

## **Can We Have It All?**

### **Balancing Access, Quality, and Cost in Health Care**

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The Vermont Business Roundtable is a non-profit, non-partisan organization of 115 chief executive officers representing geographic diversity and all major sectors of the Vermont economy. The Roundtable is committed to sustaining a sound economy and preserving Vermont's unique quality of life by studying and making recommendations on statewide public policy issues.

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# *Can We Have It All?*

## **Balancing Access, Quality and Cost in Health Care**

### PROLOGUE

#### Case 1

Early in 1995 a young Vermont hospital patient was diagnosed as having an unclassifiable solid tumor, probably a poorly differentiated Sarcoma or Melanoma. He did not respond to conventional treatment and the prognosis was bleak. An Autologous Bone Marrow transplant (BMT) with High Dosage Chemotherapy (HDC) was proposed as a last ditch effort to save him. The patient's insurer initially objected on grounds that the procedure was experimental for that condition, but agreed to pay on appeal.

Unfortunately, the patient died after all treatment efforts failed. The case cost the insurer more than \$280,000.

#### Case 2

A child was diagnosed at birth with a rare blood disorder. During her relatively short lifetime she underwent hundreds of medical interventions in the form of blood transfusions, growth hormones, and eventually bone marrow transplants. At age 8 her health began to fail again and the physicians proposed a cord-blood transplant as a last-ditch effort. The insurer objected to payment, believing that the procedure at best might prolong her life only a year or so. The eight-year-old patient met with the insurer's case managers, saying, "I don't want to die." The procedure was approved and performed and the child lived until age 10. Total medical benefits paid exceeded \$500,000

- Questions:*
- When life is at stake, how much medical care is too much?
  - Should anyone ever be denied everything modern medicine has to offer because of the cost?
  - If we are to make maximum levels of care available to everyone, how can we criticize the medical care system for constantly rising costs?
  - But if costs must be contained, who will decide which patients should receive every available lifesaving service, regardless of cost, and which ones should be left to die?

While questions like these may seem overly dramatic, they epitomize the dilemma facing health care providers, insurers, and policymakers in Vermont and across the nation. The U.S. health care system is the most capable and the most expensive in the world. Responding to public expectations, policymakers try to assure that every citizen has access to high quality and timely health care, while at the same time trying to find ways to bring the seemingly inexorable rise in costs under control.

These conflicting priorities are nowhere more prevalent than in Vermont, as the Legislature discovered in a major study of public attitudes that it commissioned in 1995. Among its findings:

“Vermonters assign a high priority to two conflicting health care goals: extending care to everyone and lowering or containing health care costs.” Moreover, Vermonters’ views about why costs are rising suggest widespread mistrust of the system. Majorities named as major factors ... insurance companies seeking excessive profits, runaway administrative costs, waste, fraud and abuse, doctors who overcharge, and hospitals seeking excessive profits. Even after considering substantial tradeoffs, 88% of Vermonters believe everyone should get the health care they need. There is no consensus on several key issues, such as how to cover the costs.<sup>1</sup>

In a recent journal article Dr. David M. Eddy, one of the nation’s most respected physicians and medical writers, sets forth another view on this dilemma:

“The biggest threat to cost and quality in health care today is ... the wholly unrealistic demand that society has placed on the system as a whole—to maximize quality while minimizing cost.

Because of the mechanisms that society has created for spreading the costs of care—insurance, prepayment, taxes—many of those receiving care are not paying the costs. Thus it is easy for them to say the care they receive should not be limited by any consideration of cost.”<sup>2</sup>

As the health care system tries to respond to the public’s expectation that everyone should have essentially unlimited access to high quality health care, costs continue to escalate, generating criticism and periodic attempts to reform the system, such as was last seen in Vermont during the 1994 legislative session.

There appears to be little understanding of the multiple and complex forces that drive the costs of health care; rather, as the Legislative Commission’s own research points out, the public tends to blame the insurance companies and the providers of care.

Furthermore, the marketplace has developed mechanisms—e.g., a widespread migration to managed care plans—that attempt to diminish demand for care, thus containing costs. But public concerns about perceived limitations on access to care and possibly diminished quality have led to a significant “managed care backlash.”

The result is more regulation and legislative intervention that may undermine attempts to contain cost, even though there is no clear body of evidence that quality or access has been compromised.<sup>3</sup>

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<sup>1</sup> *Hard Choices in Health Care: What Vermonters are Thinking*, March 1997.

<sup>2</sup> David M. Eddy, M.D., “Cost and Quality in Fee For Service vs. Managed Care,” *Health Care Affairs*, May/June 1997, Vol. 16, #3.

<sup>3</sup> For a summary of 68 studies on managed care performance see *Health Care Affairs*, September/October

Recognizing that health care is a complex, valuable, costly, and necessary public resource, the Vermont Business Roundtable's Health Care Task Force<sup>4</sup> began a series of public education papers on health care. The first, published in 1997, discussed the effects of legislatively mandated additions to health care benefits on the cost and availability of health insurance.

This paper explains some of the many factors driving the cost of health care, particularly the public's constantly rising expectations. The Roundtable hopes that better understanding of the issues will lead to more informed solutions, as the debate about health care cost, access, and quality inevitably continues.

## UNDERSTANDING DEMAND

The average citizen probably doesn't think a lot about what the demand for health care has to do with its cost. Moreover, academic discussion of cost drivers such as new technology, availability of health insurance, etc., generally fail to get out of the journals into more accessible media because the language used to discuss such issues makes the average reader's eyes glaze over. In fact, the most fundamental reason why health care spending keeps going up is very easy to understand, but extremely difficult to change.

Quite simply, the largest single driver of rising health care cost is the public's constantly rising demand for health care services in the setting of continued technologic advances in the ability to diagnose and treat both simple and complex illnesses. Rising demand is exacerbated by widespread availability of private and public health insurance coverage, which insulates health care consumers from the relatively high cost of most health care services.

Critics of health care costs often do not discern or do not explain that total health care spending is a function both of the *price*—or unit costs—of health care services, and *utilization*, that is the total numbers of hospital or nursing home days, physicians office visits, laboratory tests, prescription drugs, etc., consumed by all of us who benefit from the health care delivery and financing system.

The cost of health insurance, for example, is a function of both how much each service costs and how many services are used by the insured population. In health care, as in most industries, some unit costs are actually coming down, for example, the price of certain common lab tests. But the numbers of services provided constantly rises.

*Why* we use more care isn't easily explained, but experts generally agree that three major factors drive demand upward:

- Availability of insurance (private or government sponsored), which removes financial disincentives to receiving desired care.

