Health Care in America

Getting it right means making care accessible and affordable so the system is sustainable

AN ACTUARIAL ASSESSMENT OF HEALTH CARE IN AMERICA

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Research Conclusion of the Concerned Actuary Group*: The United States health care system is the envy of the world for its development and delivery of life saving measures, but the financing of, and access to, that system is in a perilous state.

A System in Distress

The United States Health Care System is demonstrating at least seven signs of serious financial and operational stress, including:

1. **Costs are roughly 18% on a close to $19 trillion economy.**

Figure 1
Summary of GDP, Health Care Expenditures, and Corresponding Ratios and Rates For United States by Selected Periods From 1920-2010

Chart	(1) GDP in $ Billions	(2) Health care Expenditures in $ Billions	(3) Health care to GDP (2)/(1)	(4) Annual Growth in GDP	(5) Annual Growth in Health care	(6) Excess of Growth in Health care to GDP [1+(5)]/[1+(4)]-1
1929	$88	1	1.6%			
1945	223	6	2.2%	3.8	4.9	1.1
1965	719	42	5.8%	6.0	11.4	5.1
1980	2,788	256	9.2%	6.5	12.8	3.1
1995	7,415	1,027	13.9%	6.7	9.7	2.8
2010	14,508	2,600	17.9%	4.6	6.4	1.7
2015*	18500	3,480	18.4%	4.1	4.6	.4

* From National Health Care Expenditures as found in the Statistical Abstract of the United States or other Government Data Sources.

Figure 1 above shows how costs have increased over time relative to GDP. Note that the average annual growth rates in health care costs have exceeded the average annual growth in GDP by more than 3 percentage points since 1945. From 1920 to 1945, the average excess was about 1 percentage point. And even though health care spending increases have moderated in the last few years, it is not nearly enough as these cost trends are still exceeding wage growth.

*The Concerned Actuary Group (http://www.concernedactuaries.com) was founded in 2010 by a group of prominent actuaries dedicated to providing full, accurate, and easily understood analyses of the financial realities affecting the funding and security of our nation's public finance and social insurance programs in an effort to ensure that the nation's public finance and social insurance programs are designed and managed with the actuarial discipline and transparency such programs deserve and should require..

2. **The lack of direct participation by consumers in funding health care has created an environment where consumers demand the best care with insufficient regard to its cost.**

   As employer-provided coverage and government-provided coverage has increased, out-of-pocket consumer spending decreased, from about 48 percent of total health care spending in 1960 to 11 percent in 2010. This rapid ascent in the proportion of costs covered by third parties has correlated with a dramatic increase in the ratio of health care expenditures from 4.5% to 18% during this period. However, since 2010 out of pocket costs have reversed direction and increased to an estimated 15% while the ratio of health care expenditures has remained fairly steady, increasing only a little. This strong correlation between consumer participation in funding and the cost of health care is apparent in the last row of Figure 2. [1]

Out of Pocket/ Health Care Spending and GDP Compared for Selected Years[2]

	1960	1970	1980	1990	2000	2010	2016
Ratio OOP to HCE (a)	.481	.338	.227	.191	.164	.115	.107
Ratio HCE to GDP (b)	.045	.068	.091	.121	.134	.180	.183
Ratio of (b) to (a)	.093	.205	.404	.633	.820	1.564	1.143

From National Health Expenditure Data for 1960-2013 (millions of dollars), with dollars estimated thereafter.

Figure 2

3. **Premiums for private insurance, particularly in the individual market, are spiraling out of control as cost sharing to patients has increased substantially.**

   Numerous reports from states for individual coverage show increases in 2017 premiums ranging from slightly under 10% to more than 100%, but the average is reported to be around 25%. And these increases come in conjunction with more increases in cost sharing in many cases. The premium increases are in part a function of anti-selection created by ACA provisions relating to guarantee issue, community selection and ability by those with health conditions (pre-existing) to jump in and out of the system as well as healthier individuals/groups to increase cost sharing markedly.

4. **Price restraints on providers from government programs, particularly Medicaid, are limiting patient access to care and creating upward price pressure on premiums.**

1 The link between consumers receiving care and paying directly for it was effectively broken in 1954 through passage of the premium tax exclusion. This legislation enabled employers to deduct their health care expenditures from taxable income, and created an incentive for rich coverage by consumers as employers paid for their health care. Subsequent to this date, numerous laws have been passed and coverage provisions enhanced, expanding the role of third party payers so that consumers of services became largely unaware of their true cost.

