermont Department of Health, "Vermont State Health Plan 2005," (2005), at page 27. "With the exception of more urban locations, effective competition does not exist in much of the state. * * * In general, however, the Vermont population is probably too small and too rural to sustain a competitive market among larger health institutions."

purchased without an opportunity for choice (such as emergency services) and that, realistically, the average consumer often lacks adequate information to make many of the most important decisions. This can be true even if the information is readily available. The average person will not always be sufficiently equipped to appreciate and understand the myriad of important nuances in much of the medical science underlying the decision making process.

That said, we believe there is a very important place to encourage and harness the positive aspects of free market forces in health care. We believe that these forces can be utilized to promote the goals of the state, specifically having a high quality, cost efficient health care delivery system. The obstacle we struggle with today is that many market forces under which health care providers operate motivate behavior that is not aligned with overarching health care policy goals. Policymakers, both in this state and nationally, must examine ways in which the creative forces of market innovation can be harnessed to encourage a healthier population within the context of a more sustainable system cost structure.

B. Maximizing the Utilization of Effective Health Care

For many years, Jack Wennberg, Elliot Fisher, and their colleagues at the Dartmouth Institute for Health Policy and Clinical Practice⁸ (TDI) have documented the variation in health care spending across geographic regions.⁹ Consistently, high spending regions have not been shown to lead to better health outcomes.¹⁰ In 2009, the Vermont Legislature and the Governor instructed BISHCA to examine statewide health care utilization variation with the goal of identifying inappropriate variations and recommending potential strategies to reduce overall health care cost increases by minimizing over-utilization and identifying under-utilization.¹¹

Wennberg, et al. have divided health services into three general categories. They are effective care, preference sensitive care and supply sensitive care. Effective care refers to care which has been shown through randomized trials to result in better health outcomes.¹² Preference sensitive care refers to elective procedures which have both benefits and risks and where patient preference should determine the final choice for treatment.¹³ Finally, supply sensitive care is discretionary care that is provided more

⁸ TDI was formerly the Center for Evaluative Clinical Sciences.

⁹ See, e.g., J.E. Wennberg, "Practice Variations and Health Care Reform: Connecting the Dots," *Health Affairs* (2008): 140-144 (published online October 7, 2004), and sources cited therein.

¹⁰ See, e.g., M.B. Landrum, et al., "Is Spending More Always Wasteful? The Appropriateness of Care and Outcomes Among Colorectal Cancer Patients," *Health Affairs* 27, no.1 (2008): 159-168. Landrum, et al. found that, in relation to colorectal cancer, high spending regions tended to more consistently provide effective care, but this tendency was outweighed by the greater likelihood of delivery of discretionary or non-recommended care, sometimes leading to adverse outcomes for patients.

¹¹ An Act Relating to Containing Health Care Costs, Act No. 49 (2009 Session).

¹² E.Fisher, et al., "Health Care Spending, Quality and Outcomes," *Dartmouth Atlas Project Topic Brief* (February 27, 2009), at http://www.dartmouthatlas.org/atlas/Spending_Brief_022709.pdf (accessed May 18, 2009), at page 2. See, also the 2005 HRAP at page xxxiv, discussing "appropriate care."

¹³ "Health Care Spending, Quality and Outcomes," at page 2.

frequently when a population has a higher per capita supply of a specific medical resource.¹⁴ For example, research shows that availability of more hospital beds in a certain area is directly correlated to more hospital bed usage, even when other care may be more appropriate.¹⁵ Thus, it appears the existence of more health care delivery system capacity leads to the delivery of more services. Furthermore, research shows that the increase in services does not lead to improved health outcomes.¹⁶ This research is vitally important to health resource allocation decision making, particularly in the area of supply sensitive care.

