American Health Care
Rethinking the Challenges, Reimagining the Possibilities

It is becoming increasingly clear that unless the health care policy decision-making process is based upon a more informed consideration of all the moving pieces and how they interconnect, our healthcare system will continue to be plagued by questionable and often disastrous redesigns and further destabilizations on a regular basis.

Meaningful discourse on health care is difficult

Health care issues impact all of us, often in ways that are increasingly frustrating and costly. We now spend over $3.5 trillion per year on health care. Rising health care costs adversely affect wage increases, retirement savings, and other critical programs, including government spending on education, security, and infrastructure and have far-reaching effects across society and the economy at large.

There are always proposals to modify or restructure the current system, but too often they seem to be the result of a tug of war among interest groups, politicians, and consumers, all with a stake in the recommendations. As a result, current health care policy decision-making tends to be more political than analytical and as such is often conveniently or willfully poorly informed at critical junctures in the process.

This fractured approach to policymaking has produced an American health care system that is arguably neither financially sustainable nor physically capable of delivering consistent, quality health care equitably.

The Concerned Actuaries of the U.S. (CAUS)has developed a powerful new tool for health care policy analysis and management to improve meaningful discourse regarding health care proposals

This new tool is the **Computer Actuarial Assessment Model** or **CA2M.**

CA2M recognizes the complexity and interconnectivity of the existing healthcare system and provides guidance on the likely effect proposals will have on healthcare delivery, access, and cost as well as on broader implications that affect the economy as a whole.

A better analytical health care assessment tool

CA2M analyzes proposals across a series of market signals and includes system and management variables that take into consideration access, cost, coverage, health status, the economy, and sustainability within each segment of the market such as Medicare, Medicaid, or small group insurance. **CA2M** considers 48 distinct intersections including population factors, cost estimates, risk factors, demographics, provider pool, and GDP just to mention a few. The figure below illustrates the segments and signals that **CA2M** models.

	MARKET SIGNALS					
MARKET SEGMENTS	COST	COVERAGE	ACCESS	HEALTH STATUS	ECONOMY	SUSTAINABILITY
LARGE GROUP	1	9	17	25	33	41
SMALL GROUP	2	10	18	26	34	42
INDIVIDUAL	3	11	19	27	35	43
MEDICAID ACUTE	4	12	20	28	36	44
MEDICAID DISABLED	5	13	21	29	37	45
UNINSURED	6	14	22	30	38	46
MEDICARE	7	15	23	31	39	47
OTHER	8	16	24	32	40	48

Assessing Proposals

CA2M provides a comparison between two projected future outcomes, one being a projection of baseline conditions or the “status quo” and the other projecting

the consequential impact of the proposed changes on the "status quo." The output of **CA2M** is intended to be used as an assessment of a given health care related policy proposal. Policymakers and the public can ascertain the overall benefit of a proposal while taking into consideration intentional and unintentional consequences that may or may not be deemed favorable. To that end, **CA2M** reports a positive or negative score for how each of the six market signals is affected by the policy change being considered as it plays out in eight distinct population segments. In general, a positive score for a distinct element indicates an improvement in affordability, expansion of coverage and access, improvement in health status, a positive influence on the economy, or a positive contribution to long-term sustainability.

Typically, a given proposal will produce a combination of expected positives and negatives. Merit, therefore, must be assessed by considering all important ways in which a proposal is likely to positively or negatively affect different aspects of the system, as well as the magnitude and duration of those effects. **CA2M** will not label a proposal as "good" or "bad" policy. It will provide insight as to the costs and benefits of the policy and to whom they accrue. There may be differences in how people weigh whether those benefits are worth the costs and whether the outcome is fair. But debating the merits of a policy proposal in light of a detailed understanding of its costs and benefits will provide for more disciplined decision making and will likely lead to better results.

By considering multiple interactions and dependencies when projecting any change to policy, including economic and behavioral outcomes, we can hopefully avoid making decisions that have far-reaching negative impacts which may be exceedingly difficult to reverse once instituted. **CA2M** provides a mechanism for such an evaluation and facilitates a management discipline consistent with expected outcomes.

CAUS beta tested **CA2M**'s capability by using only information available in 2008 to evaluate the Affordable Care Act (as enacted) against data and assumptions existing at that point in time. The test was successful in projecting a signifcant number of positive and negative outcomes that eventually occurred.