Under ACA, Medicaid enrollment has increased from roughly 55 to 70 million people. But Medicaid reimbursements are at roughly 60% of the private market on average, and have seen a continuing decline over time relative to private markets. This low reimbursement results in a limited number of primary care providers accepting Medicaid patients, meaning they either go without care or use the emergency room. This generally means delayed care, higher admission rates than necessary to the hospital, and many more health care problems. Also, the increasing enrollment and percentage decline have resulted in more and more upward pressure on private reimbursements to make up the difference in lost revenue to providers. This upward pressure on rates along with this anti-selection discussed in point #3 above are the primary culprits percentage in the rate spirals observed today.

5. **Patient/physician relationship is in distress as physicians spend more time on administration than on care.**

A report survey by the AMA estimated that only 27% of a physician's time is spent on delivering actual care to the patient while almost half is spend dealing with administrative and regulatory requirements.

6. **Tension between providers and insurers or government is emphasized.**

The combination of little consumer involvement in cost (#2) and the distress in the physician/patient relationship is resulting in a series of unintended consequences. That is, by separating most health care consumers from the health care payer, patients do not care how much health care or health insurance cost. And when health care consumers aren't interested in the price of care, health care providers can represent their own version of the services and products rendered whether by the hospital, physician or delivered by the drug company or equipment supplier. This scenario creates tension between the providers and payers whether the insurer, employer or government, who are left to adjudicate with little if any input from the user. This environment creates substantial opportunity for anti-selection in many forms. And for consumers, the *best care*, not the *best value*, becomes the health care system's driving force, driving a wedge between the patient and their medical experts.

7. **Health care and other entitlements have become a very major component of the economy and continue to expand both in cost and the number of people enrolled.**

Today, government health care expenditures (Federal, State and Local) slightly exceed 50% of all health care expenditures, or more than 1.7 trillion dollars. And enrollment in the health care programs is roughly 120 million. These government programs are the predominant part of the entitlement programs in the United States, which now comprise roughly 70% of all government spending on a Federal, State and local basis. For 2016, we estimate that out of 6.7 trillion in these government expenditures, roughly 4.7 trillion go to entitlements. These costs threaten the ability of governments to meet other needs.

8. The current system of subsidies encourages consumption while adversely affecting employment and increasing costs.

Our system provides substantial subsidies to many people who need financial help to improve or maintain better health or for other reasons. The system also, however, provides help to people who do not need it and discourages some people from working more hours if at all to avoid losing subsidies. As one example, the premium tax exclusion, which allow employers to deduct all health care premiums paid on behalf of employees, provides a deduction for all employed individuals regardless of income or assets. As a result, this deduction results in higher paid employees receiving deductions that they do not need. It also encourages employees/employers to seek richer coverage than many need, since the employer is technically paying. And richer coverage than necessary means higher utilization and higher health care costs. Of course, this means lower wages are paid by employers because the can only afford to pay out so much compensation to employees and it also means less dollars are available for hiring and research. As such, employment is adversely impacted. Another example are requirements for benefit eligibility under Medicaid. Once income or assets attain a certain level or higher, all benefits/ subsidies are immediately revoked. This rule incentivizes people to limit income/ assets to no more than the prescribed amount.

Lessons Learned

★ Efficiency matters.

The US is the leader in providing access to quality treatment and care for those with serious health conditions-We would assume this is an outcome that is desirable. The US has encouraged and subsidized the development of medical research to better human life expectancy and the quality of life and this costs money. And part of the reason health care costs are so high is that we treat all, even those with long odds of survival or short life expectancies. But another reason for the high cost is the poor efficiencies within the health care system. An objective that all citizens should be assured access to providers and quality care makes sense. But achieving this without being reasonably efficient ignores the fact that we have limited resources, and when demand exceeds supply, costs go up.

★ **Efficiency requires that consumers have access to information about all aspects of treatment and costs simultaneously, so that information is transparent and pricing across services is consistent with value.**

This is clearly not the case today. These shortfalls indicate that the patient/physician relationship needs to be dramatically improved. Comparisons of health care systems require looking at cost, quality and access to care across the entire spectrum of services. It also requires looking at the health status and other risk characteristics of the population.

