Health

Utah Citizens' Counsel Health Committee

Article 4. All Utahns, regardless of circumstances, have the right to comprehensive, quality health care at reasonable cost that protects Utahns from the burdens of catastrophic illness or injury and the ensuing risk of bankruptcy or poverty.

Introduction

The world's best-performing health systems use policies that take a coherent, whole-system, approach to change, connecting concerns for access, quality, and cost.[1] This report encourages such an approach, to further improve health care and health in Utah.

This year the Utah Department of Health selected primary indicators of Utah's Health.[2] Hospitals and quality assurance organizations pursued leading-edge efforts, of national significance, to manage costs and quality.[3] This progress, however, does not make up for the state's failure to expand Medicaid. Ironically, the arguments used against expansion focused upon the need to control health care costs but approached this as deciding whom and what conditions to exclude from care. That approach shifts and defers costs but does not manage them. More problematic, it diverts attention from the root causes of high costs. This report focuses upon accountability for managing costs and its connections to expanding access and improving quality.

Context: What is Utah's Cost of Health Care?

High health care costs are a major determinant of accessibility, quality, and health itself. Costs must be better managed. By common measures, Utah compares favorably within the U.S.,[4] but available comparisons probably fall short of gauging what cost management in Utah could achieve. First, Utah must do better than the U.S. average, which far exceeds per capita spending in other wealthy nations[5] and is a heavy burden as a proportion of GDP (17.1%).[6] Second, using available comparisons, Utah should compare favorably with the rest of the U.S. because the comparisons inadequately account for such differences as ages of the population, life style, education, and poverty that give Utah large advantages in managing costs. Cost management and measurement deserve high priority because costs are so high, because direct and comparative measures are so imprecise, and because Utah is capable of addressing these difficulties.[7]

Utah's capability includes its health information, protocols, and accounting. They offer tools to manage costs of "waste" that by national estimates include 50% of hospital costs,[8] of complex administrative systems, and of overuse of technology, including imaging and pharmaceuticals.[9] Utah's Health Information Network (UHIN) became the nation's best system for routing health care billings. Reduced provider and payer participation, however, cut its efficiency and its possibilities for an extraordinary cost-management data base as well as for a clinical information exchange to improve quality, reduce duplicated treatments, and coordinate care. These possibilities, being enhanced as insurance reaches most of the population, deserve pursuit.

Context: What Is Utah's Access to Health Care?

Improved access and resulting cost management were set back by Utah's failure to expand Medicaid.[10] The delay left Utah, previously having a larger proportion of its population insured than the nation as a whole, behind the national coverage rate.[11] Utah's uninsured rate is now 13.2%, down from 15.6% in 2013; however, Utah's state ranking at 37th is a decline from 25th in 2013,[12] as Medicaid expansion elsewhere insured previously uninsured persons.

Managing costs by leaving some people without access to insurance is neither fair nor effective.[13] The UCC endorsed full expansion of Medicaid, seeing benefit for the state budget and the public. Subsequent local studies supported these expectations,[14] as did national studies.[15] Benefits include federal financing that more than makes up for state costs, improves medical care, reduces family financial stress and bankruptcy, and funds much of presently uncompensated care.[16] Non-quantified benefits of the expansion, largely federally financed, include (1) increases in local productivity by improving health and (2) increases in funding when the economy is worst, thus providing counter-cyclical economic stimulus.[17]

Health insurance costs extend beyond the out-of-pocket expenditures of the enrollee, as nearly all health insurance is subsidized by some combination of employers, other institutions, and governments.[18] Employer-based health insurance coverage, excluded from income tax, was subsidized by an estimated $248 billion in 2013.[19] Medicare coverage for the elderly and disabled is subsidized by nearly 4% of GDP. The Affordable Care Act (ACA), in mandating health insurance coverage, provides federal subsidies for individuals with family income between 138% and 400% of the Federal Poverty Level (FPL). Without Medicaid expansion, those with income beyond the old ceilings and categories for Medicaid eligibility, but below 138% FPL, constitute the major group without some form of subsidized health insurance.

Even with insurance, benefit plans and their administration deserve continuing attention:

- Are benefit packages adequate for efficient and effective health care?[20]
- Do provider networks assure timely, accessible, and efficient care?[21]
- Are claims, denials, and other aspects of administration fair?
- What are administrative costs (and capabilities) for payers, providers, and patients?
- Can providers and patients pursue the right service at the right time in the right location?