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1997, Vol. 16, #5.

<sup>4</sup> See back of report for a list of the Task Force members.



- An aging population, with increases in medical intervention that come with deteriorating physical and mental function.
- Technological advances, that is the constant coming on line of new medical procedures and new drugs that enable physicians literally to extend life at both ends and to improve the quality of life for all of us.

The first of these cost drivers is the widespread availability of private and government insurance—coupled with an aging population.

As Dr. Eddy so eloquently puts it, health care deals with “the ultimate issues of human existence”: life versus death, peace and comfort versus suffering and discomfort, and function versus dysfunction. Since health care is essential, every developed nation has put in place a variety of mechanisms to assure that inability to pay the cost does not prevent people from receiving health care when they need it.

Vermont has an exceptional track record in this respect, with only 9% of its citizens lacking some form of health insurance, compared to an estimated 12% U.S. average.<sup>5</sup> We can be justifiably proud that the issue of cost barriers to access is a diminishing problem in Vermont, while the rate of uninsured in the rest of the nation appears to be rising. But numerous studies have shown that removal of cost barriers to health care (e.g., mandating insurance coverage of certain services) always results in significant demand increases for those services.<sup>6</sup> Put very simply, if we don’t feel well, and if it costs little or nothing to see the doctor, we will go, even if it isn’t absolutely necessary, for reassurance if nothing else.

In 1996 (latest available national data) Americans spent \$202 *billion* for physicians’ services (19% of total health care spending). Estimates of how many of those visits were “unnecessary” vary widely, ranging up to 25%. But even the most conservative professionals agree that some curtailment of office visits would have no discernible impact on the public health, while saving literally billions of dollars annually.

Widespread health insurance coverage also contributes to an understandable public belief that when someone is very seriously ill, the health care system will and must do everything possible to save or prolong that individual’s life, regardless of the costs involved.

The following actual case history from the files of a Vermont insurer illustrates the cost of that expectation:

A middle-aged woman was diagnosed with Ovarian cancer. After conventional and high-dose chemotherapy failed, her physicians recommended an Autologous Bone Marrow transplant, which was considered experimental for these types of cancers since limited data existed to judge long-term effectiveness. The procedure ultimately was approved and performed, and the patient survives today. Medical costs including the transplant exceeded \$200,000 and are still accumulating.

This case very dramatically underlines the difficulty of containing medical costs when we have: (a) drugs and procedures available to save people who otherwise surely will die, and (b) widely available health insurance to pay whatever it costs. Attempts to limit access to experimental procedures often resulted in many states, including Vermont, passing legislation either requiring coverage or taking decisionmaking authority away from insurers.

But nobody is likely to make decisions to withhold lifesaving care because of cost. That is one

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<sup>5</sup> The rate of uninsured children is even more favorable, with Vermont ranked lowest in the nation at 7%. For more data see FY99 Report to the Legislature, Agency of Human Services, pp. 8.

<sup>6</sup> See *Laws and Consequences: An Examination of Certain Economic, Medical, and Policy Impacts of Mandated Health Care Benefits*, Vermont Business Roundtable, January 1998.

reason why health care professionals widely use an estimate that 20% of the population consumes 80% of the health care resources.

We can and do have a health care system that literally performs miracles. But the cost of medical miracles is extremely high, particularly when society does not accept any limits on what the providers of care must undertake to save a life.

## **GOVERNMENT POLICY AND HEALTH CARE DEMAND**

Many health economists believe that the actions of government itself have been one of the most significant forces driving increased health care cost. In the middle of this century non-taxation of employer-provided health insurance induced unions and employers to negotiate increasingly liberal health insurance policies in lieu of wages.

The advent of Medicare and Medicaid in 1966 gave “free” health insurance to millions of elderly, creating unprecedented increases in demand for services and massively unpredicted increases in cost. One historic account notes that by the end of the first five years Medicare costs had more than doubled original estimates.

Today Medicare and Medicaid spending account for \$350 billion annually of the nation’s estimated \$1 trillion health care bill. In total, government spending accounts for 47% of all health care costs even though the numbers of Medicare and Medicaid beneficiaries total less than 20% of the population. Moreover, the *rate of increase* in government health care spending—driven largely by broader programs that cover more people, as well as the aging population—continues to rise about 9.7% annually.

Government is appropriately giving more people who otherwise couldn’t afford it access to high quality care, thus meeting an important public objective. But government payment significantly increases demand for health services, thus pushing up total spending, and often generating political criticism if not overt attempts to de-escalate costs through further “regulation.” Thus government itself appears to be susceptible to what Dr. Eddy calls the public’s irreconcilable demands for access to more care for more people while containing cost escalation.

Vermonters and the American public generally have made it very clear that they want virtually unlimited access to health care. But unlimited access creates unlimited demand, which inexorably drives up costs. Constantly escalating demand is the primary reason why health spending continues to escalate despite dramatic progress in reducing both the length and numbers of in-patient hospital stays both in Vermont and across the U.S.<sup>7</sup>

## **TECHNOLOGY IN HEALTH CARE: COST DRIVER OR REDUCER?**

The average American and the average Vermonter probably believe that technological innovation

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<sup>7</sup> Blue Cross Blue Shield of Vermont statistics show that hospital days per 1,000 members dropped from 278 in 1994 to 209 in 1998. But during that time outpatient services per 1,000 members nearly doubled, from 2,493 to 4,451, while prescription drug costs per member increased by 66%.

should reduce health care costs. We know technology advances in many industries have improved productivity and kept the U.S. competitive with the rest of the world.

But most experts believe that the introduction and rapid distribution of new technology in health care *increases* rather than reduces cost, largely because most new technology gives physicians more ways to improve the quality of life or in fact to save lives.

This is not to say that technology cannot help *contain* cost escalation, particularly in the administrative and data management ends of the business, which presently consume about 15% of the average hospital budget—and which are rising due to governmental and public demands for new outcome measures.<sup>8</sup>

But technological innovation in medical care generally means that today even the average U.S. community hospital gives patients access to sophisticated diagnostic and treatment capabilities that in other nations are available only in a few highly specialized teaching institutions.<sup>9</sup>

Earlier this paper notes that the widespread availability of insurance (public or private) greatly diminishes concerns about the cost of care, and improves access to care for most Vermonters and indeed to most Americans.

Government and private insurance also gives hospitals income streams to acquire and distribute technology more quickly and more broadly than anywhere else in the world, with presumably favorable impacts on quality and access, and consequently unfavorable impacts on the costs of hospital care.