★ **Ignoring actuarial principles ensures problems.**

The US spends the most on health care of any country and trends have been above that of GDP and the cost of living for a long time now- Many of our health care financing polices over many years have violated actuarial principles. The list is long but include, among others, the following:

- Creating guaranteed issue provisions ensuring coverage of pre-existing conditions without sufficient penalties or incentives to be covered previously: Insuring a house when it is already on fire is not consistent with the purpose of insurance or actuarial principles. See number x (fill in actual number when known) for more on pre-existing condition issues.
- Community rating laws: Premiums should reflect the risk characteristics of the person or group being insured. By risks we mean any identifiable characteristic for which credible evidence of a meaningful cost difference exists. Requiring premiums for some to subsidize others when the risks are not homogeneous based on clear evidence violates basic actuarial principles. But risks for which credible evidence does not exist, or for which society deems gathering this information to be too intrusive (i.e. genetic testing could be argued by some to be in this category), then premiums should not reflect this difference. A distinction must be made between such risk characteristics.
- Providing subsidies to purchase insurance that is more than is needed encourages over insurance or moral hazard. This means utilization will be higher than is necessary for optimum medical results. Too little insurance can create serious issues, but so does too much insurance.
- Level of consumer participation in funding: Medicaid and other health welfare programs have in general provided coverage without any incentives for the person to spend the money as though it is their own. This has resulted in very high utilization of services or anti-selection. Virtually all of the markets where coverage is provided by a third party in the US have this problem. The existence of the premium tax exclusion has encouraged employers to provide rich coverage for health care and with it more use of services and supplies than warranted. Government insurance programs often cover all costs as for Medicaid, but even where they do not, they allow supplemental insurance to fill in almost all gaps. Again, having little cost

sharing results in higher utilization of services, which often includes higher charges or unnecessary extra services. Cost comparisons across different scenarios based on actual experience suggest the answer is substantial. And prior studies have supported such differences, including the Rand study many years ago.

- Price Restraints: Government programs generally rely on some form of price restraint to try and control costs. These restraints have in many cases, particularly for Medicaid, limited the access of patients to care through physicians and resulted in delivery of care in more expensive settings than necessary and other problems as noted above. This is another form of anti-selection. It is also hidden taxation, since providers must overcharge private patients to stay afloat. And as noted earlier, the price restraints also shift costs to private markets, escalating costs there.

Reimbursement and other rules provided under Government Insurance programs should follow basic actuarial and economic principles with respect to rating, eligibility, etc.. Rules for private plans and providers should do so as well. See the paper on Principles Underlying Actuarial Science (include footnote).

★ Subsidies should be based on need.

The US provides substantial subsidies to many people with low incomes or assets as well as those in poor health who need financial assistance-. Our system does allow people to access care who otherwise would not be able to do so. This safety net assistance allows people to improve or maintain better health status, potentially increasing the opportunity to better their lives. However, our system also provides subsidies to many people who do not need one or who need much less than necessary. For instance, virtually everyone who is working or receiving wages receives a subsidy through the premium tax exclusion. Further, the system of subsidies is poorly coordinated across various health and other welfare programs resulting in marginal tax rates for some that exceed 100%, thereby discouraging work and encouraging people to stay in the safety net rather than helping them to exit it. For these reasons, the system of subsidies needs to be modified in many ways. That includes considering all forms of subsidies and safety nets in aggregate so that the individual or family situation as applicable is addressed in its entirety, rather than using the current piecemeal approach.

★ Respect for generational equity is essential.

The financial situation of health care and other safety nets, including social insurance and many public pension plans, is perilous and likely hindering economic growth. Clearly, generations to date have not even come close to funding the benefits used or about to be used, and our unfunded liabilities are immense. Either we need to address how to amortize these or future generations will end up seeing benefits cut. Any reforms should recognize these issues and our limits. Financial

and human resources are scarce. Generational equity would argue that each generation should contribute aggregate funds to the system roughly equal to the aggregate contributions they expect to receive. For generations where this is not possible (such as those eligible at the onset of a program), a method should exist to amortize the deficiency. Therefore, given our current situation, any future equity considerations would dictate that there should be a plan in place to amortize the majority of unfunded liabilities.

Actuarial Principles and the Process of Change

Wikipedia defines actuarial science as, "the discipline that applies mathematical and statistical methods to assess risk in insurance, finance and other industries and professions". And actuaries as, "professionals who are qualified in this field [of actuarial science] through intense education and experience. In many countries,[including the United States] actuaries must demonstrate their competence by passing a series of thorough professional examinations."