Since WWII, growing costs of health care and expectations of available health care have spread responsibility for financing health care and brought attention to what constitutes essential care. The ACA establishes some minimum coverage standards and transparency expectations for benefit plans. These allow comparisons of competing plans, but the choices are daunting because of complexity, technicalities, and health and health care uncertainties.[22] These concerns, crucial to health, reveal serious challenges for administrative law, health care professionals, health care and insurance administrators, and patients searching for quality health care and health.

Context: What Is Utah's Quality of Health Care and Health?

Good health care, like good health insurance, may or may not provide direct cost savings. Studies of whether public health and behavioral health programs produce lower costs frequently conclude they do not.[23] Contrary studies suggest that such programs may take years or decades to

implement and to realize their benefits. Consider cigarette smoking in the U.S., beginning in 1900 and growing to a peak in the early 1960s when people 18 and older smoked an average of 4,000 cigarettes per year. Then, prompted by the 1954 Surgeon General's report, smoking fell more than two-thirds by 2010.[24] It may be argued that we previously realized savings in retirement benefits because of early deaths due to smoking. Although there are less expensive and more comfortable ways to early deaths, this reason for smoking fails to meet the basic purpose of a well-functioning health care system: to support happy and productive lives, not necessarily at lowest cost but at an affordable cost.

A well-functioning health care system recognizes that healthy lives depend upon more than access to quality health care. Marc Lalonde, when Minister of Health in Canada, wrote *A New Perspective on the Health of Canadians*, identifying four determinants of health that have come to be known as *the health field concept*: human biology, environment, lifestyle, and the health care system.[25] Health policy too often focuses upon health care, though the causes of sickness and death are deeply rooted in the other three determinants. Health policy should recognize that happy and productive lives incorporate all four determinants of health, which relates this health report to the other reports in this assessment, with their concerns for human dignity, the environment, education, personal security, social services, and participatory governance.

Utah, by commonly referenced reports, ranks among the healthiest states in the nation, moving this year from 6th to 5thoverall,[26] and is in the top quartile in overall quality of care and the second quartile in such disparities in quality of care as those across income and racial groups.[27] Utah is tied for 13th in infant mortality,[28] 4th in mortality amenable to health care,[29] and is in a three-state tie for 9th in healthy life expectancy at 65.[30] For life expectancy at birth, Utah tied for 10th (80.2).[31] International comparisons, commonly based upon data and analysis of the Organization for Economic Cooperation and Development (OECD), reveal opportunities for improvement in U.S. (and presumably Utah) as the U.S. ranks low compared to other wealthy countries.[32] Like comparisons of costs, differences in measurement confuse comparisons over time and across jurisdictions. They need improvement and careful use.[33] A significant achievement in Utah is the adoption of key indicators to measure public health and behavioral health programs. Although Utah ranks well in many of these indicators, there is room for improvement.[34]

The quality of a health care system depends upon its engagement with the patient: a two-way engagement. Measuring the engagement is as difficult as understanding what it means. Measures of consumer satisfaction have become common in the market place and are available for a broad variety of consumer products and services. Utah's health care systems, providers, and payers increasingly collect such information for internal use and to promote their services. The evolution of such measures to assess two-way engagements depends upon improving the understanding and purposes of providers, professionals, and patients.

Commendations

- Utah again being among the top five states in **healthy lifestyles**.

- **New health care delivery structures and systems** such as, or similar to, the Utah Health Information Network (UHIN), Accountable Care Organizations (ACOs), and Medical Homes. These build upon Utah's history of improving and applying best-practice protocols as well as giving attention to patient/provider engagement in improving health and the diagnosis and treatment of health problems.

- **Better accounting and protocols to manage costs and improve quality.** Utah continues its progress, of national and international importance, through its hospitals and quality assurance agencies and institutions.

- **Attention to environmental health.** Utah is expanding attention to air pollution with publicly available and reported measures and by building organizational capability and accountability to assess problems and better address these problems.

- **UDOH indicators.** Utah's Department of Health supported its *Strategic Plan* of 2013 by establishing indicators of the health of Utah's population.