Consistent with this research, there is a growing concern that Americans (and Vermonters) use too many health care services without a corresponding health benefit. In her book, *Overtreated*, Shannon Brownlee details how our health care system contains numerous systemic flaws which permit and encourage the over-utilization of high cost, high technology services.¹⁷ Brownlee asserts that not only does this over-utilization lead to ever increasing health care costs, but it also is bad for our health. Brownlee points to various common services, such as diagnostic imaging, invasive heart treatments and the use of new expensive pharmaceuticals¹⁸ where evidence indicates the costs are not justified by the outcomes. Brownlee argues that our current system has inadequate controls and oversight to limit the over-utilization of unnecessary and sometimes harmful health care services.

Brownlee highlights a key shortcoming in the health care delivery system, specifically the lack of consistently utilized evidence based medicine. Much discussion about health care reform focuses on the struggle of implementing evidence based medical practice in the U.S.¹⁹ This is not just an issue of physicians and other health care providers failing to utilize evidence, but often is a function of the information not being readily available or the analysis having never been undertaken.

As this HRAP goes to press, the federal American Recovery and Reinvestment Act (ARRA) has recently been signed into law. Included among the many projects funded, the ARRA provided \$1.1 billion for comparative effectiveness research (CER). This includes \$300 million for the Agency of Healthcare Research and Quality, \$400 million for the National Institutes of Health, and \$400 million for the U.S. Secretary of

¹⁴ “Health Care Spending, Quality and Outcomes,” at page 2.

¹⁵ D.C. Goodman, et al., “Hospital and Physician Capacity Update,” *Dartmouth Atlas of Health Care* (March 30, 2009), at page 10. Of some interest, this report shows Vermont’s hospital bed capacity as measured against its population on the lower end compared to other regions. However, Vermont’s hospital based nurses and acute care hospital employee numbers are either in the top or second top tier. Vermont is also in the highest or second highest category for increases in such staffing from 1996 to 2006.

¹⁶ J.E. Wennberg, “Inpatient Care Intensity and Patients’ Ratings of their Hospital Experiences,” *Health Affairs* 28, no. 1 (2009): 103-112.

¹⁷ Shannon Brownlee, *Overtreated: Why Too Much Medicine is Making Us Sicker and Poorer*, (New York: Bloomsbury, USA, 2007).

¹⁸ For a similar analysis of the U.S. pharmaceutical development and delivery system, see John Abramson, MD, *Overdosed America*, (New York: Harper Collins Publishing, Inc., 2004).

¹⁹ K. Chalkidou, et al., “Evidence-Based Decision Making: When Should We Wait for More Information?” *Health Affairs* 27, no. 6 (2008): 1642-1653.

Health and Human Services to support CER. The ARRA also created a 15-member Federal Coordinating Council for Comparative Effectiveness Research,²⁰ which was directed to submit a report to President Obama on June 20, 2009, outlining current comparative effectiveness activities and containing priorities and recommendations for how CER funds should best be utilized.²¹

Regardless of what one might think about Brownlee's analysis of our current health care system, evidence supports the finding that we are, as a nation, not getting as much for our health care dollars as other industrialized nations. America spends more on health care than any other industrialized nation and yet scores worse in most health care outcomes.²² We support the federal government's attempts to coordinate and facilitate the development of comparative effectiveness research. Health care providers need greater and more reliable access to unbiased science relating to what works and what does not work. This research should inform and guide Vermont's health resource allocation planning and prioritization.

It is important to note that Vermont differs from the nation as a whole in some important ways. For starters, Vermont is consistently ranked as the healthiest or among the healthiest states in the country.²³ Secondly, our health care costs have historically been lower when compared with the rest of New England, although New England health care costs tend to be higher than the U.S. average. Medicare spending per Vermont enrollee is relatively low compared to most other states.²⁴ Of some interest, however, is that Vermont's health care costs have been increasing faster than the national average.²⁵ Finally, Vermont is a small state with a very rural population. When it comes to health resource allocation, our size provides us with some advantages and some unique challenges.

