



CAUS
Concerned Actuaries of the U.S.

COVID-19: Better Informed Decision-Making is a Necessity, Not an Option

THE CHALLENGE: DECISION-MAKERS NEED TO BE BETTER INFORMED, LESS ERROR-PRONE, AND MORE EFFECTIVE AT DEVELOPING SUSTAINABLE SOLUTIONS TO THE CHALLENGES WE FACE.

As death tolls rise, economies flounder and the future hangs in the balance, public and private sector decision-makers - and their constituents, investors, and employees - are reminded almost daily that the COVID 19 has made the personal pain and societal penalties for decisions that do not work increasingly unacceptable. The challenges of this age require a significantly more informed understanding of the complex and interrelated challenges we face.

COVID 19 has made the personal pain and societal penalties for decisions that do not work increasingly unacceptable.

PPP loan plan a mess so far for small businesses riding out coronavirus crisis

Rhonda Abrams Special to USA TODAY
Published 9:48 p.m. ET Apr. 7, 2020 | Updated 11:09 a.m. ET Apr. 6, 2020

The coronavirus is devastating U.S. hospitals, which will lose \$200 billion in revenue by the end of June

Published: June 19, 2020 at 11:54 a.m. ET



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Under Covid-19, University Budgets Like We've Never Seen Before

Unprecedented times require unprecedented strategies and actions.

By Paul N. Friga | APRIL 20, 2020 | PREMIUM CONTENT FOR SUBSCRIBERS. [SUBSCRIBE TODAY](#)

Unprecedented times require unprecedented strategies and actions.

Under normal circumstances, it would be considered a cheap shot to Monday-morning quarterback the decisions made by those in the arena when all hell broke loose. But these are not normal times. Now when things go wrong our own individual, corporate and governmental circumstances are more immediately, directly, and adversely affected and it is irresponsible not to determine why they went wrong and what we can do to minimize mistakes and errors in judgment. More to the point, given the severity and magnitude of the exposure to human misery, economic dislocation, and governmental failures we face, the need to improve our decision-making capacity has become an imperative we must embrace and address in order to survive this unprecedented and increasingly durable challenge.

Consider, for example, the three areas in which informed, effective decision-making is most important - containment and treatment of the viral infection; protection and maintenance of the economy; protection and maintenance of the institutions responsible for addressing these two issues and for the wellbeing of the public at large. In the first arena, informed decision-making was obviously and disastrously inhibited by a lack of reliable information; an absence of analytical consensus; atrophied response options limited by supply shortages; and a degree of insensitivity to, or lack of awareness about, the effect containment and treatment decisions would have on the economy and individual households.

Informed decision-making in the economic arena was also made difficult by a shortage of reliable information and seriously impaired by the variety, unpredictability and degree



of effectiveness or lack thereof of the public health, regulatory and governmental responses that emerged; and, perhaps most importantly, by the urgency of the need to help people and businesses as quickly as possible. Institutional decision-makers were caught between a rock and a hard place on a variety of fronts. School budgets and outcomes were tied to statutory requirements that could not be met if the students were not in class. Universities and colleges grappled with unfamiliar technology to deliver what many saw as a diminished product while simultaneously addressing safety concerns related to dorm accommodations and lifestyles. Hospitals and clinics fought with each other for PPE to protect their staff from unexpectedly large influxes of infected patients, while Long-term Medical Care Facilities were afflicted by outbreaks more intense than expected. Governments at the national, state, and local levels were overwhelmed by unexpected demands, “yesterday” demands for services and products, and a lack of reliable information.

Two constants adversely affected decision-making in all three areas. One, the shortage of necessary information, has been noted. The other was - and is - inadequate analytical capacity. The decision, for example, to tie grant waivers on Payroll Protection loans to a “must spend within eight weeks” requirement could only have emerged from a decision-making process that failed to note that public health officials were pursuing an aggressive containment strategy that entailed employers having to close their plants and offices. That oversight complicated implementation, inconvenienced millions, hurt thousands, produced embarrassing media coverage across the nation, and further eroded public confidence in major public and private institutions. It was not the only insufficiently informed decision.



THE OPPORTUNITY: THE CONCERNED ACTUARIES OF THE U.S. HAVE DEVELOPED A COMPARATIVE ASSESSMENT MODEL CAPABLE OF PROVIDING THE ANALYTICAL CAPACITY DECISION-MAKERS NEED TO MAKE BETTER INFORMED, LESS ERROR-PRONE, AND MORE EFFECTIVE AND SUSTAINABLE SOLUTIONS DECISIONS.