A 1993 article in the *New England Medical Journal* points out that greater distribution of technology in U.S. hospitals is a major reason why U.S. health care costs exceed those of other nations:

“In Canada, specialized procedures are performed in a relatively small number of large hospitals, whereas in the U.S. most community hospitals provide a wide variety of tertiary services. For example, in 1987 three times as many hospitals in Ontario, California as in St. John’s, Canada provided open heart surgery; there were five times as many with Magnetic Response scanners (MRIs) and 10 times as many with Lithotripters.<sup>10</sup>

In total the authors estimated that hospitals in the U.S. used 24% more resources per patient than Canadian facilities, and that if U.S. spending per patient were held to the Canadian level, health care cost *savings* in the year studied (1985) would have exceeded \$30 billion.

More recent studies indicate that technology-driven cost differences have in fact widened. A 1994<sup>11</sup> update pointed out that the U.S. generally has twice the sophisticated medical technology per person than either Canada or Germany (measuring, for example, CT scanners, MRI devices, cardiac catheterization capabilities, and radiation therapy units) and that U.S. health costs would have been \$84 billion lower that year if held to Canadian levels.

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<sup>8</sup> See Appendix 1 for a schematic on how technology may help contain administrative cost.

<sup>9</sup> See Appendix 1 for some examples, with associated costs, of relatively new procedures that routinely save lives or improve the quality of life for Vermonters.

<sup>10</sup> Donald A. Redelmeier, M.D. and Victor Fuchs, Ph.D., “Hospital Expenditures in the U.S. and Canada,” *New England Journal of Medicine*, March 1993, V. 328, #11.

<sup>11</sup> Dale Rublee, “Medical Technology in Canada, Germany and the United States: An Update,” *Health Affairs*, Fall 1994.

However, these and other authors note that Americans would not likely tolerate the extensive delays, inconvenience, and sometimes outright inability to obtain care that are prevalent in the more centralized and less adequately funded Canadian system. The reader of this document might consider her response to the following scenario: You have terrible leg pain (sciatica) which is not improving after two weeks. Your physician believes it is a ruptured disc and suggests an MRI as the most definitive way to determine whether or not an operation will be required. Would you be willing to wait three to six months (the average delay for an MRI for sciatica in Canada)?

Increasingly, medical innovation and new technology make it possible to do selected surgical procedures using techniques that are less invasive, less painful, equally if not more effective, and often less expensive than older methods. For example, new endoscopic surgical procedures, with incisions far smaller than required by traditional techniques (e.g., to remove gall bladders, repair damaged knees, etc.) cost much less than older methods and often result in shorter hospital stays. Clearly the quality is improved, and the potential for cost saving would seem very significant.

However, as Chernew and numerous others have found, “the introduction of minimally invasive techniques has led in many cases to *increases in* volume of procedures, particularly where indications for their use are controversial and therefore to some extent subjective. Thus, the authors conclude, “if the volume increase is large enough, the new techniques may cause aggregate health care expenditures to rise despite per case savings.”<sup>12</sup>

The fastest rising single component of health cost derives from medical research, not technology per se, and that is the cost of prescription drugs. Most Vermonters probably understand that new drugs have literally revolutionized the prevention and treatment of heart disease, strokes, kidney disease, and cancers, as well as mental illness, high blood pressure, diabetes, and intestinal ailments such as ulcers and colitis.

It is not as well known that drug costs have escalated on average 15% to 30% per year in Vermont and nationally, despite efforts such as price negotiation, introduction of generic equivalents, and imposition of drug formularies by many insurers and government payers.

Further, public pressure to cover the very high costs of so-called “lifestyle drugs” threaten to escalate this very difficult problem even further. Viagra is a perfect example: Blue Cross of Vermont estimates that paying for this drug only where medically indicated would cost the Plan \$3 million per year in new spending. The U.S. Department of Defense recently announced that Viagra for its military insurance program recipients would cost \$50 million per year.

Nevertheless, health insurers and government programs have been severely criticized for refusing to pay for even this drug, where the probability of “recreational” versus medically necessary use is especially great.

In summary, the availability and widespread distribution of lifesaving medical technology and new drugs is a major reason why health care costs in the United States continue to escalate. We

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<sup>12</sup> Michael Chernew, A. Mark Fendrick, Richard A. Hirth, “Managed Care and Medical Technology: Implications for Cost Growth,” *Health Affairs*, March/April 1997, Vol. 16, #2.

have become accustomed to almost daily announcements of new drugs, new procedures, and medical research breakthroughs. Yet we expect the health care system to make all this available to all of us while still finding ways to constrain the inevitable increases in cost.

These conflicting public expectations have led over time to numerous attempts, at both the state and federal Government levels, to reform the health care system. While expert opinion varies as to why multiple reform attempts have failed, public distrust of government itself is frequently cited as a major reason. While continued reform is clearly indicated, it is unrealistic to assume that health care cost escalation can be reined in without commensurate reductions in public demand for care.

## QUALITY AND THE MANAGED CARE BACKLASH

In Vermont and across the U.S. health insurance is most often acquired through group employers who pay large portions of the cost. Employer resistance to constantly rising insurance premiums forced health care providers and insurance companies to find new ways to control cost.

Conversion of privately insured and, more recently, Medicare and Medicaid beneficiaries to “managed care” is the fastest-growing and to date the most promising mechanism for balancing access, quality, and cost in health care.

By 1995, more than 70% of all U.S. workers in private firms were enrolled in some form of managed care. Benefit managers were convinced that by switching from an open-ended fee for service form of payment for health care, to so-called “capitated” systems, enormous savings could be realized without damage to quality of care.

In fact, in the early 1990s health care spending increases dropped to the lowest level in three decades.<sup>13</sup> Many experts credit the rise of managed care plans with most of that favorable impact on cost.

But some providers, consumers and consumer advocates worry that financial constraints built into managed care plans might negatively affect either access to care or quality of care. To understand these concerns, we need to understand how the new system is different.

Traditional attempts to reduce the amount of medical care people demand have relied on mechanisms such as insurance deductibles and co-pays, which affect demand by forcing patients to share the cost of care; or on utilization review systems set up by insurers, who try to influence physician decisions about where and how patients are treated. But prior to the advent of capitated payment systems pioneered by managed care companies, most health care was purchased and paid for through traditional “fee-for-service” methods. In a recently published book, Dr. John Frymoyer and colleagues succinctly explain why “managed care” fundamentally changes the way

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<sup>13</sup> Lynn Etheredge, Stanley B. Jones, Lawrence Lewin, “What Is Driving Health System Change?,” *Health Affairs*, Winter 1996, pp. 93-101; also see K.R. Levit et al, “National Health Expenditures, 1994,” *Health Care Financing Review*, Spring 1996, pp. 205-242.



providers of care think about medical management decisions.