²⁰ The purpose of the Council is "foster optimum coordination of comparative effectiveness and related health services research conducted or supported by relevant Federal departments and agencies, with the goal of reducing duplicative efforts and encouraging coordinated and complementary use of resources." Section 804(b) of the ARRA (2009).

²¹ See the U.S. Health and Human Services website at <http://www.reuters.com/article/healthNews/idUSTRE4B276H20081204>, (accessed May 18, 2009).

²² G.F. Anderson and B.K. Frogner, "Health Care Spending in OECD Countries: Obtaining Value," *Health Affairs* 27, no. 6 (2008): 1718-1727.

²³ See, e.g., the 2009 rankings of the American Public Health Association and the Partnership for Prevention, at <http://www.reuters.com/article/healthNews/idUSTRE4B276H20081204> (accessed May 18, 2009).

²⁴ E. Fisher, et al., "Health Care Spending, Quality and Outcomes: More Isn't Always Better," *Dartmouth Atlas Project Topic Brief* (February 27, 2009), at http://www.dartmouthatlas.org/atlas/Spending_Brief_022709.pdf (accessed June 5, 2009).

²⁵ Vermont Department of Banking, Insurance, Securities, and Health Care Administration, "2007 Vermont Health Care Expenditure Analysis & Three Year Forecast," (February 2009), at page 12. See also A.B. Martin, et al., "Health Spending By State of Residence, 1991-2004," *Health Affairs* 26, no. 6 (2007): w651-w663 (published online September 18, 2007). This report shows Vermont as experiencing the highest rate of growth in the nation from 1998-2004 at 9.4%. Note that BISHCA data analysis may differ.

Thus, as we look forward and examine our health care utilization and expenditure patterns, we must remember that Vermont is unique and may face a somewhat different set of challenges and opportunities than the nation as a whole.

C. Payment Reform

There is a great deal of pressure on health care providers to deliver more cost effective, higher quality care. Yet, the result of achieving high quality, less invasive care may be a loss in revenue. For example, in Minnesota, the St. Mary's/Duluth Clinic instituted a program that reduced hospital readmissions for patients with congestive heart failure to 3 to 4% (the state average is 20-25% and the national average is 40-50%). The low rate of readmissions improved patient health and satisfaction by delivering outpatient services including treatment planning, disease and medication management services, telescales and telephonic oversight, education for patients and relatives and support groups. Overall costs for patient care were reduced by half. Yet, the program caused a major loss of revenue for the health system due to uncompensated services and the decreased volume.²⁶ Payment reform must address the current incentives to expand capacity and increase overall volume of services.²⁷

Until meaningful payment reform is implemented, comprehensive health care reform will struggle.²⁸ Health care providers are most often compensated by volume under current fee for service payment systems.²⁹ The “fee-for-service (FFS) payment system gives doctors powerful financial incentives to do more (and more costly) procedures, which may not be in the patients’ best interests, financially or clinically.”³⁰ Others argue that current reimbursement systems reward a fragmented system of tests and high cost procedures and fail to adequately reward coordinated, lower cost and more effective health services.³¹ Additionally, many of the reform efforts related to data

²⁶ Robert Wood Johnson Foundation, “Charting a Course: Preparing for the Future, Learning from the Past,” *State of the States* (January 2009), at page 59. See also Shannon Brownlee, *Overtreated: Why Too Much Medicine is Making Us Sicker and Poorer*, (New York: Bloomsbury, USA, 2007), at page 86, detailing how a program at Duke University aimed at improving heart failure patients health status caused the hospital to lose money.

²⁷ E. Fisher, et al., “Health Care Spending, Quality, and Outcomes,” *Dartmouth Atlas Project Topic Brief* (February 27, 2009), at page 4. “To slow the growth of health care spending, payment reform must foster global accountability for the quality and overall costs of care for patients.”