More than two years ago, the Concerned Actuaries of the U.S. (CAUS) embarked on a collaboration with the Committee for a Responsible Federal Budget (CRFB) to enhance decision-making processes affecting the American healthcare system.

At that time, the CAG: started with the assumption that when appropriate and effective adaptation to change is essential, the integrity, relevance, and completeness of the process utilized for addressing change and managing the adaptation become the most important determinants of success (and failure); noted that Americans wanted care that was more affordable, more accessible, more equitable, more financially sustainable and that delivered better outcomes and observed that while our goals were laudatory, we did not engage the complexity and interactive phenomena of the health care system with the understanding and rigor required to actually achieve those goals; concluded that: decision-makers did not have access to the holistic analytics they needed to make informed decisions; and, without the necessary data the general public could not effectively consider the merits of the changes being proposed.

To address these challenges, the CAG developed a matrix-based model that can provide timely, relevant, and powerful analytical ability to determine whether proposed changes will improve or harm America's health care system. It is a developmental tool intended to help policymakers and their constituents determine whether or not the changes being proposed might actually achieve their stated objectives and whether or



not there might be unintended consequences attached to such changes. To that end, the model output highlights both the magnitude and duration of positive and negative consequences and challenges advocates to address questions that experience tells us need to be asked.

CAUS' efforts are focused on improving the health care policy decision-making process. We believe that doing so will lead to better, more affordable, and accessible health care. We also believe that more informed policy decision-making can and will improve the nation's financial decision-making and consequently enhance the sustainability of its social insurance programs and governmental ability to fund and manage the delivery of its other public responsibilities such as defense, education, and infrastructure maintenance.

RELEVANT ACTUARIAL PRINCIPLES

- **MODEL CONSTRUCTION: A MODEL OF SPECIFIC PHENOMENON CAN BE BASED ON THE OUTCOMES OF EXPERIMENTS PERFORMED ON THAT PHENOMENON, ON OBSERVATIONS OF RELATED PHENOMENA, ON THE KNOWLEDGE RELATED TO THE PHENOMENON ITSELF OR ON A COMBINATION OF ALL THREE.**

CAUS' Comparative Actuarial Assessment Model (CA2M) can be a game-changer in the effort to inform and improve health care policy, operations, and distribution decision-making. CAUS believes that the CA2M design could be modified to help policymakers, employers, government officials and public health administrators address the COVID 19 challenges and opportunities touching lives and futures across the nation.



CA2M Design: The CA2M matrix cross-references six market impact signals, including cost, coverage, access, health status, economy, and sustainability across the eight existing coverage delivery mechanisms including large group, small group, individual, Medicaid Acute, Medicaid Disabled, uninsured, Medicare and other. The cross-referencing produces forty-eight analytical intersections that vastly enhance the ability to identify and understand the potential impact of proposed changes to the health care system.

CA2M Analytical Capability: CAUS recently conducted a beta-test of the CA2M that underscored both the value of enhanced analytical capability and the model's ability to generate critical, timely, relevant, and accurate information for citizens and policymakers. Using only data available in 2008, the beta test focused on determining what sort of information the CA2M might have provided health care policy decision-makers had it been available when they were assessing the Affordable Care Act pro to passage in 2010.

As suggested in the actuarial principles above, the value-added test for any model is the model's ability to produce projections that consistently prove over time to be within a reasonable range of accuracy. The CA2M beta-test projections - noting again that these projections were based only on data available in 2008 - passed this test with high marks (see below).



TO EARN THE TRUST OF THE ELECTED OFFICIALS AND POLICY MAKERS AND THE PEOPLE THEY SERVE, CA2M PROJECTIONS MUST CONSISTENTLY OVER TIME PROVE TO BE WITHIN A REASONABLE RANGE OF ACCURACY.

HOW WOULD THE PROPOSED ACA AFFECT THE COST OF MEDICAID?

06

MEDICAID COSTS



In 1992, total Medicaid including CHIP are estimated at roughly \$110 billion. In 2008, cost (Federal and State combined) is estimated at about \$350 billion. In 2017, the corresponding actual cost is estimated at about \$600 billion. CA2M projections reasonably match these totals.



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HOW WOULD THE PROPOSED ACA AFFECT OUT OF POCKET COSTS?

06

OUT-OF-POCKET COSTS



In 1992, total out-of-pocket health care costs are estimated at roughly \$100 billion. In 2008, out-of-pocket costs are estimated at about \$290 billion. In 2017, out-of-pocket costs are estimated at about \$370 billion. CA2M projections reasonably match these totals.