“In this (managed care) form of health care financing, a fixed amount of dollars (expressed as dollars/member/month) is paid by an insurer intermediary, or directly by larger, self-insured industries, to providers ... Changing the economic incentives forces the health care provider to think about how to manage costs rather than how to enhance revenues through provision of more services.”<sup>14</sup>

But the very fact that financial considerations are forced into the decision making process causes consumer advocates to charge that “managed care” could cause providers to deny needed care for strictly budgetary reasons.

A June 1998 letter from Michael Obuchowski, Vermont Speaker of the House, to Rep. Paul Poirier, Chairman of the House Committee on Health Care, clearly states the issue:

“It is in the area of quality of care where the most important concerns about health care policy are emerging. Because of the growth of managed care in the state, with its goals and procedures designed to subject health care decisions to financial reviews and constraints, quality of care is becoming an area of major concern.”

Certainly some concern is understandable, given that managed care plans now cover more than 50 million Americans, including 200,000 Vermonters, and are very rapidly displacing traditional indemnity insurance programs. Concerns are exacerbated by the fact that the health care industry has not until very recently developed consistent, publicly available measures of health care quality, and the large-scale data systems needed to document and report it.

Today, generally accepted quality measures are usually available to customers of large HMOs; public release of the data is controversial and only just beginning. However, managed care organizations have been around for several decades, particularly on the west coast, and numerous, scientifically valid comparative studies have been conducted that compare quality of care provided by these organizations to that of traditional, indemnity insurance companies.

There is no scientifically credible evidence that quality is typically lower in managed care settings (HMOs). In fact, in a 1997 *Health Affairs* review of 68 studies of comparative health care performance, the authors found quite the opposite: “Fears that HMOs uniformly lead to worse quality of care are not supported by the evidence ...”

Noting that many of the studies used multiple measures of quality, the authors report that “there were equal numbers of statistically significant positive and negative results for HMO performance ... Because the evidence is mixed, HMO proponents and opponents alike can find support for their positions on quality of care. The results show something that is simple, obvious, and yet sometimes under-emphasized, that HMOs produce better, the same, and worse quality of care (as fee-for-service plans) depending on the particular organization and the particular

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<sup>14</sup> *The Adult Spine: Principles and Practices*, J.W. Frymoyer, Editor-In-Chief, Lippencott-Raven Publishers, Philadelphia, 1997.

disease.”<sup>15</sup>

Further, these studies document that the quality of health care delivered and financed through traditional fee-for-service based plans also can vary widely depending on which provider the patient selects. In fact, the rise of managed care plans has been driven by increasing public discontent with not only the cost but the quality of traditional fee-for-service medicine. Criticisms typically include perceptions that:

- Perverse incentives in the “fee-for-service” payment system may encourage providers to give too much medical care, since “the more you do the more you earn.”
- The intensity and frequency of patient care service may be more affected by the number of providers in a given location than by any valid measures of need.

Dr. John Wennberg at Dartmouth found through his pioneering “small area analyses” that the number of surgical procedures—particularly where indications of need are controversial—vary greatly depending on the supply of surgeons in any given area.

Data from the Program for Quality Review here in Vermont seem to indicate that the numbers of C-section deliveries performed in hospitals varies radically among populations with similar demographics and similar medical needs characteristics.

- Traditional indemnity plans typically pay for costly medical interventions at the time of illness, and are short on preventive services and patient education—both of which can reduce reliance on the medical care delivery system.
- Fee-for-service indemnity insurers (and third-party administrators) generally do not collect, analyze, and distribute to purchasers, providers, or consumers comparative data on the health care status of insured populations, patient satisfaction, provider practice patterns, or outcomes—all of which are essential to any valid evaluations of quality of care or value received. Most indemnity plans make no effort to credential providers, provide patient self-help education systems, or offer much guidance to customers trying to find their way through a complex and fragmented health care delivery system.

Most well run managed care plans address all of the concerns above, with greater or lesser degrees of effectiveness depending on the quality of the plan and the organization sponsoring it.

Increasingly, health care is being purchased by very sophisticated buyers. Almost all large companies employ experienced benefit managers, and smaller companies hire consultants to guide purchasing decisions. Federal and State governments are buying managed care plans for Medicare and Medicaid eligibles, using consultants to oversee program administration.

These knowledgeable buyers understand the limitations and advantages of various health plans, they demand and use data on quality, and they require health plans to aggressively compete on

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<sup>15</sup> *Health Affairs*, Vol. 15, #5, op cit.

price. That is a major reason why many thoughtful leaders believe that a dynamic marketplace already is reforming the American health care delivery system, and that marketplace pressures offer the best future hope for continued necessary reform.

### **BALANCING ACCESS, QUALITY, AND COST: WHAT MORE CAN BE DONE?**

Marketplace reform is only one of many promising approaches that might give Vermonters continued access to high-quality health care while keeping cost under reasonable control. Some additional questions that policymakers and the public must consider include:

- Can improved public education better balance demand for health care against actual need? The Vermont Health Plan, for example, now offers a program called “Your Health” that includes a detailed self-help manual for many routine medical conditions that should not require a doctor’s intervention. The manual is backed up by a 24-hour hotline staffed by registered nurses who can help decide whether a doctor visit is necessary as well as by an extensive, on-line computerized medical data base that gives members access to information about many common health problems and the best methods of managing them.  
Your Health also offers a library of interactive video tapes on common ailments (e.g. enlarged prostates among males) that might or might not require surgery, with detailed information on various forms of treatment and related complications. Many studies show that when patients make fully informed choices about treatment options, the numbers of surgical operations (and associated medical costs) decline markedly.
- Dr. Wennberg and numerous others have demonstrated that at least some demand for medical care is driven solely by the numbers of practitioners available to provide treatment, particularly among affluent, well-insured populations. Should government and health care policymakers be controlling teaching and licensing programs to permit only necessary numbers of physicians and other medical professionals in a given population area?
- We noted earlier that one reason for comparatively high hospital costs across the U.S. is the high levels of technological sophistication in our community hospitals. Could more consolidation of very sophisticated services in the teaching hospitals reduce costs while maintaining both access and quality?