²⁸ See, e.g., MedPac, “Improving Incentives in the Medicare Program,” (June 2009), at http://www.medpac.gov/documents/Jun09_EntireReport.pdf (accessed June 17, 2009). Although see C.N. Kahn, “Payment Reform Alone will not Transform Health Care Delivery,” *Health Affairs* 28, no. 2 (2009): w216-w218 (published online January 27, 2009). Kahn notes that past payment reform efforts have largely failed because they lacked corresponding clinical organizational and cultural changes.

²⁹ Healthcare Cost and Utilization Project, “Medicare Hospital Stays: Comparisons between the Fee-for-Service Plan and Alternative Plans, 2006,” *Statistical Brief* No. 66 (January 2009), at <http://www.hcup-us.ahrq.gov/reports/statbriefs/sb66.pdf> (accessed March 9, 2009). This report indicates mixed results comparing intensity of utilization across fee for service and capitated (typically Medicare Advantage plans) Medicare plans.

³⁰ A.C. Enthoven and L.A. Tollen, “Competition in Health Care: It Takes Systems to Pursue Quality and Efficiency,” *Health Affairs* 24 (2005): w420-w433 (published online September 7, 2005), at page w422.

³¹ See, e.g., D. Cortese and J.O. Korsmo, “Health Care Reform: Why We Cannot Afford to Fail,” *Health Affairs* 28, no. 2 (2009): w173-176 (published online January 16, 2009).

reporting, coordinated care and quality improvement potentially involve more work for health care providers without compensation. These issues must be addressed. Payment reform should not increase overall systems costs,³² but rather should align payment with the value of services provided.

Health care payment systems are incredibly complex. For example, take the concept of “diagnostic related groups” (DRGs), a payment system initially implemented by Medicare which compensates providers based on primary diagnosis and major procedures. This system, originally implemented in 1983, was intended to encourage hospitals to maximize efficiency and has been successful in doing so in certain situations.³³ However, there are currently at least a half a dozen different DRG algorithms, with major differences among them, used by different payers.³⁴ Reforming these complex systems is not easy and will involve an enormous amount of high quality resources. However, it can be done and it is necessary for successful change. Payment reform, both in our commercial and publicly funded markets, should be one of Vermont’s highest health care reform priorities.

As noted, Vermont faces specific challenges related to the relatively small size of its health care delivery system.³⁵ Some have argued that only large integrated health care delivery systems, such as Kaiser Permanente or Geisinger Health System, can effectively control costs and integrate care appropriately and efficiently across all providers.³⁶ Payment reforms will need to take the unique nature of Vermont’s health care delivery system into account.

D. Institute for Healthcare Improvement Triple Aim

The enacting legislation requires that the HRAP contain a statement of principles.³⁷ The legislatively declared principles are included at the beginning of this document. These principles evidence a three prong approach to health care in Vermont: quality, cost effectiveness and universal access. In the 2005, the HRAP identified the Institute of Medicine’s Aims: that health care be safe, effective, patient-centered, timely, efficient and equitable.³⁸ However, since 2005, the shortage of available resources for health care services in Vermont (and nationally) has become more urgent. Further, in the certificate of need process, the IOM Aims sometimes fail to provide an adequate framework for evaluating new health care projects. As such, we concluded that the

³² See, e.g., J.P. Newhouse and the Insurance Experiment Group, *Free for All? Lessons from the RAND Health Insurance Experiment* (Cambridge, Mass: Harvard University Press, 1994), finding that prepaid group practices had 25-30 percent lower per capita costs than in fee-for-service practices.

³³ K. Quinn, “New Directions in Medicaid Payment for Hospital Care,” *Health Affairs* 27, no. 1 (2008): 269-280, at n. 7, citing R.F. Coulam and G.I. Gaumer, “Medicare’s Prospective Payment System: A Critical Appraisal,” *HealthCare Financing Review Annual Supplement* 12 (1991): 45-77.

³⁴ K. Quinn, “New Directions in Medicaid Payment for Hospital Care.”