- **Working to insure the uninsured. Interested groups and individuals have exercised remarkable commitment to the yet unsuccessful attempt to overcome the barriers thrown in the path of the needed Medicaid expansion.**

Recommendations

- **Assure access to quality health insurance.** Take full advantage of Medicaid expansion and build the education, support services, and regulation necessary for adequate, effective, and fair care

- **Improve coordination of care.** To improve quality and reduce costs, providers and payers should be strongly encouraged to participate in community health information exchanges and health information networks that allow for secure sharing of clinical information and improving analytic capacity for studying health system performance.

- **Cooperate to improve the safety and efficacy of health care.** A governmental entity should regularly promote and assess cooperative improvement efforts by providers, payers, and patients, making recommendations where new approaches are needed.

- **Establish primary measures of cost and quality to regularly assess, by region and at least by major institutions and categories of providers, the improvement or failure of health care.** This is presumably the responsibility of state government. It is understandably difficult, requiring an evolutionary approach. A first step is to use available measures, skeptically assessing the resulting data to point the way to improvement.

- **Establish strategic state leadership in cost containment.** Health care costs deserve high priority; much responsibility falls upon health care providers, including health care educators, and agencies concerned with public health, environmental health, and

behavioral health. It needs support, encouragement, coordination, and evaluation by public agencies, e.g., the Utah Department of Health, the Governor, and the Legislature. This leadership would appropriately address the above recommendations, and more.

Notes

[1] Cathy Schoen, et al., "U.S. Health System Performance: A National Scorecard," *Health Affairs,* 25 (No. 6) (November 2006): w457-w475, accessed November 16, 2015, http://content.healthaffairs.org/content/25/6/w457.full?sid=5d75d908-c495-402a-9935-0bd56349c12d.

[2] Utah Department of Health, "Utah's Healthiest People, Priorities Report" (January 2015), accessed November 21, 2015, http://health.utah.gov/opha/publications/2015HealthiestPeople.pdf.

[3] This includes, though is not limited to, the work of Intermountain Healthcare, the University of Utah Health Care, and Health Insight, as reported in such documents as:

Brent C. James, M.D., M.Stat. (2015). "There is No Quality without Access: Bending the Cost Curve in Health Care," slide presentation before the Harvard Alumni Association of Utah (Feb. 26).

Gina Kolata, "What Are a Hospital's Costs? Utah System Is Trying to Learn," *New York Times,* September 7, 2015: 1.

HealthInsight, "Draft Utah Health IT Strategic Plan" (June 2015).

[4] Health care expenditures:

Expenditures per person, with rates of change with national comparisons

	1991	1996	2001	2006	2009	average annual % growth
Utah (by state of residence)	$1,993	$2,500	$3,293	$4,486	$5,031	5.3%
U.S.	$2,678	$3,421	$4,435	$6,028	$6,815	5.3%
Medicare: Utah	$2,600	$4,173	$4,705	$7,363	$8,326	6.7%
Medicare: U.S.	$3,435	$5,196	$6,101	$9,012	$10,365	6.3%
Medicaid Utah: Utah	$4,135	$4,824	$5,968	$6,835	$7,293	3.2%
Medicaid: U.S.	$3,545	$4,185	$5,671	$6,226	$6,826	3.7%

Sources: Centers for Medicare and Medicaid Services (CMS), "Total All Payers State Estimates by State of Residence," accessed Aug. 31, 2015, https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/res-tables.pdf, 11, 22, 26. For a brief analysis of the national tables from which these figures are drawn, see CMS "State Health Expenditure Accounts by Residence Location, Highlights, accessed Aug. 31, 2015, https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/res-Highlights.pdf.

It is not clear that this information provides meaningful, usable information. The Medicaid figures provide an example of the problem. Why would Medicaid be the only Utah payer listed with costs higher than the national average? It is possible, but it more likely results from inconsistencies in data collection/definitions, data reporting, or some undetermined mix of variables that significantly weight the Medicaid data toward higher costs. Or, higher costs may reflect such differences in policy as eligibility levels or provider payments. Or, the state could be less efficient. The present comparison may say something about costs in Utah, but it is not clear what, and it certainly is difficult to draw actionable conclusions from the comparison with other locations. Assessing and improving the validity of such measures are complex tasks whose difficulty should not be underestimated.