Vermont health care leaders are already moving in this direction. Fletcher Allen has developed and is deploying a very sophisticated tele-medicine network that allows teaching physicians at the University of Vermont to work with community-based physicians to diagnose illnesses on-line and even to supervise (from FAHC) surgical procedures done at remote sites.

- Previously we discussed two very difficult public policy issues: (a) How can government assure the public that managed care companies are not compromising quality and access

to care for purely financial reasons; and (b) How much medical care is too much (and what price is too high) in last-ditch medical efforts to prolong or save lives?

It is beyond the scope or purpose of this paper to answer these kinds of questions. However, governmental decisions about whether, when, and how to further intervene in the managed care marketplace certainly should be based on scientifically valid data and not on anecdotal horror stories. Otherwise, policy decisions will foster unrealistic public expectations about the health care system.

On the second issue, Vermont is among leading states that have well developed and broadly deployed living will and medical power-of-attorney programs. These allow patients themselves to decide how much “heroic” medical care they wish to receive in end-of-life situations. This is a very promising beginning. But what do we do when the patient and/or the family wants everything possible to be done—regardless of cost and medical efficacy? If the insurer is not allowed to object, who can? These questions remain to be thoughtfully addressed.

## INEXTRICABLE LINKAGES AMONG ACCESS, QUALITY, AND COST

This paper has discussed some perplexing issues that confront providers, insurers, and others involved in the health care delivery and financing system. It points readers toward the voluminous research in the field that documents in much more depth many of the conclusions suggested here.

The health care delivery and financing system in Vermont and across the nation is a dynamic, complex, and largely interdependent mix of professionals and non-profit companies, all of whom are pledged and required to operate in the public interest.

Even though health care generates enormous amounts of media attention, including several popular television shows, its dynamics are poorly understood. Nevertheless, the success of the system is perceived to be and in fact is critically important to the physical and economic wellbeing of Vermonters.

In thinking about how the system operates, we might think of demand for, access to, quality, and cost of health care as being four legs on a chair or four corners on a monolithic block.

So long as demand for care remains insatiable, anything society does to ease access to care will absolutely and inevitably: (a) either drive up the cost of care, or (b) force providers to do more with less, thus threatening to adversely affect quality. Certainly the system can become more efficient and more productive, and it must.

But much of the cost of the system continues to be driven by a public expectation that when it comes to something as important as health care, we can and should have all we want.

This is not a realistic expectation, and it is fostered by unrealistic public policy. If we truly want to control health costs, then we must not expect that we will always be able to get, or provide, *all* the health care we want. But with rational policies and more realistic public expectations, we may be able to get the health care we need. The Vermont Business Roundtable hopes to develop this issue in a future paper.

## APPENDIX 1

### SOME FACTS ABOUT HEALTH CARE IN VERMONT

By most standards and accepted measures of need, Vermont has a well developed, relatively accessible and comparatively efficient health care delivery system. The following data are intended to give interested readers a statistical overview of the system. Sources include the Vermont Association of Hospitals and Health Care Agencies; the Vermont State Department of Health; the Vermont State Medical Society; the Department of Banking, Insurance, and Health Care Administration; the Vermont Program for Quality Health Care; and Blue Cross and Blue Shield of Vermont.

In total, Vermonters spent nearly about \$1.7 billion for health care in 1996, including in-patient and out-patient hospital care, physicians services, nursing homes, home health care, durable medical equipment, and prescription drugs.

#### Hospitals

Vermont has 14 community-based hospitals, all operated on a not-for-profit basis, with an average number of 1,600 staffed beds, of which 800 are occupied on a typical day, adding up to more than 50,000 hospital stays annually. Some Vermonters rely on the Dartmouth Hitchcock Medical Center in Lebanon, N.H. and the Veterans Administration Hospital in White River Junction as primary sources of hospital care. The Brattleboro Retreat is a private hospital that provides mental and substance abuse services, and the Vermont State Hospital provides mental health services.

Hospitals employ about 7,800 Vermonters, paying wages and benefits nearing \$400 million annually. Total operating costs exceed \$700 million a year including \$60 million in capital expenditures.

Using measures such as travel time, ages of the population, and historic and projected use trends, authors of the State Health Resource Management Plan concluded that the supply and distribution of hospital facilities is adequate for present and projected needs of the population.

Vermont hospital costs and use rates compare favorably to regional and national averages. For example, Vermont's 1996 hospital discharge rate per 1,000 averaged 91.2 compared to a national average of 111.2. Vermont hospital costs per admission averaged \$4,885 in 1996 compared to New Hampshire (\$5,006), Massachusetts (\$5,109), Maine (\$5,307), and New York (\$5,878).

However, hospital costs in Vermont are rising faster (about 6.1% per admission annually) than New Hampshire (5.3%), Maine (6%), Massachusetts (3.4%), or New York (5.9%).

#### Physicians

In 1996, 1,384 physicians were practicing in Vermont (1,351 medical doctors and 33 osteopathic)

for a full-time equivalent of 1,062 providers based on a 40-hour week. Of these, 535 practiced mainly in primary care and 849 provided specialty care.

Using guidelines established by the Graduate Medical Education National Advisory Committee to determine population needs, the Vermont State Department of Health says that Vermont's supply of primary care physicians of 74 per 100,000 population falls slightly short of the suggested rate of 78 per 100,000. However, there is an apparent maldistribution; for example, Chittenden, Bennington, and Lamoille counties have more than the suggested numbers of primary care providers, while Rutland, Franklin, Orange, and Essex counties suffer relatively severe shortages.

The Department finds that Vermont's supply of specialty providers (106 FTEs per 100,000) exceeds the suggested range of 78 to 95 per 100,000. Authors of the Health Resource Management Plan say that Vermont and the U.S. have more specialty physicians than any other nation with a modern delivery system. For example, about 59% of Vermont's physicians are specialists, while Canada has almost exactly the opposite ratio with 60% of its physicians in primary care. The University of Vermont has established a training goal to have 50% of its graduates enter primary care.

Vermonters visit doctors on average about four (4) times per year, but the numbers vary widely depending on age. Children ages 1 to 19 average three (3) visits a year; persons ages 65 to 85 average six (6) visits a year; over age 85 the number rises to 10+ annually. Over a three-year period, more than 90% of Vermonters see a medical professional at least once, a rate that is comparable to most privately insured managed care patients' use regionally and nationally.

### **Other Professionals**

The latest available figures put the number of practicing dentists in Vermont at 336. The ratio of general dentists to population is one for every 2,142 people, about the same as the national average. Planners believe the distribution is generally good, but a few counties (e.g., Essex and Grand Isle) may have some access limitations.