³⁵ Vermont Department of Health, “Vermont Rural Health and Primary Care Plan,” (January 2009), at pages 9 –12, noting that many standards of care are based on urban, large scale studies and models.

³⁶ “Competition in Health Care: It Takes Systems to Pursue Quality and Efficiency,” (2005).

³⁷ 18 V.S.A. § 9405(b)(1)(A).

³⁸ 2005 HRAP at page xxxi.

Institute of Healthcare Improvement (IHI) “Triple Aim” constituted a more appropriate framework with which to analyze certificate of need applications and health resource allocation in general.

The three IHI Triple Aims are: improving the individual experience of care, improving the health of populations, and reducing the per capita costs of care for populations.³⁹ Often, these goals are difficult to achieve together and pursuing one goal can impact the success of the other goals. However, by keeping all three goals in mind, health care resource decisions can seek to maximize each goal in balance with the others.

An important aspect of the IHI Triple Aim is the emphasis on population health, as opposed to individual health. Although it is vitally important that individuals have access to the highest quality health care, it also important that Vermont, and America, begin investing in health care resources in a manner which maximizes the overall return on that investment. As we discuss the health care resources in Vermont, this HRAP seeks to expand on the IHI Triple Aim in assessing the current allocation of resources and suggesting future allocation.

However, it important to note that the ideal implementation of the Triple Aim likely requires a more coherent system than Vermont’s current system. For example, effective accomplishment of the Triple Aim requires an “integrator” – an entity that accepts responsibility for all three components of the Triple Aim for a specified population.⁴⁰ Examples of possible integrators could include an insurer with a sense of needs of the community it serves, a large primary care group practice that establishes appropriate partnerships with payers, or a hospital offering services through its physician owned organization.⁴¹

It is possible ACOs could prove to be a successful integrator. Vermont does not currently have an obvious “integrator” for any specified population. Examples of successful integrators exist in the United States⁴² and as Vermont moves forward, the concept of an integrator could be an idea worth examining to facilitate the implementation of health resource goals. The Vermont Commission on Health Care Reform, along with BISHCA, is currently examining the accountable care organization model as a potential means of enhancing the overall dynamics of our health care delivery system.⁴³

³⁹ D.M. Berwick et al., “The Triple Aim: Care, Health and Cost,” *Health Affairs* 27, no. 3 (2008): 759-769, at 760.

⁴⁰ “The Triple Aim: Care, Health and Cost,” (2008) at page 763.

⁴¹ Institute for Healthcare Improvement, “Best Health Care Results for Populations: The ‘Triple Aim,’” *Technical Brief* (June 28, 2007), at page 4.

⁴²For example, CareOregon (a Medicaid managed care plan uses the Oregon Health Plan as the integrator). See Institute for Health Improvement, “Pursuing the Triple Aim: CareOregon,” (November 2008), at <http://www.ihl.org/NR/rdonlyres/2643EDBF-032F-470C-8D9C-AB0B598B491F/0/IHITripleAimCareOregonCaseStudyDec08.pdf> (accessed June 4, 2009).

⁴³ An Act Relating to Health Care Reform, Act No. 203 § 2 (2007 Adj. Sess.) (directing the Commission on Health Care Reform to study the accountable care organization); An Act Relating to Containing Health

This HRAP seeks to incorporate principles of the Triple Aim through the recommendations and certificate of need standards contained herein. As the Vermont health care system evolves, it is hoped that these three goals are key factors included in resource allocation and health care system development.

IV. HRAP Changes and Limitations

A. Health Information Technology

Health information technology (HIT) is a key component of any health care reform or resource allocation decision. The Commonwealth Fund Commission on a High Performance Health System estimates that the investment of 1% of health insurance premiums in health information technology could save the country \$88 billion over ten years of the projected national health expenditures totaling \$4.4 trillion.⁴⁴ The American Recovery and Reinvestment Act was signed into law by President Obama on February 19, 2009 and contains \$19.2 billion in spending on health information technology.⁴⁵ In order to have a higher functioning, more integrated care delivery system, health care providers must have greater and more streamlined access to data that can only be provided through the expansion of integrated health information technology.