[5] International comparisons of health care expenditures:

Comparison of U.S. and other industrialized nations spending per capita, including rates of change, 2013

	Total per capita	% annual change 2009-2013	Source Public	Out of Pocket	Other private
U.S.	$9,086	1.50%	$4,197	$1,074	$3,442
Range: 12 nations	$3,364 - $6,325	-0.88% - 6.95%	$2,614 - $4,981	$270 - $1,630	$26 - $654
Low – high nation	UK – Switz.	UK - Sweden	Australia - Norway	Netherlands – Switz.	Norway - Canada
OECD median	$3,661	1.24%	$2,598	$625	$181

Source: D. Squires and C. Anderson, "U.S. Health Care from a Global Perspective," Exhibit 2. The Commonwealth Fund, October 2015, accessed November 16, 2015, http://www.commonwealthfund.org/publications/issue-briefs/2015/oct/us-health-care-from-a-global-perspective. Exhibit 2 draws from OECD (Organization for Economic Co-operation and Development) Health Data reported in 2015 for 2013, with adjustments for comparability, such as for difference in cost of living. The 12 nations are France, Sweden, Germany, Netherlands, Switzerland, Denmark, New Zealand, Canada, Japan, Norway, Australia, and the United Kingdom.

[6] "U.S. Health Care from a Global Perspective," Exhibit 1. The U.S. rate is 17.1% of GDP vs. a range of 8.8% (UK) to 11.6% (France) for the other nations (2013).

[7] The difficulties should not be underestimated. Challenges exist in every aspect of health care, as shown in the following distribution of reimbursements by provider type and comparisons of costs. Providers themselves will necessarily be involved in each expenditure type, payers also have crucial roles, and governments are involved as payers, regulators, and conveners of cooperative efforts.

Distribution per enrollee of reimbursements, by provider type

	Utah 1991	Utah 1996	Utah 2001	Utah 2006	Utah 2009	U.S. 2009	UT annual %Δ '91-'09	US annual %Δ '91-'09
Hospitals	$767	$939	$1,119	$1,571	$1,830	$2,475	4.9%	4.7%
Physicians & clinical services	$498	$583	$764	$1,072	$1,189	$1,650	5.0%	4.9%
Pharmaceuticals	$241	$320	$541	$707	$741	$968	6.4%	7.3%
Insurers								
Dental	$128	$176	$250	$308	$342	$333	5.6%	5.3%
Nursing homes	$100	$117	$139	$165	$186	$447	3.5%	4.7%
Other	$260	$365	$480	$662	$743	$955	5.5%	7.4%

Source: "Total All Payers State Estimates by State of Residence," 12-20, Centers for Medicare and Medicaid Services, accessed November 21, 2015, https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/res-tables.pdf.

Insurers are not reported. "Other" includes other professional, home health care, durable medical products, and "other."

International comparative diagnostic imaging use per 1,000 population

	MRI exams	**CT exams**	**PET exams**
U. S.	106.9	240	5.0
Range	27.6 – 90.9	71 - 193	2.0 – 6.3
OECD median	50.6	136	N A

Source: "U.S. Health Care from a Global Perspective," Exhibit 5.The range is limited by available information to fewer than the 12 nations listed by the Commonwealth Fund. The year is generally 2013, but in specific cases is 2010, 2011, or 2012.

Comparative prices for procedures (2013) and pharmaceuticals (2010)

	Bypass Hosp. & Physician	Appendectomy Hosp. & Physician	Diagnostic MRI	Diagnostic CT (abdomen)	Pharmaceuticals In-patient
U. S.	$75,345	$13,910	$1,145	$896	100
Range	$15,742-$42,130	$4,995-$9,845	$138-$1,005	$97-$500	46 - 95

Source: International Federation of Health Plans, "*2013 Comparative Price Report,"* accessed November 16, 2015, http://www.ifhp.com/1404121/, & reported in "U.S. Health Care from a Global Perspective," Exhibit 7. Pharmaceuticals are a comparison of prices for a basket of pharmaceuticals, with U.S. set to 100.

Comparison of expenditures as percentage of GDP (2013).

	Health Care	Social Care	Total
U. S.	16	9	25
Range	9 - 12	10 - 21	20 -33

Source: E. H. Bradley and L. A. Taylor. "The American Health Care Paradox: Why spending More Is Getting Us Less." *Public Affairs (*2013), as reported in "U.S. Health Care from a Global Perspective," Exhibit 8.