### **Total Spending Compared to Averages**

While comparative data are scarce, that which is available suggests that Vermont's total health care spending is lower than national or regional averages, while outcome measures are favorable.

U.S. Government figures put Vermont's per person spending estimates at \$1,600 in 1994, compared to a New England average of \$1,900 and a U.S. average of \$2,042. Over age 65 health care costs also compare favorably even though the rate is substantially higher, with Vermont spending in 1997 at \$3,261 per person compared to a \$3,635 per capita New England average.

## **OUTCOMES MEASURES**

Although Vermonters spend less on health care, the few available comparative measures show

that the appropriateness of health care provided to Vermonters and the results achieved are better than average. For example, the percentage of Vermont women receiving prenatal care in the first trimester of pregnancy stood at 87.5 in 1996 compared to a U.S. rate of 81.3. Another important measure shows the number of Vermont births by Caesarian section compared to the preferable vaginal birth; in 1996 Vermont C-sections averaged 17.1% compared to a U.S. rate of 20.6%.

Vermont deaths from cardiovascular disease averaged 118 per 100,000 persons at latest count, compared to a national average of 145.

Vermont deaths from cancer per 100,000 average 128 compared to national averages of 129.

The percentage of Vermont women receiving breast cancer screening (mammography) in the past two years stood at 78% compared to a national average of 70%.

The percentage of Vermonters with some form of health insurance stood at 93% in 1997 compared to a U.S. (1996) average of 84.4%.

And, responding to a recent survey, 89.6% of Vermonters said their health is good to excellent, compared to a U.S. median rate of 87.1%.



**APPENDIX 2**  
**HOSPITAL COSTS**

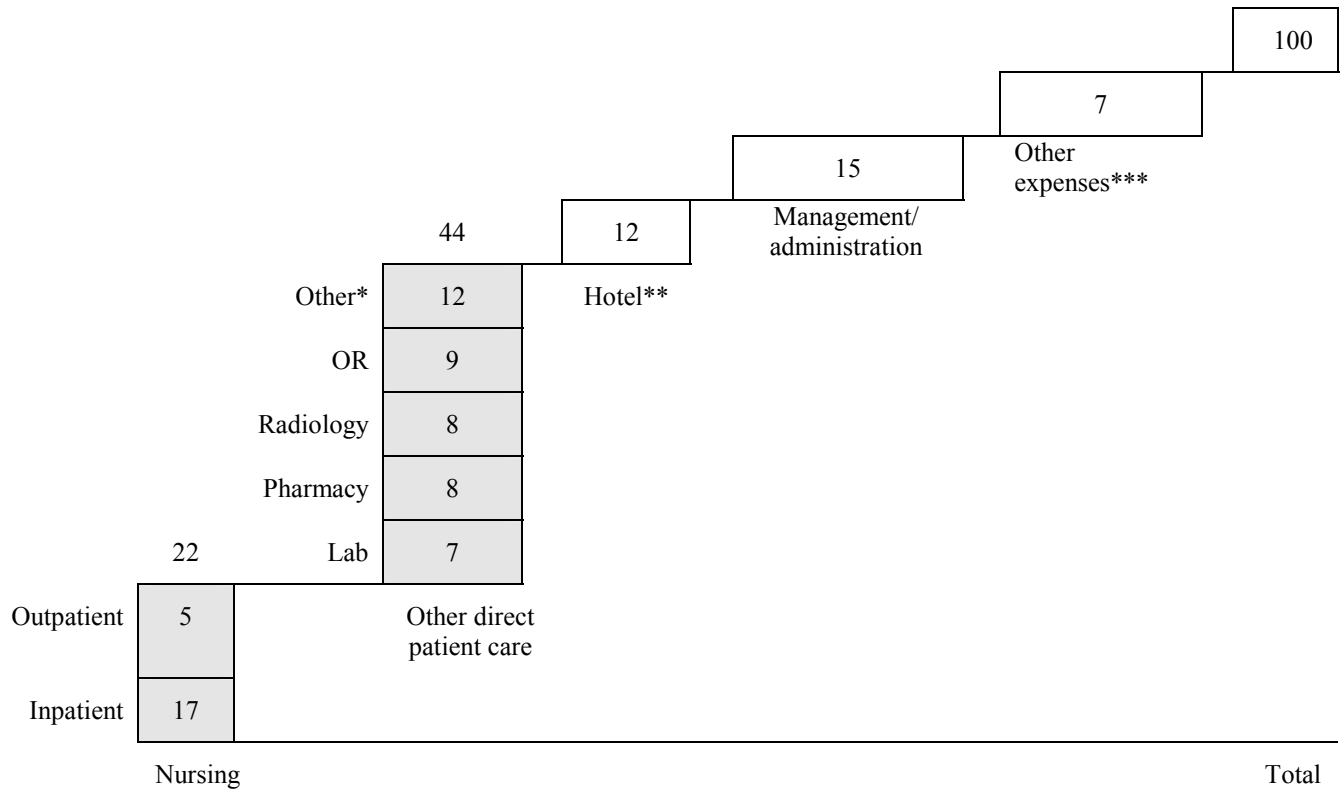
**Vermont Health Care Statistical Snapshot (1996)**

	<b>Vermont</b>	<b>U.S. Average (community hospitals)</b>
<b>Hospital beds/1000</b>	<b>2.8</b>	<b>3.3</b>
<b>Admissions/1000</b>	<b>93.2</b>	<b>119.0</b>
<b>Inpatient days/1000</b>	<b>753.1</b>	<b>741.2</b>
<b>Emergency outpatient visits/1000</b>	<b>364.8</b>	<b>356.2</b>
<b>Total outpatient visits/1000</b>	<b>1481.9</b>	<b>1682.7</b>
<b>Surgeries/1000</b>	<b>76.1</b>	<b>90.2</b>
<b>Births/1000</b>	<b>10.6</b>	<b>14.2</b>
<b>Total RN/LPN/Technician employed at hospitals (full- and part-time)</b>	<b>9,410</b>	<b>4,397,900</b>
<b>Cost/non-medical inpatient day</b>	<b>1232</b>	<b>1516</b>
<b>Medicare Average Length of Stay</b>	<b>5.48</b>	<b>5.58</b>

Source: *1998 Hospital Statistics* report.

