Health

Utah Citizens' Counsel Health Committee

Article 4. All Utahns have the right to comprehensive, quality health care at reasonable cost, and responsible societal efforts to help them achieve and maintain optimal well-being, with appropriate initiatives that encourage and facilitate healthy living and the prevention of disease, disability, and injury.

Introduction

The uncertainty in national health policy is increasing, and so are concerns about how costs are distributed and how costs affect access to and quality of health care. Utah and the nation face these concerns while hobbled by health care costs that nationally are nearly twice that of other advanced nations.[1] These costs, moreover, do not buy better health; health in the U.S. falls well below that in comparable nations.[2] Utah does better than the rest of the U.S., but not as well as most advanced nations. Utah can do better still, and by doing so can improve its economy and quality of life while also contributing to national progress.

The next few years will test whether we will improve health while we control costs. Ongoing uncertainty in health care markets, heightened by political threats and inaction, intensifies concerns about federal costs.[3] These, in turn, increase uncertainties for states, insurers, employers, and individuals and threaten insurance coverage. How might Utah respond to the national uncertainty and the needs for better health care? Our first theme this year is whether Utah will be a leader in positive change, or will wait, and perhaps be limited by external events.

A second theme builds upon the references in our previous reports to the "Health Field Concept"[4] and "health determinants." These concepts enlarge the scope of health care study and policy. They go beyond medical care, for example, to include pollution control in seeking individual well-being and population health. This second theme encourages public health programs and patient engagement, and explores links between health and the other programs assessed by the Utah Citizens' Counsel.

A third theme is Utah's continuing failure to accept the expanded federal funding offered by the Affordable Care Act for Medicaid.[5] This failure unfairly hurts our disadvantaged citizens and unreasonably restricts Utah's economy.

The Situation: Indicators, Observations, and Interpretations

Overall Measures of health and health care include those measures 1) focusing upon the health of the population and 2) those focusing upon the performance of health care systems.

An established assessment focusing on population health is the United Health Foundation's *America's Health Rankings*. The latest edition ranks Utah 8th best in the nation using their 34 health determinants and outcomes. Utah traditionally ranks well, first in the nation during the '90s but moving lower in rankings since then, slipping to 7th and now 8th in the last two reports.[6] The 2016 edition "highlights" five Utah trends. Three are negative (physical inactivity of adults;

Salmonella incidence; and disparity in health status by level of education), and two are positive (HPV immunizations of young males and preventable hospitalizations). In the four general categories that group the 36 measures, Utah ranks number 1 in "Behaviors"--a reflection of life styles. In the "Outcomes" category, which groups 8 measures, Utah ranks number 3, reflecting quality of care and demographic factors such as a younger population and less poverty.

A Commonwealth Fund annual report, now in its fifth year, concentrates upon health care systems. With the most recent comparable data, it uses 100 indicators for 2014 and 2015 to assess the present, and the same indicators two years earlier to assess trends.[7] Overall, Utah ranks high at 15th, but was 12th two years earlier, again slipping a bit.[8] The report estimates potential improvement by calculating the change if Utah were to match the state with the best rate for specific indicators. That calculation would result in giving 313,506 more adults a source of coordinated care; 9,525 more children vaccinations; 4,912 fewer patients unsafe medications; 199 patients the life they prematurely lost; and 2,548 fewer patients making costly and stressful emergency department visits.

Access continues to be a challenging problem for Utah, keeping the state's national ranking below where it could be. Although Utah increased the income cap for parent eligibility for Medicaid to 60% of poverty,[9] the failure to adopt Medicaid expansion under the Affordable Care Act wasted an opportunity to improve low-income residents' access to care and to reduce their financial burdens. It also missed major opportunities to support the state's economy and health care providers. The minimal expansion proposal passed in 2016 still lacks federal approval.[10] Although it would address some important public policy needs, it is an incomplete and expensive approach, using traditional, rather than enhanced, federal financial support.[11] Additionally, newly proposed time limits and work requirement amendments dampen access for the new populations that critically need coverage, and set a problematic precedent for Utah's Medicaid program. Recent national studies find that increased coverage itself helps recipients gain employment, health care, and health status.[12] As said in last year's report,[13] the expansion proposal fails to address the unfairness of our health care policies for the uninsured or to capitalize on the fact that Medicaid expansion improves cost management and total population health.