The 2005 HRAP contained an entire chapter on health information technology. We did not include a separate chapter on HIT in the 2009 HRAP. We made this decision for several reasons, most notably because the Vermont Health Information Technology Leaders (VITL) have done much work in this area and it was felt that the HRAP would simply be duplicative. However, it is important to recognize that virtually all health care reform measures, including those focused on quality improvement and those focused on cost containment, have a vital HIT component. Vermont's Health Information Technology Plan⁴⁶ recognizes this and is a good resource for those interested in focusing more specifically on HIT.

B. Workforce Needs

The original HRAP contained a stand-alone chapter on the health care provider workforce. This HRAP does not. This does not mean that the workforce pressures faced by certain segments of the health care provider community have abated. In fact, in certain areas, shortages have become more acute since 2005. The health care delivery workforce is the backbone of the entire system and without these dedicated individuals,

Care Costs, Act No. 49 § 6 (2009) (directing the Commission on Health Care Reform to seek the development of an application in an ACO pilot program).

⁴⁴ Robert Wood Johnson Foundation, "Charting a Course: Preparing for the Future, Learning from the Past," *State of the States* (January 2009), at page 59.

⁴⁵ American Health Information Management Association, "Health Care Reform and Health IT Stimulus: ARRA and HITECH," at <http://www.ahima.org/arra/> (accessed June 4, 2009).

⁴⁶ Available at <http://www.vitl.net/interior.php/pid/7> (accessed June 4, 2009).

there is no health care delivery. As such, this HRAP discusses this issue throughout the document, integrating workforce issues into discussions about specific types of services and how specific shortages may impact health care quality and access.

One of our primary recommendations is that Vermont centralizes its healthcare workforce planning. As discussed in Chapter 2, there are numerous state efforts to identify and address various workforce shortages. However, it is not clear that Vermont's efforts are sufficiently coordinated, nor that as a state we are assessing and planning for our future needs. Government funding for medical education has a direct impact on health care workforce, yet there is no systematic and centralized way to identify and fill the State's needs on a population based level. A more cohesive approach to the health care delivery workforce is an imperative component of any successful health care services allocation plan.

C. Data Limitations and Opportunities

Vermont has a variety of health data resources with which to measure and evaluate the supply, distribution, and cost of health care services in Vermont. The Vermont Uniform Hospital Discharge Data Set (VUHDDS) has evolved over the last three decades to include resident and non-residents records from Vermont hospitals for inpatient, emergency department, and outpatient discharges. Through interstate agreements, Vermont receives hospital discharge records for Vermont residents who received hospital services in New Hampshire, New York and Massachusetts (the three states that account for the bulk of the out-migration for hospital care). Typically, these hospital discharge records capture the most costly and complex health services. The strength of the hospital discharge data is that it includes detailed information on patient demographics and diagnoses and procedure coding. The hospital data also includes persons who are uninsured, in addition to insured patients, so it captures the entire universe of hospital utilization for Vermont residents. However, this rich dataset is limited to hospital provided care.

In 2008, through the legislatively mandated Vermont Healthcare Claims and Utilization Reporting and Evaluation System (VHCURES), BISHCA began collecting eligibility and claims data from commercial insurers in a standard format from licensed carriers, third party administrators, and pharmacy benefit managers. Although presently confined to the privately insured population, VHCURES collects and analyzes information on all reimbursed health care services, including office visits and prescription drugs that has not previously been available.

