Consistently Framing The Design And Analysis Of Health Care Proposals

by Mark Litow and Bob Shapiro

The words "profession," "professional" and "professionalism" frequently appear in the statements, programs and in the organizational chart of the American Academy of Actuaries and related partner actuarial organizations. These are important words and deserve to be constantly on our minds and in our consciences. The concept of a profession carries with it the idea of service to the public. Today a unique opportunity, one could also say a professional obligation, for public service is presented to actuaries. In the United States, the national social insurance systems face serious problems. Any list of domestic issues has Medicare and Social Security in prominent places.

— Jim Hickman, FSA, MAAA, ACAS, 2006

We are members of a group referred to as the Concerned Actuaries Group, and this group has been working for more than three years in the spirit of Jim Hickman's words. We believe strongly that each of us has a personal responsibility to serve the public and to lead such efforts whenever and wherever we can. If we fail to contribute, we fear we will regret our lack of involvement and look back on this time as a low point for our profession—actuaries being absent from the discussions where their unique expertise was required.

Nowhere is our leadership needed more today than in framing the ever intensifying national health care dialogue. Actuaries have a responsibility to assure that the design, costing and management of proposed Medicare and health care programs are developed with actuarial discipline. Actuarial discipline involves much more then setting assumptions and pricing or costing a proposed program. It requires that management processes be established in a way that is consistent with the underlying assumptions, that experience is measured against those assumptions as it unfolds, and that adjustments are made based on the learning that occurs in evaluating differences between what was expected and what actually occurred.

The Actuarial Control Cycle is a general actuarial framework that is an integral part of actuarial training. The Actuarial Control Cycle refers to the recurring cycle of specifying the problem, developing a solution, monitoring experience and refining the problem specification. Let's look a bit deeper at each of the three elements of this continuous cycle.

Specifying The Problem

Our national health care system represents a large and growing proportion of our gross domestic product and Medicare is a substantial part of our national health care system. Largely funded through payroll and federal income taxes, Medicare is also an important part of our U.S. financial system. It is responsible for a large part of the growing deficit that threatens the future viability of our economic system and standard of living.

Reasonably designed, priced and managed health care makes compelling economic and moral sense. Our current Medicare system and many related parts of our health care system are not reasonably designed, reasonably priced, nor reasonably managed. To remedy this situation, tenets such as the following need to be accepted (or overtly rejected):

1. Health care is not an unlimited resource. Health care must be designed to be affordable within the economy.
2. Medicare and other health care systems should follow actuarial and economic principles such as:
    a. Use established risk pooling techniques that create credible and reasonably predictable results. Pooling like risks improves predictability. Pooling unlike risks often creates adverse selection and higher costs.
    b. Minimize adverse selection. Mismatching of risk classification in cost/benefit comparisons and/or distorting demand and supply or other economic balances lead to inefficiency or other consequences. These impacts can result in some blend of reduced affordability of, and access to, quality treatment.

c. Minimize hidden induced demand. Overuse of insurance and third-party payment creates excessive costs. Insurance should protect only against catastrophic events and contingencies that are beyond the budget capacity of the insured.

d. Monitor expected results. Establish clear initial assumptions for future behavior and experience, tie program design and management to those assumptions, manage to the scorecard of related expectations and adjust management practices periodically as actual experience differs from expectations.

3. Health care programs must meet to-be-established standards for access, quality and financial soundness.

4. Program management must preserve demonstrable financial equity between generations of citizens.

Establishing a consistent (and actuarially sound) foundation for assessing the costs and benefits of each and every current and new Medicare or other health care proposal is critical. Current analytical approaches are often opaque, not comparable. This situation is too dangerous to continue, with different constituencies often using different numbers to create demand for answers they want to promote. Each new proposed program should be scientifically sound, with clear standards for management that maintain the integrity of the original projections and related expectations. If this management discipline is not applied, we can continue to expect out of control costs and dissatisfaction. We cannot afford even to consider such a scenario.

Developing A Solution

Solution development begins with agreement on basic tenets, such as those offered earlier in this paper. A baseline (expected) case will underpin program costing and future management. Sensitivity tests—under varying assumptions—provide insights into where variations might be expected to occur and suggest indicators that show such occurrences are evolving. This management discipline is essential to the long-term success of any financial system.

Some basic questions that need to be addressed in any actuarial/economic analysis are set forth below:

1. *Induced Demand:* How does utilization differ under Medicare or other potential health care programs from what might be expected if citizens had insurance for only contingent and catastrophic events?

2. *Anti-Selection (Including Risk Pooling):* How and where is utilization increased because of design and management of the health care program enables individuals to "game" the system.

3. *Alignment:* What incentives are needed to motivate preferred behavior and avoid misuses of risk classification and pooling?

4. *Financial Soundness:* What are reasonable targets for Medicare and other health care systems, including allowance for margins to address fluctuations over time?

5. *Monitoring:* What types of corrective actions should be considered and what will trigger them based on a comparison of actual to expected results?

6. *Key Assumptions:* Critical assumptions driving the necessary actuarial and economic analysis should consider:

   - The program design and related risk characteristics including:
     – Financial security provided
     – Political sustainability
     – Political accountability
     – Affordability over time
     – Administrative efficiency
     – Intergenerational equity
     – Public acceptability (consider values, morals and ethics)
     – Level of individual choice

- Tooling up expenses for the program
- Ongoing administrative costs
- Investment earnings
- Potential variability

Monitoring Experience

Pricing and costing assumptions for a new health care proposal generally start with a review of past experience on similar programs with similar features. Periodic monitoring of an existing program includes a similar exercise—reviewing past experience and trends relative to expectations that were set when the program was last evaluated from a cost perspective.

Projections are never realized exactly. For example, actual claims experience may be substantially different from that expected due a number of factors, including:

- Unanticipated impacts of program design (e.g., imprecise or otherwise flawed definitions of benefits).
- Inadequate program management (e.g., paying for claims that weren't envisioned by the program contract).
- Economic conditions (e.g., a recession generally increase claims costs).
- Over utilization (e.g., often present where the program covers more than contingent and catastrophic events).
- Inadequate incentives to motivate preferred behavior.
- Improper utilization of risk classification and pooling principles.

When the causes of the differences between actual and expected claims—or deviations of actual from expected for any other assumption—are determined, changes in the design or management of the program can be implemented so that actuarial discipline in the control cycle is restored. When such detailed monitoring and management adjustment is not done, as is the case with Medicaid, Medicare and other parts of the health care system, problems tend to compound themselves and eventually transcend effective control of the program managers.

There are other factors, such as the combining of social and insurance principles in our Medicare program, that must be carefully assessed with related assumptions set and periodically modified accordingly.

Managing Future Plans

The integrity and manageability of future health care plans and proposals requires consistent continuing application of the type of discipline and transparent process described in this paper. If this practice was followed, a rational discussion of alternative programs and implications of those alternatives could occur. As things stand today, with every program having its own set of assumed facts and expectations, and with a few programs establishing the needed protocols to manage to underlying assumptions, it is no wonder we are struggling the way we are.

Actuaries are trained to understand, quantify and manage contingencies and risks. Although there will never be a perfect health care system, our current Medicare and health care systems are neither designed nor managed in a way that is effective or sustainable. We believe that any sustainable health care system has to reflect the principles, standards and management philosophies reflected in this paper.

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