[8] Brent C. James, "There is No Quality without Access: Bending the Cost Curve in Health Care," James summarizes assessments suggesting that up to 50% of hospital costs are "waste," resulting in poorer outcomes. He summarizes a "new health care delivery world" in which there is:

"All the right care (no underuse), but
Only the right care (no overuse);
Delivered free from injury (no misuse);
At the lowest necessary cost (efficient);
Coordinated along the full continuum of care (timely; 'move upstream');
Under each patient's full knowledge and control (patient-centered; 'nothing about me without me');
With grace, elegance, care, and concern."

[9] "U.S. Health Care from a Global Perspective."

[10] Editorial, "Utah Republicans want to avoid responsibility for killing health care access," *Salt Lake Tribune*, October 4, 2015; Editorial, "Lawmakers trick doctors into killing health care access," *Salt Lake Tribune,* October 09, 2015. These scathing analyses of the October situation are reasonably summarized by their headlines. The blame, however, is too broadly applied; political maneuvering had given House leadership the power to block the more favorable support of expansion by the Governor and the Senate.

[11] "State Health Facts," Kaiser Family Foundation, accessed Nov. 19, 2015, http://kff.org/other/state-indicator/total-population/#map. Utah's uninsured rate in 2014 was in the third quintile of states; other states with as high a rate were Alaska, Montana, Nevada, Arizona, New Mexico, Oklahoma, and in the South.

[12]Dan Witters, "In U.S., Uninsured Rates Continue to Drop in Most States," accessed Nov. 16, 2015, http://www.gallup.com/poll/184514/uninsured-rates-continue-drop-states.aspx. The 2013 to 2015 comparison is based on the numbers in the Gallup survey.

[13] Aileen H. Clyde, "Testimony to the Health and Human Services Subcommittee, Joint Appropriations Committee, 2015 Utah Legislature, February 11, 2015." See www.utahcitizenscounsel.org.

[14] Public Consulting Group, "Report on expansion options for Utah's Medicaid program under the Affordable Care Act" released by the Utah Department of Health (UDOH) May 23, 2013, summarized in a UDOH release "Public Consulting Group, Summary of Cost/Benefit Analysis," and a summary by the Utah Health Policy Project "Pros and Cons of Medicaid Expansion," released June 2013.

Sven E. Wilson, PhD, "Economic Perspectives on Utah Medicaid Reform under the ACA," a subsequent report for the UDOH, released August, 2013.

There was much dispute over projections of costs, financial returns, enrollees, and dependability of federal support. The most recent proposal considered by the Legislature, killed Oct. 13, 2015, expected providers to pay most of the state's direct costs, "about $50 million to bring in $450 million of federal matching funds in order to subsidize health coverage for about 95,000 of Utah's poor," Robert Gehrke, "Medicaid expansion plan likely doomed," *Salt Lake Tribune,* October 13, 2015, 1.

[15] A 2014 Urban Institute report outlined expected economic benefits, concluding that "Every comprehensive state-level budget analysis of which we know found that expansion helps state budgets, because it generates state savings and additional revenues that exceed increased Medicaid costs." Stan Dorn, Megan McGrath, and John Holahan,

"What is the Result of States Not Expanding Medicaid?" Urban Institute, August 7, 2014, accessed October 17, 2015, http://www.urban.org/research/publication/what-result-states-not-expanding-medicaid.
A Robert Wood Johnson Foundation Issue Brief by Deborah Bachrach, Patricia Boozang, and Dori Glanz, "Medicaid Expansion States See Significant Budget Savings and Revenue Gains," March 2013, accessed October 16, 2015, http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2015/rwjf419097 reports "consistent economic benefits across expansion states."
Other studies make similar reports:
Kerri Richardson and Terry Sebastian, "KY's Medical Expansion: 40,000 jobs, $30B Economic Impact," accessed October. 16, 2015, http://kentucky.gov/Pages/Activity-Stream.aspx?viewMode=ViewDetailInNewPage&eventID=%7B97DA58DC-A167-4B3B-9B18-7C1E2CA79C88%7D&activityType=PressRelease ;
Deborah Bachrach, Patricia Boozang, and Mindy Libson, "Medicaid Update," accessed October 16, 2015, https://www.manatt.com/medicaid-update/Manatt-on-Medicaid-Early-Results-Point-to.aspx
Jocelyn Guyer, et al. "A Look at the Private Option in Arkansas," accessed October 16, 2015, http://kff.org/medicaid/issue-brief/a-look-at-the-private-option-in-arkansas/?utm_campaign=KFF%3A+2015+August+Arkansas+Private+Option&utm_source=hs_email&utm_medium=email&utm_content=21583677&_hsenc=p2ANqtz--qtH_lSXl6YEVgtOAAdc1FTKic86pdKBNQVQfqbXxlifnCZopnEm3Nkp-55RU-Lg65sUi86xx-46FHgOBPHWBPbiFR-hzaXrb-_GPH2XydcxamymY&_hsmi=21583677