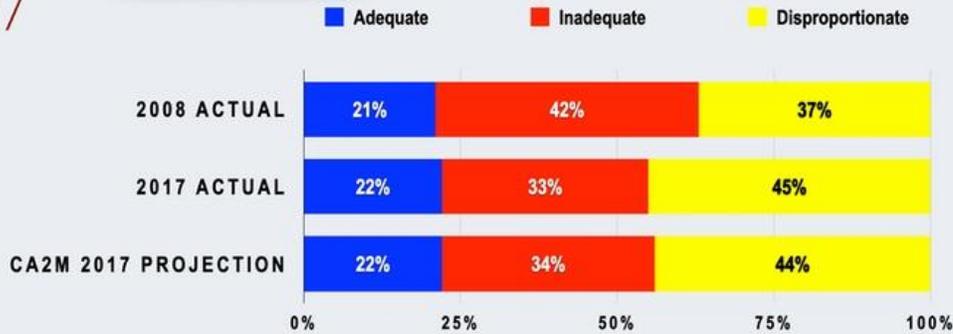


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HOW WOULD THE PROPOSED ACA AFFECT THE ADEQUACY OF COVERAGE?

COVERAGE



CAG categorizes "coverage" as either "inadequate," "adequate" or "disproportionate" based on an analysis of income. The definition used is based on income and out-of-pocket costs related to income after subsidies.

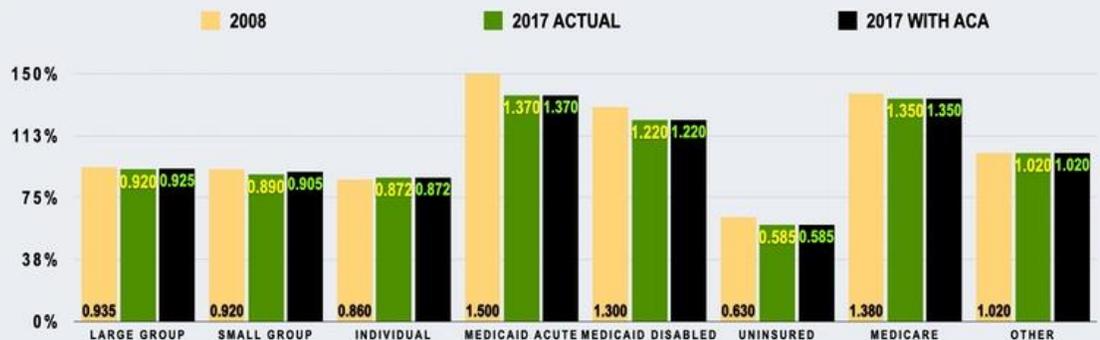


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HOW WOULD THE PROPOSED ACA AFFECT BENEFIT UTILIZATION?

BENEFIT UTILIZATION



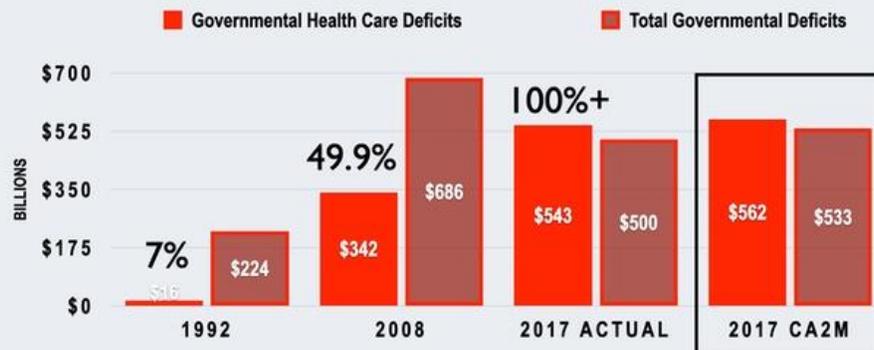
Changes in benefit utilization are measured by market group against a base of 1. Benefit utilization levels in all markets are linked to benefit levels and subsidies. Benefit utilization levels in aggregate have changed very little over time as subsidies have tended to increase as cost sharing levels increased.



AND...THE CA2M'S ABILITY TO TRACK DATA OVERTIME CAN PROVIDE INSIGHTS INTO IMPORTANT QUESTIONS.

How would this proposal affect the relationship between health care costs and governmental deficits?

08



In 1992 very little of the total deficit is attributable to health care, where as in 2008 the figure is about 50% and in 2017 the entire deficit is attributable to health care. As an additional note, a functional cost analysis of Medicare across the entire Federal Budget for 2017 using CA2M indicates that Medicare is responsible for at least 240 billion of the total Federal deficit in 2017. This number is expected to increase over time as more people join Medicare without any program change.