### Typical Hospital Cost Structure (disguised U.S. example)

Statistics in boxes  
reflect technology  
related functions  
(by percent)



FTEs Percent	30-35	35-40	15-20	10-15	0-5	100
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Payroll as percent of total expenses	85-90	45-50	55-60	45-50	0	55-85
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\* Emergency room, respiratory therapy, physical therapy, etc.  
 \*\* Housekeeping, plant operations/maintenance, food services, laundry/linen, etc.  
 \*\*\* Depreciations, interest, other

## APPENDIX 3

### GLOSSARY

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**Academic Medical Center:**

A group of related institutions including a teaching hospital or hospitals, a medical school and its affiliated faculty practice plan, and other health professional schools.

**Access:**

(a) From the public policy perspective, access is the ability to obtain needed health care services for individuals or a population.

(b) From the individual consumer's perspective, it is the ability to obtain needed health care services in a timely manner, at a reasonable cost, by a qualified practitioner, at an accessible location.

**Administrative Costs:**

Costs the insurer incurs for utilization review, insurance marketing, medical underwriting, agents' commissions, premium collection, claims processing, insurer profit, quality assurance activities, medical libraries, and risk management.

**Adverse Selection:**

Adverse selection occurs when a larger proportion of persons with poorer health status enroll in specific plans or insurance options, while a larger proportion of persons with better health status enroll in other plans or insurance options. Plans which enroll a subpopulation with higher than average costs are adversely selected. Plans with a subpopulation with lower than average costs are favorably selected.

**Ambulatory Care:**

Medical services provided on an outpatient basis in a hospital or clinic

setting. Services may include diagnosis, treatment, surgery, and rehabilitation.

**Capital Costs:**

Depreciation, interest, leases and rentals, taxes, and insurance on tangible assets like physical plant and equipment.

**Capitation:**

A payment mechanism which pays health care providers a fixed amount per enrollee to cover a defined set of services over a specified time period, regardless of actual services provided. The fixed payment is usually described as the per member/per month (PMPM). In comparing health care costs for a population managed by capitated payment mechanisms, the PMPM is often separately determined for the under 65 and the over 65 age groups.

**Care Management:**

A process by which providers work to improve the quality of care by analyzing variations in and outcomes for current practice in the care of specific health conditions. An intervention (quality improvement) is designed to reduce the variations in care, optimize the use of generalists and specialists, and to measure and improve the outcome, while reducing costs if possible.

**Carrier:**

An organization, typically an insurance company, that has a contract with the Health Care Financing Administration to administer claims processing and make Medicare payments to health care providers for most Medicare Part B benefits.

**Carve-Out Service:**

A “carve-out” is typically a service provided within a standard benefit package but delivered exclusively by a designated provider or group. Mental Health Services are a typical carve-out within many insurance plans.

**Charges:**

The posted prices of provider services.

**Coinsurance:**

A type of cost sharing required by a health plan where the individual is responsible for a set percentage of the charge for each service, and the balance is paid by the plan. For example, under Medicare, individuals pay 20 percent and Medicare pays 80 percent.

**Co-payment:**

A type of cost sharing required by a health plan where the individual must pay a fixed dollar amount (e.g., \$5) for each service.

**Cost Containment:**

Control or reduction of inefficiencies in the consumption, allocation, or production of health care services that contribute to higher than necessary costs. (Inefficiencies in consumption can occur when health services are inappropriately utilized; inefficiencies in allocation exist when health services could be delivered in less costly settings without loss of quality; and, inefficiencies in production exist when the costs of producing health services could be reduced by using a different combination of resources.)

**Cost Contract:**

An arrangement between a managed health care plan and HCFA under Section 1876 or 1833 of the Social Security Act, under which the health plan provides health

services and is reimbursed its costs. The beneficiary can use providers outside the plan’s provider network.

**Cost Sharing:**

A general term used to refer to the amounts an individual is required to pay for services under a health plan (e.g., deductible, co-payment, coinsurance).

**Cost Shifting:**

Cost shifting occurs when the cost of uncompensated care provided to the uninsured is passed on to the insured, or when increased revenues from some payers offset losses and lower net payments from other payers.

**Customary Charge:**

One of the screens previously used to determine a physician’s payment for service under Medicare’s customary, prevailing, and reasonable payment system. Customary charges were calculated as the physician’s median charge for a given service over a prior 12-month period.

**Deductible:**

A type of cost sharing where the individual pays a specified amount before the health plan pays for covered services.

**Demand:**

The need for health care services by a population regardless of ability to pay.

**Effectiveness:**

The net health benefits provided by a medical service or technology for typical patients in community practice settings.

**Efficacy:**

The net health benefits achievable under ideal conditions for carefully selected patients.

**The Employment Retirement Income Security Act:**

ERISA exempts self-insured health plans from state laws governing health insurance, including contribution to risk pools, prohibitions against disease discrimination, and other state health reforms.

**Expense:**

Funds actually spent or incurred providing goods, rendering services, or carrying out other mission related activities during a period. Expenses are computed using accrual accounting techniques which recognize costs when incurred and revenues when earned and include the effect of accounts receivables and accounts payable on determining annual income.

**Federally Qualified HMO:**

An HMO that has satisfied certain federal qualifications pertaining to organizational structure, provider contracts, health service delivery information, utilization review/quality assurance, grievance procedures, financial status, and marketing information as specified in Title XIII of the Public Health Service Act.

**Fee-for-Service:**

A method of paying health care providers for each individual service delivered. A fee-for-service plan generally provides payment to any hospital, physician, or other provider selected by an individual.

**Fee Schedule:**

A list of predetermined payment rates for medical services.

**Fully Capitated:**

A stipulated dollar amount established to cover the cost of all health care services delivered for a person.

**Gatekeeper:**

The person in a managed care organization who decides whether or not a patient will be referred to a specialist for further care. Physicians, nurses, and physician assistants all function as gatekeepers.

**Generalists:**

Physicians who are distinguished by their training as not limiting their practice by health condition or organ system, who provide comprehensive and continuous services, and who make decisions about treatment for patients presenting with undifferentiated symptoms. Generalists typically include family practitioners, general internists, and general pediatricians, and many believe it also includes Obstetrician-Gynecologists.

**Group—Model HMO:**

An HMO that pays a medical group a negotiated, per capita rate, which the group distributes among its physicians, often under a salaried arrangement. (See “Health Maintenance Organization” and “Staff—Model HMO.”)

**Health Care Provider:**

An individual or institution that provides medical services (e.g., a physician, hospital, laboratory). This term should not be confused with an insurance company which “provides” insurance.

**Health Maintenance Organization (HMO):**

A type of managed care plan that acts as an insurer and in some cases, provider, for a fixed pre-paid premium. HMOs can employ salaried physicians (Staff—Model HMO); contract with individual physicians (Individual Practice Model HMO, IPA); or be affiliated with a group of physicians (Group—Model HMO). Generally, an HMO does not pay for non-emergency services

obtained outside of the HMO, unless authorized by the plan.