Cost is a pressing challenge, deepened by national political failures that stymy essential progress. A recent analysis of spending for personal health care ranks Utah as the state with the least expenditures per person: $5,982 per year, which is 74% of the expenditure per person for the nation as a whole--$2,023 per person less than the national average.[14] How satisfactory is that for Utah? We know, but cannot well quantify, that Utah should have low costs because of such advantages as healthier life styles, younger populations, lower poverty rates, and higher levels of education. Perhaps with these advantages Utah should do even better when compared to the rest of the nation.

The huge gap between U.S. costs and costs in other highly developed countries also sheds light on Utah's need and capacity to do better. A 2017 Commonwealth Fund study comparing health care in the U.S. with ten other economically advanced nations ranks the U.S. last overall and "last in Access, Equity, and Health Care Outcomes, and next to last in Administrative Efficiency as reported by patients and providers. Only in Care Process is the U.S. performance better, ranking fifth."[15] OECD data for 2014 show that in comparing *costs* the U.S. is an even more

distant outlier. U.S. health expenditures as a percent of GDP (a measure of national economic burden) are 17.2%, while the other nations range from 9.0(Australia) to 11.8% (France).[16]. Using health expenditures in dollars per person, for comparisons at the individual level, U.S. costs are $9,364, while those of the other ten nations range from $4,038 (New Zealand) to $6,787 (Switzerland).[17] To summarize, U.S. expenditures are generally over 50% higher as a national burden and nearly 100% higher in costs per person.

With these symptoms,[18] what might be the diagnosis? Two crucial concerns are that:

1. Outsized health care costs[19] relate to our poor comparative health, and they undermine the nation's economic, civil, and international security.[20]
2. The structure of the health care financing and delivery systems, with stubborn inefficiency[21] and perverse incentives, carry much responsibility for outsized costs.[22]

Congressional politics, restraining domestic expenditures but influenced by lobbyists protecting existing institutions, shifts federal costs by lowering patient benefits and raising non-federal costs. This ignores analyses showing that present institutional structures and incentives encourage expenditures that reduce quality.[23] Can we manage, rather than shift, costs and simultaneously improve quality?

Quality in Utah, like costs in Utah, is among the nation's best. If Utah sought to be the best on each Commonwealth indicator, would such a goal be adequate or should Utah go further? Nationally, are the nearly 200,000 deaths from medical errors evidence of the need for higher goals? The reviews of U.S. health care by the Institute of Medicine two decades ago and the critical assessments this year from within the health care industry say yes.[24]

The recent assessments reach beyond this year's political stalemate, which pits cost management against health benefits. The assessments shift the targets to changes in organizational structure and in incentives that improve quality while reducing costs.[25] These systemic solutions have huge possibilities and require huge effort, for a health care industry representing a sixth of the national economy and for professions having particular respect. Although such effort inevitably engages national politics, states have opportunities while waiting for the nation to find its role. There are possibilities in (A) public health programs, (B) health determinants, and (C) patient engagement.

A. The Utah Department of Health and local health departments carry responsibilities for public health programs. Most are inadequately funded, inadequately understood, and inadequately appreciated. They prevent disease and accidents. They evaluate, regulate, and fill gaps in medical care. In these roles, the Utah Department of Health tracks 15 indicators of healthy lifestyles. The indicators confirm the national reports that rank Utah high, sometimes highest, in lifestyle, though not in mental health, drug usage, and accidents. They suggest Utah can do better in each measured concern.[26] These and other measures[27] identify and develop prescriptions for decreasing health problems. The opportunities to do better go beyond financial support to promoting leadership, through public and private institutions, and promoting understanding and support for disease prevention and health promotion. The focus on prevention, though more beneficial in terms of costs, comfort, and consequences, is less adequately supported in budgets and leadership priorities than is medical care that treats problems not prevented.

B. Many opportunities to improve health come from the impact of other programs on health, a perspective developed within the "health field concept"[28] and from the related focus upon "social determinants of health."[29] Examples relating to other sections of this UCC report include:

- UCC's "Environmental Health" and "Health" reports relate in many ways. Presently the Environmental Health report suggests a "fee and dividend" approach to resource development that fairly shares burdens and advantages and could build local support for the physical and behavioral health of communities supporting extractive industries.
- UCC's "Personal Security" and "Health" reports also relate in many ways, such as in understanding the health implications of gun violence. Research about the use of guns is restricted by the politics of gun control, a matter worth attention in order to address this major cause of deaths and disabilities, especially serious among young people.[30]

C. Two challenging components of managing the quality and cost of health are engaging individuals in healthy behaviors and educating them to participate more effectively in their medical care. The Utah Department of Health's "Healthiest People" progress report[31] identifies programs associated with each health indicator. This could be a path to building new levels of individual responsibility for health care.[32]

Commendations

- Utah's ranking, with some slippage, generally **among the best five states for healthy lifestyles, avoidable hospitalizations, medical outcomes, and health care costs**.