CA2M's broad analytical capacity brings enhanced evaluation and managerial capacity to the decision-making process in at least two critical areas:

- **CA2M has the ability to provide information essential to the growth and management of community-based health care.** Historically, healthcare delivery has been based almost exclusively on the medical treatment of illness. Recently, however, interest and investment have grown in a more multi-dimensional approach that may reduce costs and improve health status by adding strategies that stress health promotion, disease prevention, and personal responsibility to the traditional treatment. The continued growth and success of community-based health efforts depend on its ability to engage with the multitude of physical, lifestyle, economic and environmental factors affecting the community. There are strong indications of support for such initiatives from policymakers, but to make that support meaningful, they will need access to the sort of complex, interactive, holistic analysis **CA2M** can provide.

- **CA2M can flag potential design flaws in advance of massive investments of public and private dollars that do not yield the results promised.** Current healthcare policy debate tends to focus narrowly on the most obvious and easily understood projected outcomes of a particular policy change, while other ramifications are ignored. Consider, for example, the recent expansion of Medicaid coverage. Discussion and media coverage have focused almost exclusively on coverage for those previously uninsured (a benefit) which must be funded by federal and state taxpayers (a cost). This one-dimensional assessment fails, however, to address other relevant realities such as
    - a massive increase in the number of people with coverage does not translate into better access to health care unless there is an equivalent increase in the supply of health care (providers and other infrastructure needed to be able to deliver care to those people[1])
    - without an expansion in the health care supply, existing Medicaid beneficiariesmay find their access affected

- depending upon how the costs are allocated, health care costs may increase for employer-sponsored beneficiaries and individuals paying for care out of their own pocket, and risk may be shifted onto providers in the commercial insurance market

Similar issues arise when assessing the impact of the Affordable Care Act (ACA). Clearly, ACA resulted in more Americans having health care coverage. A reported 27 million were added to Medicaid alone and an additional 10 million received some type of subsidy to offset the cost of their health plan. However, while more Americans are insured, upwards of 45% of the US adult population is now underinsured as a result of rising healthcare premiums coupled with higher deductibles.[2] Because **CA2M** analyzes how a change in any important dimension of the healthcare system might affect a wide range of other significant components, it would have identified all of these issues.

Performance matters

Our healthcare system requires consistent, persistent, multi-generational management. Hence, system performance needs to be monitored to enable management of the program so actual experience is likely to achieve expectations. The model has been developed utilizing recognized actuarial, economic, andmanagement principles, based on data and experiential driven assumptions. Because the model attempts to maximize algorithmic sensitivity to new data and experience so that the assumptions evolve to reflect the most current information it, therefore, serves as a meaningful management tool, providing interested parties with a clear overview of the current operational state of our healthcare system.

A key findings report summarizes the results from the application of **CA2M** model in a format that is easy to understand by the general public. The model and the key findings report reflect and balance the interests and expectations of the multiple stakeholders in the health care system (e.g., beneficiaries, other citizens, future generations, and providers).

A unique opportunity

To the best of our knowledge, **CA2M** is the first and only model intended and designed to analyze and evaluate the complex and interactive totality of the American healthcare system. **CA2M** reflects primarily actuarial analysis with additional contributions to date from a combination of economists, medical professionals, health data experts, and communication specialists. Our efforts are dedicated to helping policymakers and their constituents determine whether the changes being proposed will actually achieve their stated objectives while identifying and helping to avoid unintended consequences.

Additional information can be found at **www.concernedactuaries.org**

1 Dall T, Chakrabarti, R., Iacobucci, W., Hansari, A., West, T. *The Complexities of Physician Supply and Demand: Projections from 2015 to 2030*. Association of American Medical Colleges;2017.

2 Collins S, Bhupal, H., Doty, M. *Health Insurance Coverage Eight Years After the ACA: Fewer Uninsured Americans and Shorter Coverage Gaps, But More Underinsured*. The Commonwealth Fund;2019.

Actuarial principles matter

Actuaries are professionals who specialize in evaluating risk, especially financial risk, and designing creative ways to reduce the likelihood of undesirable events. Actuaries are rigorously trained in mathematics, statistics and business; pass a series of exams to demonstrate their proficiency in these disciplines; adhere to a comprehensive codeof conduct encompassing diligence, impartiality and public interest; and meet continuing education standards assuring up-to-date knowledge. Actuaries typically specialize in a specific discipline such as life, health or property-casualty insurance or pensions. They often work at insurance companies, consulting firms, financial institutions or government agencies designing safeguards to manage risks inherent in our society's public and private financial security programs. Actuarial bodies recognize the importance of acting in the public interest. Their strong analyticalskills, business acumen and comprehensive understanding of risk can provide invaluable perspectives on identifying problematic aspects within the design of a reform as well as ways it might be improved.