[16]David Blumenthal, et al., "Does Medicaid Make a Difference?" Commonwealth Fund, accessed October 16, 2015, http://www.commonwealthfund.org/~/media/files/publications/issue-brief/2015/jun/1825_blumenthal_does_medicaid_make_a_difference_ib_v2.pdf.

[17] The Council of Economic Advisors, "Missed Opportunities: the consequences of state decisions not to expand Medicaid," Executive Office of the President of the United States, July 2014, accessed November 16, 2015, https://www.whitehouse.gov/sites/default/files/docs/missed_opportunities_medicaid.pdf.

[18] Michael Stapley, "My view: Because we're all dependent, Utah should pass health care reform" *Deseret News,* July 19, 2105, accessed November 20, 2015, http://www.deseretnews.com/article/865632894/Because-were-all-dependent-Utah-should-pass-health-care-reform.html.

[19] Congressional Budget Office (CBO), "The Distribution of Major Tax Expenditures in the Individual Income Tax System," Congress of the United States, May 2013, accessed October 16, 2015, http://www.cbo.gov/sites/default/files/cbofiles/attachments/43768_DistributionTaxExpenditures.pdf. The CBO describes the exclusion in the following way, "A number of exclusions, deductions, preferential rates, and credits in the federal tax system cause revenues to be much lower than they would be otherwise for any given structure of tax rates. Some of those provisions—in both the individual and corporate income tax systems—are termed "tax expenditures" because they resemble federal spending by providing financial assistance to specific activities, entities, or groups of people. Tax expenditures, like traditional forms of federal spending, contribute to the federal budget deficit; influence how people work, save, and invest; and affect the distribution of income" (p.1). By far the largest of these tax expenditures is the employer-sponsored health insurance: $248 billion in 2013 compared, for example, with the (next largest) mortgage deduction valued at $70 billion in 2013. "The exclusions for employer-sponsored health insurance and net pension contributions and earnings not only reduce income subject to the income tax but also reduce earnings subject to the payroll taxes for Social Security (Old-Age, Survivors, and Disability Insurance, or OASDI), and Medicare's Hospital Insurance (HI) program. The estimates in this report of the exclusions for employer-sponsored health insurance and pension contributions include that effect on payroll taxes" (p. 23). A more detailed, technical, current, and perhaps not exactly comparable is: Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for fiscal years 2014-2018,* Congress of the United States, August 5, 2014, accessed October 16, 2015, https://www.jct.gov/publications.html?func=startdown&id=4663.

[20] "Essential Health Benefits: Balancing Coverage and Cost," Institute of Medicine, October 6, 2011, accessed October 16, 2015, http://iom.nationalacademies.org/Reports/2011/Essential-Health-Benefits-Balancing-Coverage-and-Cost.aspx#sthash.DwrxLe40.dpuf.

[21] James C. Robinson, "Comparative Effectiveness Research: From Clinical Information To Economic Incentives," *Health Affairs*, 29 (October 2010): 1788-95, accessed November 16, 2015, http://content.healthaffairs.org/content/29/10/1788.full?sid=b6f4a8f1-5510-4f55-a233-6a2f88d2108e http://www.massmed.org/advocacy/key-issues/health-care-reform/mms-principles-for-the-use-of-prior-authorizaton-programs-(pdf)/.
"Principles for the Use of Prior Authorization Programs," Massachusetts Medical Society, 2006, accessed November 16, 2015, http://www.massmed.org/advocacy/key-issues/health-care-reform/mms-principles-for-the-use-of-prior-authorizaton-programs-(pdf)/
[22] For recent examples of problems of complexity:
Robert Pear, "Makeover Coming for HealthCare.gov," *New York Times,* October 12, 2015, .A16.
Editorial, "How to Keep People in Health Plans," *New York Times,* October 12, 2015, .A22.
[23] Margot Sanger-Katz, "Conventional Wisdom Clashes with Data on Health Care Savings," *New York Times,* August 15, 2015, A15.
[24] Heather L Wipfli and Jonathan Samet, "Framing Progress in Global Tobacco Control To Inform Action On Noncommunicable Diseases," *Health Affairs* 34 (September 2015): 1480-1488.
[25] Marc Lalonde, "A New Perspective on the Health of Canadians," Ottawa: Ministry of Supply and Service, 1974, 31-32.