- Utah's increasing **capabilities for health-related research and administration by governments, universities, and private institutions to improve the economy and health of the state and nation**.

- Utah's **increase of the income ceiling for Medicaid eligibility for parents to 60% of poverty**.

Recommendations

- **Utah should move aggressively to extend coverage for Medicaid and other health needs to low-income individuals.** Specifically, Utah should seek the fullest possible Medicaid expansion under the Affordable Care Act.

- **Public health programs of state and local governments should be actively supported** through increased financing, public leadership, and public understanding.

- Utah should seek and exploit opportunities to use other programs, such as those pursuing environmental quality and securing personal security to **strengthen determinants of good health**.

In summary, Utah should, without waiting on national politics, pursue improvement of access, costs, and quality, by seeking solutions in which these goals are mutually supportive, rather than competitive.

Endnotes for Article 4 (Health)

[1] Comparable nations of the Organization for Economic Cooperation and Development (OECD).
[2] In general, these measures and comparisons have not greatly changed in the last year. Compare with "Standing Up for Utah's Needs, 2016 Report," 22, *Utah Citizens' Counsel*, accessed August 2017, http://www.utahcitizenscounsel.org/.
[3] "H.R. 1628, Better Care Reconciliation Act of 2017," *Congressional Budget Office*, accessed August 2017, https://www.cbo.gov/publication/52849.
[4] Marc Lalonde, *A New Perspective on the Health of Canadians: A Working Document,* (Ottawa: Department of National Health and Welfare, 1974).
[5] "Standing Up for Utah's Needs, 2016 Report."
[6] "America's Health Rankings, 2016" *United Health Foundation*, accessed July, 2017, http://assets.americashealthrankings.org/app/uploads/ahr16-complete-v2.pdf, 134; also http://www.americashealthrankings.org/explore/2016-annual-report/measure/PH_Spending/state/UT, The table below provides examples of categories and the Utah ranking in the categories. The rankings focus on measures of health, rather than measures of health systems, i.e., the professionals, hospitals, insurers, and others directly providing health care.

Determinant Category	Number of Measures	Utah's Rank	Example Measures (determinants and outcomes)	Utah's Rank
Behaviors	6	1	Adult Obesity	6
Community and Environment	8	15	Air Pollution	41
Policy	8	44	Immunizations, Children 19-35 Months	42
Clinical Care	4	16	Preventable Hospitalizations	2
Outcomes	8	3	Diabetes	2

[7] "Commonwealth Fund Scorecard on State Health System Performance, 2017," *Commonwealth Fund,* accessed October 5, 2017, http://www.commonwealthfund.org/~/media/Files/2017%20State%20Scorecard/Utah_final.pdf?_ga=2.49272742.1892333477.1501098133-false.
[8] The table below provides the categories and the Utah rankings in the categories:

Dimension Category	Number of Indicators	Utah's Rank (2015/2013)	Example Indicators	Utah's 2015 Rank
Access and affordability	6	15/12	Adults 19-64 uninsured	6
Prevention and treatment	18	40/37	Unsafe medications	31
Avoidable hospital use and cost	10	3/3	Potentially avoidable E.D. visits	2
Healthy lives	11	4/3	Deaths amenable to health care	6
Equity	35	18/10	Low income uninsured, ages 19-64	31

[9] "What's New," *Utah Department of Health, Medicaid*, accessed September 21, 2017, https://medicaid.utah.gov/whats-new.
[10] "Medicaid Adult Expansion Overview, May 2016," *Utah Department of Health, Medicaid*, accessed September 4, 2017, http://health.utah.gov/medicaidexpansion/pdfs/MedicaidAdultExpansionOverview.pdf. The State requested several amendments to its existing 1115 waiver. The waivers would allow the state to provide Medicaid to adults, ages 19-64, without dependent children, who have gross income less than 5% of the federal poverty level (FPL)who also meet the following criteria, listed by priority to be used if state appropriation cannot cover eligible applicants:

1. Chronically homeless
2. Involved in the justice system AND in need of substance use or mental health treatment
3. Needing substance abuse or mental health treatment

The plan would also make several other program changes, among them a waiver to allow for medically necessary residential treatment services for individuals with substance use disorders.