We anticipate adding eligibility and claims data for the Medicaid and Medicare populations to VHCURES in the near future, pending the approval of the Agency of Human Services for Medicaid and the federal Centers for Medicare and Medicaid Services. At that point, only care delivered to the uninsured will be absent from the database. For this population, the state can estimate hospital-based utilization based on

VUHDDS⁴⁷. In addition to VHCURES supporting special studies of utilization, patterns of care, cost, and quality for the insured population, BISHCA will be regularly publishing a series of standard reports on utilization and paid claims costs for the insured. Incorporating principles of population based analysis. This expansion of our data capability should greatly enhance our ability to understand Vermont's health care system and inform future policy decisions.

V. CERTIFICATE OF NEED

For the most part, by design, the HRAP is an advisory document. BISHCA has little regulatory authority over many of the recommendations and implementation options contained herein. However, in one significant area, the HRAP has the power of law.⁴⁸ Vermont law requires that all new health care projects, as that term is defined by statute, obtain from BISHCA a certificate of need (CON) prior to implementation. As noted in the Statement of Principles, the certificate of need program is intended to ensure that health care projects avoid unnecessary duplication, contain or reduce the increases in the cost of health care delivery, while at the same time maintaining and promoting quality of health care services.⁴⁹ To that end, all new health care projects which fall within certain jurisdictional parameters are subject to review and assessment by BISHCA and the Public Oversight Commission.

An entity seeking to offer or develop a new health care project must show that such project is consistent with the current HRAP. The 2005 HRAP contained numerous CON Standards.⁵⁰ Some of these were general in nature and some were very specific. It was felt by some stakeholders that these Standards required too much duplicative information that ultimately made it difficult for those preparing applications to focus on the most important aspects of a certain project. Generally, it was felt that service specific guidance in the HRAP would serve a more useful purpose. Thus, throughout this HRAP BISHCA has adopted numerous service specific CON Standards which are denoted by a specific symbol (◆). In this section, we have included some general standards which may apply across health care service types. As with the previous HRAP, not all standards will apply to all applications.

⁴⁷ Several states have proposed or enacted legislation requiring providers to submit "pseudo" claims for the uninsured to enable monitoring of non-hospital-based ambulatory care and prescription drug use.

⁴⁸ Note also that hospital budgets must be consistent with the HRAP. 18 V.S.A. § 9456(c). Hospital budgets may be adjusted upon a showing of need and consistent with this HRAP and current BISHCA rules. 18 V.S.A. § 9456(g).

⁴⁹ For a discussion of the various regulatory approaches to the certificate of need program in Vermont, see the 2005 HRAP at pages 44-45.

⁵⁰ 2005 HRAP at pages 333-345.

The general CON standards are provided below:

- ◆ **CON STANDARD 1.1:** Applicants shall include published BISHCA quality measures for services related to a specific application, for the applicant and other hospitals that report on that quality measure. The applicant shall demonstrate how the project will improve or assist in the improvement of the relevant quality measures, if the applicant's score is not above the national or the Vermont average.
- ◆ **CON STANDARD 1.2:** Applicants seeking to expand or introduce a specific health care services shall show that such services have been shown to improve health. To the extent such services have been the subject of comparative effectiveness research, an applicant shall show that the results of this research support the proposed project.
- ◆ **CON STANDARD 1.3:** To the extent neighboring health care facilities provide the services proposed by a new health care project, an applicant shall demonstrate that a collaborative approach to delivering the service has been taken or is not feasible or appropriate.
- ◆ **CON STANDARD 1.4:** If an application proposes services for which a higher volume of such service is positively correlated to better quality, the applicant shall show that it will be able to maintain appropriate volume for the service and that the addition of the service at the facility will not erode volume at any other Vermont facility in such a way that quality at that facility could be compromised.
- ◆ **CON STANDARD 1.5:** If an applicant seeks to expand services in a region, or at a facility, which data shows has a statistically significant inappropriate health care service utilization variation, the applicant shall explain how the applicant's proposed project will improve the variation.
- ◆ **CON STANDARD 1.6:** Applicants seeking to develop a new health care project shall explain how the applicant will collect and monitor data relating to health care quality and outcomes related to the proposed new health care project. To the extent practicable, such data collection and monitoring shall be aligned with related data collection and monitoring efforts, whether within the applicant's organization, other organizations or the government.
- ◆ **CON STANDARD 1.7:** Applicants seeking to develop a new health care project shall explain how such project is consistent with evidence-based practice. Such explanation may include a description of how practitioners will be made aware of evidence based practice guidelines and how such guidelines will be incorporated into ongoing decision making. (2005 State Health Plan, page 48.)