"A basic problem in analyzing the health field has been the absence of an agreed conceptual framework for subdividing it into its principal elements. Without such a framework, it has been difficult to communicate properly or to break up the field into manageable segments which are amenable to analysis and evaluation. It was felt keenly that there was a need to organize the thousands of pieces into an orderly pattern that was both intellectually acceptable and sufficiently simple to permit a quick location, in the pattern, of almost any idea, problem or activity related to health: a sort of map of the health territory. Such a Health Field Concept was developed during the preparation of this paper and it envisages that the health field can be broken up into four broad elements: **HUMAN BIOLOGY, ENVIRONMENT, LIFESTYLE and HEALTH CARE ORGANIZATION.** These four elements were identified through an examination of the causes and underlying factors of sickness and death in Canada, and from an assessment of the parts the elements play in affecting the level of health in Canada.

"The **HUMAN BIOLOGY** element includes all those aspects of health, both physical and mental, which are developed within the human body as a consequence of the basic biology of man and the organic make-up of the individual (including the genetics), the processes of maturation and aging, and the many complex internal systems in the body, such as skeletal, nervous, muscular, cardio-vascular, endocrine, digestive and so on.

"The **ENVIRONMENT** category includes all those matters related to health which are external to the human body and over which the individual has little or no control. Individuals cannot, by themselves, ensure that foods, drugs, cosmetics, devices, water supply, etc. are safe and uncontaminated; that the health hazards of air, water and noise pollution are controlled; that the spread of communicable diseases is prevented; that effective garbage and sewage disposal is carried out; and that the social environment, including the rapid changes in it, do not have harmful effects on health.

"The **LIFESTYLE** category, in the Health Field Concept, consists of the aggregation of decisions by individuals which affect their health and over which they more or less have control. . . . Personal decisions and habits that are bad, from a health point of view, create self-imposed risks. When those risks result in illness or death, the victim's lifestyle can be said to have contributed to, or caused, his own illness or death.

"The **HEALTH CARE ORGANIZATION** consists of the quantity, quality, arrangement, nature and relationships of people and resources in the provision of health care. It includes medical practice, nursing, hospitals, nursing homes, medical drugs, public and community health care services, ambulances, dental treatment and other health services such as optometry, chiropractics and podiatry. This fourth element is what is generally defined as the health care system."
Also "Lalonde Report," *Wikipedia*, accessed November 16, 2015, https://en.wikipedia.org/wiki/Lalonde_report.
[26] United Health Foundation, "America's Health Rankings: State public health statistics," accessed October 18, 2015, www.americashealthrankings.org/UT.
[27] "2014 National Healthcare Quality and Disparities Report," U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality, 22, accessed November 17, 2015, www.ahrq.gov/research/findings/nhqrdr/index.html.
[28] Henry J. Kaiser Foundation, "State Health Facts, Infant Mortality," accessed October 16, 2015, http://kff.org/other/state-indicator/infant-death-rate/.

[29] Health System Data Center, "Avoidable Hospital Use & Costs," The Commonwealth Fund, accessed November 18, 2015, http://datacenter.commonwealthfund.org/#ind=24/sc=1. Data are for 2014.
A related study is S. C. Schoenbaum, et al., "Mortality Amenable to Health Care in the United States: The Roles of Demographics and Health Systems Performance," *Journal of Public Health Policy*, 32 (Aug. 25, 2011): 407-29, accessed November 17, 2015, http://www.palgrave-journals.com/jphp/journal/v32/n4/full/jphp201142a.html.
[30] "State-Specific Healthy Life Expectancy at Age 65 Years—United States 2007—2009," Centers for Disease Control and Prevention, accessed November 17, 2015, www.cdc.gov/mmwr/pdf/wk/mm6228.pdf.
[31] The Henry J. Kaiser Foundation, "Life Expectancy at Birth (in years)," accessed November 16, 2015, http://kff.org/other/state-indicator/life-expectancy/.
[32] "U.S. Health Care from a Global Perspective," Exhibit ES-1. Their rankings compare the U.S. and other wealthy countries in the data base of the OECD: 10 countries more comparable to the U.S. It takes an understanding of definitions and of how multiple indicators are aggregated for the overall ranking to see how the UK can rank number 1 for most of the specific indicators, yet ranks 10th (of 11) for the measure of "healthy lives," which is the ultimate goal. This can question the relative impact of the health care system on "healthy lives" as compared with "lifestyle," "environmental" and "human biology" factors, which are variables in the health field concept and which appear to have a more significant impact on overall health.