An executive action this year, based upon the same legislation authorizing the 1115 application, increased the income eligibility limit for parents of dependent children up to 60% of the FPL.

[11] The UCC has the same comments as in last year's report. Some members of the Utah Legislature expressed concern that the enhanced financing provided under the ACA (Affordable Care Act, also referred to as "ObamaCare") for the Medicaid expansion population will be withdrawn. This is possible, but as Congressional action over the year shows, very difficult. It is a risk Utah takes in accepting any federal financial support: for highways, water, education, law enforcement, defense, etc. Budgeting involves difficult tasks that the public expects legislators to perform with fairness and intelligence, capabilities ignored in denying Medicaid expansion.

The financial benefits of Medicaid expansions are coming more into focus as states gain more experience. Legislatures and governors have sponsored studies of the expansion programs, and other independent studies have been undertaken. Even though enrollment is higher than expected in many states, these studies still generally show positive economic benefits to the states. State experiences differ because states differ in program and implementation. We suggest that topics to which Utah should give further consideration are 1) how the ongoing efforts to improve existing Medicaid programs can save state dollars and 2) how the infusions of additional federal money for full Medicaid expansion (a 90% federal contribution rather than the approximately 70% of regular Medicaid) compare with the economic returns of other state programs. A discussion by Sven Wilson of the potential multiplier effects of Medicaid expansion concludes that the direct benefits are so high that "*indirect* benefits are hardly needed to tip the balance in favor of Medicaid expansion." Sven E. Wilson, "Economic Perspectives on Utah Medicaid Reform under the ACA," 28-29, *Utah Department of Health, Medicaid,* accessed October 5, 2017, https://medicaid.utah.gov/Documents/pdfs/MedExpansionOption/EconomicPerspectives.pdf.

[12] "Ohio Medicaid Group VIII Assessment: A Report to the Ohio General Assembly," accessed July 30, 2017, http://medicaid.ohio.gov/Portals/0/Resources/Reports/Annual/Group-VIII-Assessment.pdf and Drew Altman, "No, Medicaid Isn't Broken," accessed July 30, 2017, https://www.axios.com/no-medicaid-isnt-broken-2404950733.html

[13] "Standing Up for Utah's Needs, 2016*,"* 22.

[14] David Lassman, et al., "Health Spending By State 1991-2014: Measuring Per Capita Spending by Payers and Programs," *Health Affairs* 36(2017), 1318-27. The primary source of comparative expenditures data in the U. S. is the federal CMS (Centers for Medicare and Medicaid Services). *Health Affairs* pays special attention to reporting and analyzing these data. Other low-expenditure states are Georgia, Arizona, Nevada, Colorado, Idaho, and Texas (ranging from $6,587 to $6,998). Highest are Alaska, Massachusetts, Delaware, Vermont, North Dakota, and Connecticut (ranging from $11,064 to $9,859). [14] These expenditures are for 2014. Utah holds its ranking and proportion throughout the 11 year period of the study, with annual rates of increase below the national average for 2004-2009 (4.8% v. 5.2%) and again for 2010-2013 (2.6% v. 2.8%). Health care, however, is in a significant, and uncertain, state of change. The comparable cost figures available for this study include only the first year of the ACA implementation (2014), and Utah experienced a relative rate of change higher than the nation in general (5.7% v.4.4%), which may warn that Utah has difficulty keeping up with the national policy and program changes.