**Health Plan:**

An entity that acts as insurer for its members; it can be a fee-for-service or a managed care plan.

**Indemnity Plan:**

A health insurance plan which pays a predetermined amount for covered services, generally on a fee-for-service basis.

**Integrated Delivery System (IDS):**

An entity that usually includes a hospital, a large medical group, and an insurance vehicle such as an HMO or PPO. Typically, all provider revenues flow through the organization.

**Long-Term Care:**

Ongoing health and social services provided for individuals who need assistance on a continuing basis because of physical or mental disability. Services can be provided in an institution, the home, or the community, and include informal services provided by family or friends as well as formal services provided by professionals or agencies.

**Managed Care:**

Health care financing/delivery systems that coordinate the use of services by its members to contain costs and improve quality. These systems have arrangements (employment or contractual) with selected physicians, hospitals, and others to provide services, and include incentives for members to use network providers.

**Managed Care Plan:**

A health plan that uses managed care arrangements and has a defined system of selected providers that contract with the plan. Enrollees have a financial incentive to

use participating providers that agree to furnish a broad range of services to them. Providers may be paid on a pre-negotiated basis. (See also “Health Maintenance Organization,” “Point-of-Service Plan,” and “Preferred Provider Organization.”)

**Mandate:**

A state or federal statute or regulation that requires coverage for certain health care services.

**Medicaid:**

A joint federal/state funded program that provides health care services for low-income people. Each state sets its own eligibility standards.

**Medicare:**

A health insurance program for people over 65, those eligible for Social Security disability payments, and those who need kidney dialysis or transplants.

**Medicare+Choice:**

A program created by the Balanced Budget Act of 1997 to replace the existing system of Medicare risk and cost contracts. Beneficiaries have the choice during an open season each year to enroll in a Medicare+Choice plan or to remain in traditional Medicare. Medicare+Choice plans may include coordinated care plans (HMOs, PPOs, or plans offered by provider-sponsored organizations); private fee-for-service plans; or plans with medical savings accounts.

**Medigap Insurance:**

Privately purchased individual or group health insurance policies designed to supplement Medicare coverage. Benefits may include payment of Medicare deductibles, coinsurance, and balance bills, as well as payment for services not covered by Medicare. Medigap insurance must

conform to one of ten federally standardized benefit packages.

**Out-of-Pocket Expense:**

Payments made by an individual for medical services. These may include direct payments to providers as well as payments for deductibles and coinsurance for covered services, for services not covered by the plan, for provider charges in excess of the plan's limits, and for enrollee premium payments.

**Outcome:**

The consequence of a medical intervention on a patient.

**Point-of-Service (POS) Plan:**

A managed-care plan that combines features of both prepaid and fee-for-service insurance. Health plan enrollees decide whether to use network or non-network providers at the time care is needed and usually are charged sizable co-payments for selecting the latter. (See "Health Plan," "Health Maintenance Organization," and "Preferred Provider Organization.")

**Portability:**

An individual changing jobs is guaranteed coverage with the new employer, without a waiting period or having to meet additional deductible requirements.

**Practice Guideline:**

An explicit statement of what is known and believed about the benefits, risks, and costs of particular courses of medical action intended to assist decisions by practitioners, patients, and others about appropriate health care for specific and clinical conditions.

**Preferred Provider Organization (PPO):**

A health plan which contracts with providers to furnish services at discounted rates, in return for increased patient

volumes. Generally, PPOs do not require primary care physician managers, and charge higher coinsurance payments when non-network providers are selected.

**Premium:**

An amount paid periodically to purchase health insurance benefits.

**Prepaid Group Practice Plan:**

A plan by which specified health services are rendered by participating physicians to an enrolled group of persons, with a fixed periodic payment made in advance by (or on behalf of) each person or family. If a health insurance carrier is involved, then the plan is a contract to pay in advance for the full range of health services to which the insured is entitled under the terms of the health insurance contract. A Health Maintenance Organization (HMO) is an example of a prepaid group practice plan.

**Prescription Drug:**

A drug available to the public only upon prescription written by a physician, dentist, or other practitioner licensed to do so.

**Primary Care:**

A basic level of health care provided by the physician with whom an individual has an ongoing relationship and who knows the patient's medical history. Primary care services emphasize a patient's general health needs such as preventive services, treatment of minor illnesses and injuries, or identification of problems that require referral to specialists. Traditionally, primary care physicians are family physicians, internists, gynecologists, and pediatricians.

**Primary Care Physician:**

A generalist physician who provides comprehensive services, as opposed to a specialist. Typically include internists, family practitioners, and pediatricians.



**Providers:**

Hospitals, physicians, nursing homes, and other entities who provide health care services.

**Quality:**

Quality health care includes both “process” and “outcome.”

*Process:*

As a process, *quality improvement*, *care management*, and *quality assurance* represent formal, systematic analyses of current practices, identifying variations in those practices, and then structuring systemic interventions to reduce variations toward the goal of improving the outcome. This process often is referred to as the “Plan, Do, Check, Act cycle.” These processes are different than regulatory processes which monitor the quality of health services through licensing and discipline of health professionals, licensing of health facilities, and the enforcement of standards and regulations.

*Outcome:*

In most health care systems *quality* is measured by two dimensions, patient satisfaction and actual outcomes of care for a given condition. Often these dimensions are benchmarked against national data, or best practices data.

**Risk Assessment:**

The statistical method by which plans and policymakers estimate the anticipated

claims costs of enrollees. This estimation attempts to identify and measure the presence of direct causes and risk factors which, based on scientific evidence or theory, are thought to directly influence the level of a specific health problem.

**Rule 10:**

Quality assurance and consumer protections for Vermont managed care plans established by the State of Vermont Department of Banking, Insurance, Securities, and Health Care Administration.

**Self-Insured Health Plan:**

Employer-provided health insurance in which the employer, rather than an insurer, is at risk for its employees’ medical expenses.

**Staff—Model HMO:**

An HMO in which physicians practice solely as employees of the HMO and usually are paid a salary. (See “Group Model HMO” and “Health Maintenance Organization.”)

**Third-Party Payer:**

An organization (private or public) that pays for or insures at least some of the health care expenses of its beneficiaries. Third-party payers include Blue Cross/ Blue Shield, commercial health insurers, Medicare, and Medicaid. The individual receiving the health care services is the first party, and the individual or institution providing the service is the second party.

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