When evaluating proposals for systemic change, actuaries: a) examine the need for change (see above); b) identify the objectives and desired outcomes offered in defense of the proposed changes; c) weigh the proposed changes against the fiscal and management principles unique and appropriate to the particular system for which change is being proposed; d) weigh the changes being proposed against the fundamental principles of responsible actuarial science and e) establish criteria for evaluating results and recalibration..

❑ Objectives and Outcomes

The context in which calls for change are being made appear to be driven less by differences of opinion about desired outcomes than by different views of how to achieve those outcomes. Most of the public commentary on the American health care system suggests widespread agreement, for example, that:

- All Americans should be afforded access to quality health care, as a basic necessity of life.
- Health insurance should be available so that receiving such care will not bankrupt citizens or deprive them and their family of life's other basic necessities, including food and shelter.
- Individuals are responsible for meeting their basic needs; however, for those who are unable to do so, society (i.e., fellow citizens, through the government) will provide some assistance.

❑ Management Principles specific to the US Health Care System

- Broad-based participation is key to a stable financing system; thus, system incentives must encourage participation and discourage non-participation.

- To avoid excessive system costs associated with overutilization, participants must have skin in the game at both time of enrollment (e.g., premiums) and time of service (e.g., co-payments). Likewise, payments to health care providers should incentivize positive outcomes at reasonable cost, rather than high volume and complexity of services.
- Insurance programs, whether private or public, should be consistent with the purpose of insurance, and generally targeted at catastrophic losses rather than "everyday" occurrences.
- Providers and suppliers of medical services and products should be able to practice in an environment where they can provide the best value to those they serve while satisfying professional guidelines.
- Consumers should have access to transparent information about all aspects of treatment and costs.
- Government premium or other subsidies should be based on the needs of individuals and families. and avoid "cliffs" that may discourage efforts to increase earnings. Ideally, such needs should reflect both current income and assets, relative to unsubsidized individuals/families.
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❑Actuarially Responsible Management Principles

- ◉ Social insurance program designs should recognize and operate within the nation's financial, budgetary and human resource limitations.
- ◉ Rules for scoring (i.e., estimating costs) and managing social insurance programs should follow basic actuarial and economic principles.
- ◉ Reimbursement and other rules provided under Government Insurance Programs should reflect marketplace realities, rather than distort them via artificial price controls and cost shifting adjustments, and should include claims management and legal controls to minimize fraud and tort abuses.
- ◉ Each generation should contribute aggregate funds to the system that are roughly equal to the aggregate benefits they expect to receive. For generations where this is not possible (such as those eligible at the onset of a program), a method should exist to amortize the deficiency.
- ◉ Government subsidies should be based on need.

Getting It Right: Making America's health care system more effective, efficient and equitable.

Ultimately, the American health care system should satisfy all of the above principles. That said, corrections to existing flaws and transitions to sounder approaches will take some time to complete and there is a need to recognize the fact that the direction of the system needs to change, even if moving forward means that satisfaction of such principles occurs gradually.

To these ends, the Concerned Actuary Group proposes to undertake two blocks of work. The first is to establish a conceptual framework by applying the objectives, desired outcomes and management and operating principles referenced above to three questions, including: 1) what should the system to look like? 2) Given the answer to Question 1, how would we move from what we have to what we need? and 3) what sort of risk management plan would be needed for "maintenance" of the new system?

The second body of work will focus on equipping policy makers, the news media and the general public with actuarial evaluations of whether the proposals being offered for change can achieve the objectives of affordability and access to quality care most seem to want. The evaluations will be developed by measuring proposed reforms against the principles referenced above. More specifically, the Concerned Actuary Group will:

- correlate the conceptual framework to the underlying management principles referenced above. In so doing, the Concerned Actuary Group will identify points that are essential, important and preferred but not necessary;
- create a process for initial evaluation and monitoring Evaluation Template providing an actuarial and economically related approach (i.e. actuarial control cycle);
- examine proposals for direct and indirect effects on system (directionally) with modeling. [Note: All scenarios do not need to be based on assumptions tethered to historical statistics, as some can be based on theories where parallel information is not available. But for a system in distress, one should expect that the new proposal would reduce costs substantially or improve access to treatment or both. Any set of assumptions used as part of the modeling should be realistic and have a supporting foundation
- document findings and expectations for the purpose of comparing actual experience against these, and be prepared to adjust direction consistent with deviations from expectations. The Concerned Actuary Group will "reloop" periodically in search of satisfactory results.