[15] Eric C. Schneider, et al, "Mirror, Mirror 2017: International Comparison Reflects Flaws and Opportunities for Better U.S. Health Care," *Commonwealth Fund*, accessed September 19, 2017, http://www.commonwealthfund.org/interactives/2017/july/mirror-mirror/. The 11 nations included are:

	$/person	% of GDP
New Zealand	$4,038	10.9
United Kingdom	$4,094	10.2
Australia	$4,207	9.0
France	$4,620	11.8
Canada	$4,728	10.5
Germany	$5,119	11.0
Netherlands	$5,227	10.9
Sweden	$5,306	11.7
Norway	$6,432	9.3
Switzerland	$6,787	11.4
United States	$9,364	17.2

These and other comparisons are crude (e.g., definitions differ and comparisons make few adjustments for the differences in the relative advantages and burdens between nations, such as differences in age distributions). The

future may produce more consistency and adjustments for such comparisons. However, even present comparisons are stark enough to be meaningful. Utah's costs, in spite of Utah's special advantages such as the age and life styles, eliminate only half the difference between the expenditures in the U.S. and those in other developed nations. Still, Utah's lower costs in the U.S. are a large advantage for the state's quality of life and economic competition, and provide guidance for other states as well as a base for further improvements in Utah.

[16] "International Health Care System Profiles, Percentage of GDP Spent on Health Care, 2014," *International Commonwealth Fund*, accessed Sept. 19, 2017, http://international.commonwealthfund.org/stats/percentage_gdp/.

[17] "International Health Care System Profiles. Health Care Spending per Capita*," International Commonwealth Fund*, accessed September 19, 2017, http://international.commonwealthfund.org/stats/spending_per_capita/

[18] Growing dissatisfaction with the cost and quality of U.S. health care produces a growing number of increasingly critical assessments. Provocative analyses include two Institute of Medicine reports from the turn of the century, which, incidentally, were strongly influenced by Utah experience and analysis. Linda T. Kohn, Janet M. Corrigan, and Molla S Donaldson (eds.), *To Err Is Human: Building a Safer Health System,* (Washington: National Academy Press, 2000); Institute of Medicine Committee on Quality Health Care in America, *Crossing the Quality Chasm: A New Health System for the 21st Century,* (Washington: National Academy Press, 2001).

In 2017, two new assessments, independent of each other, draw upon the experience of physician-leaders in the Kaiser Foundation and in the Kaiser Permanente medical group. They show contrasts and similarities in the evolution of assessments. They show growing impatience with costs and quality of health care, and yet a consistency with the IOM reports that the promising solutions find complementary connections between concerns for quality and for cost. These are concerns that couple two basic public purposes rather than the concerns that politically seek compromises between the financial purposes of multiple private interests. Elisabeth Rosenthal, *An American Sickness: How Healthcare Became Big Business and How You Can Take It Back,*(New York: Penguin Press, 2017);Robert Pearl, *Mistreated: Why We Think We're Getting Good Health Care—And Why We're Usually Wrong*, (New York: Public Affairs, 2017).

[19] Some often cited causes of excessive expenditures are that:

- Competing private insurers spend over 10% more than public insurance for overhead that pays for the labor-intensive process of limiting the number of costly enrollees and benefits.
- Providers have comparable overhead expenditures to deal with the red tape insurers require while seeking such savings.
- More than a third of actual medical procedures are unnecessary or even harmful.
- Line-item billing ignores proven efficiencies of competent medical management.
- Excessive testing and delays result from poor coordination between providers or excessive concerns about documentation.
- Drug makers use exploitative pricing.

For a further listing see Pearl, *Mistreated,* and for a longer and more strongly worded recitation, see Rosenthal, *An American Sickness.*

[20] The extra share of the GDP taken by health care in the U.S. (5% to 8% more than comparable OECD countries), is equivalent to a 5-8% tax on *all* U.S. production. This tax undermines economic security by increasing the cost of living, creating a competitive disadvantage for U.S production of goods and services. This economic burden rivals that of the nation's expenditures for national defense. This burden combines with lack of affordable access to health care to threaten civil security, i.e. "domestic tranquility." Combining the threats to economic and civil security undermines foreign respect for the real and perceived ability of the U.S. to finance and sustain international military and economic influence.

[21] The Post WWII evolution of health care, from a professional to a financially competitive organizational culture, ironically separated the providers and their pricing from the financial burdens of their consumers. This is especially destructive of an effective market when the product is highly technical and uncertain, difficult to judge, and primarily understood by the provider--on whom the consumer depends for guidance.