- ◆ **CON STANDARD 1.8:** Applicants seeking to develop a new health care project shall demonstrate, as appropriate, that the applicant has a comprehensive evidence-based system for controlling infectious disease.
- ◆ **CON STANDARD 1.9:** Applicants proposing construction projects shall show that costs and methods of the proposed construction are necessary and reasonable. Applicants shall show that the project is cost-effective and that reasonable energy conservation measures have been taken.
- ◆ **CON STANDARD 1.10:** Applicants proposing new health care projects requiring construction shall show such projects are energy efficient. As appropriate, applicants shall show that Efficiency Vermont, or an organization with similar expertise, has been consulted on the proposal.
- ◆ **CON STANDARD 1.11:** Applicants proposing new health care projects requiring new construction shall demonstrate that new construction is the more appropriate alternative when compared to renovation.
- ◆ **CON STANDARD 1.12:** New construction health care projects shall comply with the Guidelines for Construction and Equipment of Hospital and Medical Facilities as issued by the American Institute of Architects (AIA).

VI. NEXT STEPS

Health care delivery and resource allocation are enormous and complex tasks facing this country and Vermont. Vermont has been extremely active in its health care reform efforts and is nationally recognized as a leader in this area. Sometimes our efforts may feel disjointed and overwhelming. However, many of our efforts are aligned and we have achieved and continue to achieve impressive successes. However, continuing to maintain an overall focus on the Triple Aim in each and every new health care project and health care reform initiative will ensure consistency and coherence of vision. We must:

- **Improve the health of Vermont’s population;**
- **Enhance the patient experience, through improved quality and access;**
and
- **Reduce the per capita cost of care.**

The HRAP is intended to be a document to be used to allocate resources across the Vermont health care system. It is premised on establishing the inventory of services, examining access and utilization of those services, and then determining how best to re-deploy those resources in the most effective and efficient manner. However, there are a number of challenges associated with this task. These include the difficulty in measuring certain aspects of the inventory, establishing a sustainable level of resource growth,

finding definitive guidance on appropriate levels of specific services, defining a process for prioritization when extremely difficult choices may be necessary, and developing mechanisms to make resource allocation priorities a reality when faced with a fragmented health care system.

In putting together this HRAP, we began to develop some ideas about how to enhance the concept of a health care resource allocation plan. It is our intention to develop some legislative proposals to refine any future HRAP. For example, obtaining the inventory numbers for this document is currently resource intensive. It is possible we might suggest a more formalized description of the data elements that will form the baseline inventory data for the HRAP and develop streamlined ways to update that inventory on a more real-time basis. We also recognize the awkward nature of BISHCA, with its limited regulatory scope of jurisdiction, suggesting that a variety of other entities undertake labor intensive and difficult work. Although we believe that a document such as the HRAP must have one “owner,” it is possible we will propose formalizing collaborative approaches to developing implementation options and resource priorities.

This document provides a broad inventory of Vermont health care resources, identifies policy questions that need further exploration, suggests various options for addressing outstanding issues where consensus may be difficult to achieve and guides future new health care project planning and development. We know there is much more work to be done and that this HRAP still falls short of our ideals, but we believe that this document, coupled with other health care reform efforts, both in Vermont and nationally, may move health care services towards a cohesive health care system that is effective, equitable, high quality and cost effective.