EXHIBIT ES-1. OVERALL RANKING

COUNTRY RANKINGS

- Top 2*
- Middle
- Bottom 2*

	AUS	CAN	FRA	GER	NETH	NZ	NOR	SWE	SWIZ	UK	US
OVERALL RANKING (2013)	4	10	9	5	5	7	7	3	2	1	11
Quality Care	2	9	8	7	5	4	11	10	3	1	5
Effective Care	4	7	9	6	5	2	11	10	8	1	3
Safe Care	3	10	2	6	7	9	11	5	4	1	7
Coordinated Care	4	8	9	10	5	2	7	11	3	1	6
Patient-Centered Care	5	8	10	7	3	6	11	9	2	1	4
Access	8	9	11	2	4	7	6	4	2	1	9
Cost-Related Problem	9	5	10	4	8	6	3	1	7	1	11
Timeliness of Care	6	11	10	4	2	7	8	9	1	3	5
Efficiency	4	10	8	9	7	3	4	2	6	1	11
Equity	5	9	7	4	8	10	6	1	2	2	11
Healthy Lives	4	8	1	7	5	9	6	2	3	10	11
Health Expenditures/Capita, 2011**	$3,800	$4,522	$4,118	$4,495	$5,099	$3,182	$5,669	$3,925	$5,643	$3,405	$8,508

Notes: * Includes ties. ** Expenditures shown in $US PPP (purchasing power parity); Australian $ data are from 2010.
Source: Calculated by The Commonwealth Fund based on 2011 International Health Policy Survey of Sicker Adults; 2012 International Health Policy Survey of Primary Care Physicians; 2013 International Health Policy Survey; Commonwealth Fund *National Scorecard 2011;* World Health Organization; and Organization for Economic Cooperation and Development, *OECD Health Data, 2013* (Paris: OECD, Nov. 2013).

[33] Alice Chen, Emily Oster and Heidi Williams, "Why is infant mortality higher in the US than in Europe?" accessed November 17, 2015, www.nber.org/papers/w20525. Using infant mortality rates as the example, the researchers state that "cross country comparisons of aggregate infant mortality rates provide very limited insight [because of the] well-recognized problem that countries vary in their reporting of births near the threshold of viability."
[34] Utah Department of Health, *Utah's Healthiest People, Priorities Report,* January 2015, accessed November 16, 2015, http://health.utah.gov/opha/publications/2015HealthiestPeople.pdf. Each indicator is shown with a several page interpretation, including comparisons with the nation, trends, details of definitions and sources, and programs and goals. Most data age adjusted, some extrapolated from graphs, and trends are for the last five years.

Indicator	Utah Rate	U.S. Rate	Utah Trend
Smoking, Adolescents	4.4	15.7	good
Smoking Adults	10.2	18.6	good
Physical Activity, Adults	55.7	49.5	good
Physical Activity, Adolescents	19.7	27.1	poor
Obesity, Adult	24.9	28.2	poor
Obesity, Adolescents	6.4	13.7	poor
Binge Drinking	12.3	16.5	poor
Chronic Drinking	4.5	6	poor
Substance Abuse, Adolescents, Alcohol	11.0	34	good
Substance Abuse, Adolescents, Marijuana	7.6	23	good
Depression, Adult	21.7	17.6	poor
Suicide Risk, Youth	12.4	13.6	poor
Suicide Attempt, Youth	7.3	8.0	good
Drug Overdose & Poisoning	20.3	13.1	poor
Unintentional Injury Deaths	42	39	poor

Source: Utah Department of Health, *Utah's Healthiest People Priorities Report*