[22] Markets should be appropriate and efficient allocators of resources, made so by establishing incentives that result in constructive behaviors. There's the rub. Originally, BlueCross and BlueShield established health insurance to share the (high and highly uncertain) risks of sickness and accidents. "Community rating" achieved this by setting premiums based upon actuarial assessments of the average health care needs in the community where the plan operated. However, when insurance evolved to multiple and competitive plans within a community, it gave a competitive advantage of lower premiums for an insurer that rated premiums on the experience of costs for a relatively healthy subset of the population (e.g., by enrolling persons who were younger, or in less dangerous occupations, or having healthier lifestyles). Such competition soon forced other plans to replace community rating

with "experiential rating." Competition also produced an incentive to write benefit plans to discourage enrollment by, or full coverage of, persons with high health risks. The primary determinants of an insurer's success became the ability to avoid enrolling those most needing care and to avoid covering the expensive care for those it did enroll. Thus the strongest incentive for insurance that was meant to share risk is to avoid caring for those with the highest risk: in any given year the 5% of the population is responsible for half of the health care costs, or the 2% responsible for a third of the costs, or the 1% responsible for a quarter of the costs.

[23] Kohn, *To Err Is Human*; Institute of Medicine, *Crossing the Quality Chasm*; Rosenthal, *An American Sickness*; Pearl, *Mistreated*.

[24] Ibid.

[25] Ibid.

[26] From, or calculated from, Utah Department of Health, Utah Health Status Update: "Utahns Becoming the Healthiest People in the Nation—Progress Review," December, 2016, accessed August 4, 2017, https://ibis.health.utah.gov/pdf/opha/publication/hsu/2016/1612_HealthiestPeople.pdf

Indicator	Rate as % of population age adjusted 2011	2015	Percentage change over two years of most recently available rates
Smoking, Adolescents	**5.2**	**3.4**	*** Better by 34.6%**
Smoking Adults	**11.3**	**9.1**	*** Better by 17.7%**
Physical Activity, Adults	**56.1**	**55.6**	Worse by 0.9%
Physical Activity, Adolescents	**18.7**	**19.9**	**Better by** 6.4%
Obesity, Adult	**25.0**	**25.0**	No Change
Obesity, Adolescents	**7.5**	**9.6**	Worse by 28.0%
Binge Drinking, Adult	**11.3**	**11.5**	Worse by 1.8%
Chronic Drinking, Adult	**4.1**	**3.7**	**Better by 9.8%**
Alcohol Use, Youth	**11.2**	**8.6**	*** Better by 23.2%**
Marijuana Use, Youth	**7.0**	**6.9**	**Better by 1.4%**
Depression, Adult	**21.8**	**20.8**	**Better by 4.6%**
Suicide Risk, Youth	**7.8**	**13.5**	* Worse by 76.0%
Suicide Attempt, Youth	**5.1**	**7.6**	* Worse by 49.0%
Drug Overdose & Poisoning	****19.5**	**NA**	Comparison not available
Unintentional Injury Deaths	****42.9**	**NA**	Comparison not available

* Changes great enough to be statically significant.

** Rate per 100,000 population

[27] A significant data set at the Utah Department of Health is the "Utah All Payer Claims Data" providing detailed and ongoing data about health care costs, conditions, and treatments. Progress report at Utah Department of Health (January 2016) "Utah Health Status Update: Healthcare Cost in Utah: Brief Summary of the 2014 Utah All Payer Claims Data," accessed Sept. 18, 2017, https://ibis.health.utah.gov/pdf/opha/publication/hsu/SE01_APCD.pdf. Comprehensive guide to Utah Department of Health data is available at the web site: http://stats.health.utah.gov/.

[28] Utah Citizens' Counsel, *Standing Up for Utah's Needs, 2016, 23-24.*

[29] "Social Determinants of Health," *Wikipedia*, accessed August 2017, https://en.wikipedia.org/wiki/Social_determinants_of_health.

[30] Rita Rubin, "Tale of 2 Agencies: CDC Avoids Gun Violence Research But NIH Funds It," *JAMA* 315 (2016), 1689-1692. Todd C Frankel, "Why the CDC Still Isn't Researching Gun Violence, Despite the Ban Being Lifted Two Years Ago," *The Washington Post*," accessed September 23, 2017, https://www.washingtonpost.com/news/storyline/wp/2015/01/14/why-the-cdc-still-isnt-researching-gun-violence-despite-the-ban-being-lifted-two-years-ago/?utm_term=.689193292c4f. Meredith Wadman, "NIH Quietly Shelves Gun Research Program," *JAMA* 357 (2017), 1082.

[31] Utah Department of Health, "Utahns Becoming the Healthiest People. . ."

[32] Pearl, *Mistreated*; Rosenthal, *An American Sickness.*